# Vygotsky's theory as a tool of imagination development in primary school

The thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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## **ABSTRACT**

The cognitive process of imagination is a fundamental faculty developed in childhood. This research extracts a testable four-stage model of development from the conceptual writings of Lev Vygotsky. Literature is given that provides an overview of the field of imagination, within which a conceptual account of Vygotsky's theory of the imagination is seated. From this discussion, a Vygotskian four-stage model of the imagination is extracted. The study, conducted as a case study, employed a robust research design, incorporating qualitative analysis methods providing a nuanced understanding of the creative evolution among participants and shedding light on the intricate processes of artistic development during early education. Notably, the researchintroduces a novel approach to the analysis of projective drawing, showing a significant achievement within the thesis. To test the veracity of this four-stage account, three classes of Year 5 10-yearold primary school students were given creative tasks to produce materials from which their imaginative expression could be ascertained. Year 5studentswere chosen as it was expected they would demonstrate a range of imaginative products across all four stages, given they were at an ongoing developmental age. Twoimaginative tasks were carried out: making an unreal animal drawing and a companionpiece of a written fairy tale. Results demonstrated that the four-stage model of imagination proved to be an apt tool to categorise the stage of development shown in an imaginative product. Valuable insights were also gained that may inform the development of effective teaching methodologies to support the imaginative development of primary school children. Results suggested that exposure to diverse, imaginative activities and creative experiences significantly enhances the expression and, perhaps more importantly, the development of a child's imagination. The teacher and parents' roles in involving children in such experiences are highlighted. It is hopedthese findings may contribute to the further development of Vygotsky's theory of the imagination and provide methodological recommendations for practical classroom applications.

#### **DECLARATION**

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint award of this degree. I give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through web search engines unless permission has been granted by the University to restrict access for a period of time.

Valeriia Sibakova

Adelaide, 4 August 2023

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#### **CHAPTER 1: INTRODUCTION**

#### 1. 1. Introduction

The development of imagination has been a topic of great interest in the field of educational psychology, as it is considered to play a crucial role in cognitive development and academic success. Among prominent theoretical frameworks, Vygotsky's imaginative theory posits a developmental hierarchy of imagination stages, suggesting that imaginative capacity changes with age and social context. While his ideas have been widely influential in educational psychology, relatively few studies have directly examined the relationship between Vygotsky's imaginative theory and primary school students' imaginative expressions. Therefore, this study aims to address this research gap by applying Vygotsky's imaginative framework to primary school students through their drawings and composing of written fairy tales. The research has two main aims. Firstly, to synthesise Vygotsky's theory of imagination into a practical four-stage model and investigate its validity and reliability through its application to primary school students' imaginative expression. And secondly, to examine whether a rich learning environment can enhance the development and, thus, expression of imagination in the primary school context. The inclusion of Year 5 students in this study is justified based on their efficient level of visual and graphic expressions, which enables them to participate, be observed, and undergo evaluation effectively. At this stage of their development, these students have acquired sufficient skills and abilities to express themselves through visual mediums, demonstrating a level of competence and maturity that makes them suitable candidates for examination within the context of this research (Ursyn, 2018). Their capacity to effectively communicate ideas, emotions, and experiences through visual and graphic means provides researchers with a valuable opportunity to observe and evaluate the intricacies of their creative and imaginative processes.

By addressing these aims, this research seeks to contribute to a better understanding of the nature of imagination and its role in cognitive development and provide valuable insights for educators to improve the educational outcomes for their students. The hope is to assist in developing strategies to promote imagination development nested within social interaction, emotional intelligence, and meaningful learning experiences in the classroom.

Several theories of imagination were proposed over the 20<sup>th</sup> century, each highlighting their unique perspectives on the nature of imagination and its role in cognitive development. It is Vygotsky's seminal theory (1962/2022) of imagination that has been chosen for this study because it offers a well-developed theoretical framework for investigating the development of imagination as a cognitive process in primary school students and may provide insights into how to enhance imaginative thinking in the classroom. In addition, his sociocultural perspective offers a comprehensive framework for understanding the complex interplay between social interactions, cultural influences, and cognitive development, including the development of imagination. By examining imagination through Vygotsky's lens, we can better understand how children's imaginative capacities are shaped by their social and cultural environments.

Furthermore, Vygotsky's emphasis on the role of language and communication in cognitive development aligns well with the study's focus on primary school students. Language plays a crucial role in fostering imaginative thinking and creative expression. Vygotsky's theory provides insights into how language acquisition and use contribute to the development of imagination during this critical stage of education. Moreover, Vygotsky's theories have had a lasting impact on educational practices and pedagogy. His ideas have influenced teaching methods that promote imaginative thinking, collaborative learning, and scaffolding techniques to support children's cognitive development. By incorporating Vygotsky's concepts into this research and creating a model of developmental stages, we can contribute to the existing body of knowledge on how educators can effectively nurture and enhance children's mental abilities.

Vygotsky's work continues to be widely cited and referenced in contemporary child development and education research. By building upon his theories and integrating them into our study, we ensure that our research is grounded in a solid theoretical foundation and contributes to the ongoing scholarly discourse on imagination and child development.

Vygotsky's theory (1962/2022) of four stages of imagination proposes that imaginative processes involve distinct mental representations developed through cultural and social interactions. These imaginative stages are not fixed but evolve through social and cultural experiences over time. The ability to use language and symbolic representation is critical for advanced forms of imaginative thinking. This theory emphasises the mind's ability to combine elements of reality to form new products of creative activity, with the highpoint known as "crystallised imagination".

The first stage of imagination is the reproductive stage of imagination which is based on experience and copying or reproducing elements of reality. It can be observed in the classroom when teachers might provide students with opportunities to reflect on their experiences and use them to generate new ideas.

The second stage of imagination is the expression of one's experience which shows a connection between imagination and reality. A measure of the person's experiences is now combined to bring something new into the mere reproduction of reality. This stage of imagination is possible thanks to social experiences, such as exposure to different cultures, perspectives, and ideas. It can be achieved using multimedia resources, such as videos, podcasts, or virtual field trips, to expose students to new experiences and broaden their horizons. Additionally, group work and collaborative projects can allow students to share their experiences and learn from their peers.

The third stage of imagination is emotional reality. It is the most subjective and internal type of imagination, guided by the internal logic of feelings. In this case, literature, music, or art can evoke emotions and inspire students' creativity. For example, students can listen to music and write poetry or stories inspired by feel their emotions or create artwork that represents their feelings.

Finally, the fourth stage of imagination is crystallised imagination. It represents the full circle of creative activity and occurs when imagination becomes embodied within reality and begins to influence other things. It might be possible in the classroom when students share their creations with others and see their impact. For example, students can showcase their artwork in a gallery or create a performance inspired by their writing.

The four stages of imagination identified in Vygotsky's theory (1962/2022) may provide a valuable lens for analysing and interpreting the expressions of imagination in primary school students' drawings and fairy tales. Moreover, these stages hold the potential to be transferred into a testable pedagogical model, allowing educators to apply and assess their applicability in educational settings.

The study utilises a qualitative research approach, bringing three data sets in a triangulation design to bear on the phenomenon of the imagination. Data will be collected from two creative tasks carried out by Year five primary school students in South Australia—student drawing and fairy tale tasks. In addition to this will be semi-structured interviews with their teachers and open-ended questionnaires with their parents. The student data will be analysed within the framework of Vygotsky's theory

of imaginative four stages through the model derived in this study. The two tasks carried out by the Year 5 students are a fictitious animal drawing and a companion fairy tale involving this animal. Previous studies utilising qualitative methods have underscored the significance of drawings (Musichenko, 2022) and the reading and creation of fairy tales (Vygotsky, 1962/2022) to evidence the development of imagination. The teacher interviews will provide insight into the classroom social context within which the students are creating, whilst the parents' questionnaires are intended to gather information on the home context of factors that may influence their development of imagination.

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## 1.2. The Research Questions and Aims

This research focuses on consolidating Vygotsky's theory of imagination into a practical four-stage model and exploring the accuracy and dependability of Vygotsky's theoretical framework concerning the imaginative expressions of primary school students. Secondly, it is aimed to investigate the potential enhancement of imagination and its development among primary school students within a rich environment. The study aims to examine whether creating an environment that is stimulating and immersive can positively impact the growth and enrichment of students' imaginative capacities. Accordingly, there are two research questions:

- Can Vygotsky's conceptualisation of imagination be synthesised into a verified model of four developmental stages?
- 2. How do the expressions of the four stages of imagination vary across year five students, as shown in their creative work, and what factors might explain these differences?

To answer the first research question, a comprehensive literature review was conducted to examine the classification of developmental stages of imagination. The thesis extensively examines relevant literature to establish the contextual foundation for Vygotsky's work, particularly emphasising the historical context in which Vygotsky operated. The literature review thoroughly explores Vygotsky's key writings, offering a comprehensive analysis of the imagination and its role in the process of cognitive development. This analysis culminates in a cohesive articulation of Vygotsky's theory of imagination, comprising four distinct stages and creating a testable pedagogical

model. This four-stage model serves as the fundamental framework for analysing the qualitative findings obtained in the study.

To address the second research question, a triangulation approach was employed, as stated above, which involved 64 primary school Year 5 students in three classes at three different schools, their three teachers, and 64 of their parents. The three primary schools were located in Adelaide, South Australia.

## 1.3. Theoretical Framework and Methodology

The theoretical framework for this research is based on the heuristic research method developed by Moustakas (1990). This discovery-oriented method emphasises the perspective of the researcher and their own experiences as a fundamental and necessary element (Jackson, 2020). Heuristic methods are characterised by their intuitive approach to achieving conscious goals and a focus on deep understanding through the researcher's own involvement (Giorgi, 2020).

The heuristic research method is particularly well suited for this study as it allows for freedom from the limitations of statistical assumptions, enabling the identification of significant differences, exceptions, and complex patterns of relationships (Giroux, 2020). Furthermore, qualitative data allows for multi-layered interpretations and the ability to return to data collected in earlier stages of the study. This method also values the analysis of inconsistencies, deviations, and omissions as valuable information (Giroux, 2020).

The main goal of the heuristic inquiry is to achieve a cohesive understanding through the research process and personal discovery as a combination of science and art (Moustakas, 1990). As such, heuristic research methods may offer the most significant potential for understanding the manifestations of all stages of imagination, creating order, and addressing questions arising from the activity of imagination and its impact on the cognitive processes of primary school students.

By employing a heuristic approach, this research can more effectively navigate the complexities of this challenging and highly subjective research topic and potentially uncover novel findings and perspectives related to the subject matter of the study. In the heuristic vein, moments of self-reflection will be included in the discussion below, as the researcher's subjective process becomes a living aspect of the research.

#### 1.4. Significance and Contribution of the Study

Other researchers have also referenced and utilised Vygotsky's work as a foundation for their investigations into imagination and cognitive development (Shields, 2020; Pearson, 2020; Vyshedskiy, 2020). Therefore, this study builds upon and contributes to a larger body of literature that recognises the significance of Vygotsky's framework in understanding the role of imagination in learning and cognitive development. But as yet, no one has distilled and tested methodically the four stages of the imagination reified by Vygotsky in his writings. This research aims to fill this gap by identifying the effectiveness of the model of four stages of imagination and testing for the presence of all four stages of imagination in the primary school context and by examining how each stage, as defined by Vygotsky, affects the acquisition of knowledge in the students.

This four-stage model has the potential to assist educators in assessing the imaginative products of their students and gauging their development. Previously, Vygotsky's theoretical framework on imagination may have been seen as impractical and difficult to apply in the classroom. However, this model provides a tangible and workable approach to implementing his ideas in an educational setting. By enabling educators to understand better and develop their students' imaginative capacity, this model can enhance the learning experiences of primary school students and contribute to their academic success.

Furthermore, the research results can be used as a basis for further studies on the development of imagination in older students and adults. Here we would expect a much higher percentage of imagination product to be expressed at the crystallised level, but such a hypothesis is yet to be tested.

#### 1.5. Background

The ability to effectively and innovatively solve new problems has become essential in today's world. Therefore, it is necessary to consider the psychological laws of cognitive processes to enhance children's creative development (Novikova, 2019). According to Taylor (2021), gifted individuals are a necessary creative force for society's progress. In recent years, the literature in psychology and education has increasingly highlighted the importance of imagination in the mental development of children and the mechanisms that govern it (Rubenstein, 2022).

Several theories of imagination have been proposed over the years (1930-2022), each offering a unique perspective on the nature of imagination and its role in cognitive development. Based on the research of scholars such as Vygotsky, Davydova, Ignatiev, Rubinstein, Elkonin, and Krutetskiy spanning across the 20th century from 1930 up to 1970, imagination plays a critical role in the effectiveness of educational programs as a necessary condition for the creative transformation and assimilation of knowledge by children, as well as their self-development (Novikova, 2019).

Theories of imagination from Freud, Piaget, Berlyne, Gardner, Johnson-Laird, Kosslyn, Kaufman and Beghetto and other theorists offer unique perspectives on the nature and function of imagination relevant to Vygotsky. Freud's theory (1936/Gordon & Breckman, 2019) emphasises the role of imagination in fulfilling unconscious desires and forming personality, while Piaget's theory (1945/2022) highlights the importance of imaginative play in cognitive development. Berlyne's theory (1971/Beghetto & Jaeger, 2022) links imagination to curiosity and problem-solving, while Gardner's theory positions imagination as one of several types of intelligence. Johnson-Laird's theory (1983/Chart, 2017) emphasises the construction of mental models and their role in reasoning and problem-solving. A profound grasp of these theories is indispensable when exploring Vygotsky's theory of imagination (Vygotsky, 1962/2022), which emphasises the impact of social and cultural factors on imagination and highlights its role in facilitating advanced cognitive processes such as language acquisition and problem-solving.

Moreover, Vygotsky's historical and personal background is essential for understanding his ideas because his experiences and the historical context in which helived influenced his thinking and shaped the development of his theories. Vygotsky was a Russian psychologist and educator who lived during a time of significant social and political change in Russia, significantly impacting his work. His background in education and linguistics also played a crucial role in his thinking about cognitive development and the role of language in learning (Novikova, 2019). Vygotsky's work emphasised the importance of social interaction and the role of culture in cognitive development, which has been influential in shaping contemporary theories of social andcultural learning (Novikova, 2019). In particular, Vygotsky's concept of the Zone of Proximal Development (**ZPD**) (Vygotsky, 1966/2018), which refers to the range of tasks a learner can accomplish with or without guidance and support, has influenced contemporary educational practices. In this context, it is significant to emphasise that the Zone of Proximal Development (ZPD) is not confined to specific tasks but represents a broader

developmental principle that unfolds over time. The unique social space of the ZPD necessitates scaffolding, underlining the significance of social interaction and guidance in facilitating a learner's progression within this dynamic developmental framework. The idea that learning occurs through interaction and collaboration with others is also central to Vygotsky's work (Vygotsky, 1962/2022). It has been adopted by many educators as a pedagogical approach to teaching and learning. According to Vygotsky (1962/2022), imagination plays a key role in creating mental representations of the world, facilitating learning and problem-solving.

Vygotsky's background as a psychologist and educational theorist led him to explore the connections between imagination, language, and culture. He believed that imaginative play and make-believe scenarios allow children to explore and experiment with new ideas and concepts, promoting cognitive growth and development (Vygotsky, 1966/2004). Accordingly, Vygotsky's theory of imaginative development is particularly relevant for investigating the imagination of primary school students. This theory emphasises the importance of social interactions and cultural tools in developing imaginative processes. It also proposes a hierarchical framework for imaginative development, ranging from reproductive to crystallised imagination. It can provide a valuable framework for understanding the developmental trajectory of imaginative processes in primary school students.

## 1.6. Self-reflection

In the vein of the heuristic approach of Moustakas, who sees the creative process within the researcher as a crucial element of any study, I would like to offer moments of self-reflection as this thesis unfolds. Through my own teaching experience and interactions with children, it became apparent that conducting the same creative activities with children can yield vastly different results. To explore this further, I devised and implemented prototype tasks, which were conducted in the form of games or creative drawing and writing activities. These tasks were carried out with the consent of the children's parents. The children's psycho-emotional reactions and the results obtained while creating a picture or writing a story were used as fundamental stimuli for encouraging my theoretical exploration of Vygotsky's stages of imagination and the factors influencing their development.

## 1.7. Organisation of Thesis

This thesis is organised into eight chapters, providing a comprehensive investigation of the development of imagination in primary school students. Chapter 2 presents a literature review that delves into the general understanding of imagination, its definitions, age-related manifestations, and its role in forming a child's personality. Chapter 3 discusses ideas from researchers that relate specifically to Vygotsky's context, many of whom have incorporated and further developed his views on the role of imagination in cognitive development. Chapter 4 provides a detailed account of Vygotsky's theory of imagination and distils these ideas into an explication and synthesis of a four-stage model of imagination development. Chapter 5 outlines this study's methodology and research methods, including various techniques and approaches to understanding imaginative development in primary school children. Chapter 6 provides an overview of the 3 Adelaide schools which formed the study context. Chapter 7 presents an analysis and comparison of the data collected during the study, including comparisons between schools, student groups, teachers, and parents. In this chapter, the four-stage model (given in Chapter 4) will be tested for its effectiveness in categorising the two products from the two imaginative tasks assigned to the Year 5 students. Finally, Chapter 8 summarises the key findings, highlights the limitations of the study, and offers recommendations and methodological developments for teachers and parents.

## **CHAPTER 2: LITERATURE REVIEW**

#### 2.1. Introduction

The study of imagination and its development in psychology has proven to be a complex and challenging endeavour (Cosgrove, 2018). Firstly, imagination is anabstract and subjective concept that is difficult to define and measure. This means that researchers must rely on self-report measures, observation, or other indirect methods to study imagination, which can be unreliable and prone to bias. Secondly, imagination is a multifaceted construct that can take many forms, including mental imagery, creativity, and fantasy. These different aspects of imagination are often interrelated, making it challenging to study specific aspects in isolation. Finally, the development of imagination is influenced by a wide range of individual, cultural, and environmental factors, further complicating efforts to study its development across the lifespan. These challenges have made it difficult for researchers to reach a consensus on the nature and development of imagination. Nevertheless, its importance cannot be overstated, as imagination plays a crucial role in various aspects of human life, including creativity, problem-solving (Isaev & Slobodchikov, 2022), decision-making (Brown & Tateo, 2018), and personal and emotional well-being (Wang, 2020).

Childhood is a critical period for the development of imagination (Likhachev, 2022), where an essential aspect in the formation of imaginative abilities is the experiences by the child of the world and of people (Smidt, 2019). As children grow, they transition from relying on external sources to generating their own unique and innovative ideas (Brown & Tateo, 2018). The relationship between imagination and memory is intricate and multifaceted (Isaev & Slobodchikov, 2022). Tomasello (2018) noted that the ability to imagine specific scenarios, even in the context of recalling diagrams, has been observed to enhance memory retention, a phenomenon noted in practical experiences with adult learners. This interplay between imagination and memory underscores the complex yet influential nature of cognitive processes, a theme that will be further explored in subsequent sections of this chapter. The close connection between imagination and speech is also significant (Iljin, 2021), as incorporating divergent thinking activities into language lessons can improve primary school students' overall speech development and enhance their ability to communicate effectively (Brown & Tateo, 2018). Furthermore, the relationship between imagination and emotions is also crucial (Gest, 2019), as all mental impressions, including abstract

ones, are formed directly or indirectly from sensory experiences (Smidt, 2020). Imagination development also directly impacts primary school students' knowledge acquisition (Cobb, 2020). The ability to form mental images and visualise concepts is a crucial component of effective learning (Brown & Tateo, 2018), highlighting the importance of promoting and nurturing imagination in the classroom (Kodzapirova, 2022).

In summary, the development of imagination is a complex and challenging field of study (Cosgrove, 2018), yet its significance cannot be understated (Kosslyn, 2017). This chapter will provide a review of the literature to examine the challenges and progress in understanding the development of imagination (Brown & Tateo, 2018), with a focus on its importance in human creativity, problem-solving (Luthy et al., 2019), decision-making (Brown & Tateo, 2018), and personal and emotional well-being (Gest, 2019). Additionally, the chapter will particularly highlight the importance of promoting and nurturing imagination in primary school students (Kodzapirova, 2022), as this is the target group of our study. It is intended that this general review establishes the basis for a more focused discussion of research aligned with Vygotsky by researchers who have built upon his ideas of the imagination in Chapter 3. Chapter 4 will then conclude the literature discussion with a clear statement of Vygotsky's theory of the imagination, which will be distilled into a four-stage model.

#### 2.2. Understanding the Development of Imagination: Challenges and Progress

The study of the imagination has been a topic of interest for many researchers and scientists throughout history, particularly in the field of psychology. It is widely acknowledged that imagination plays a crucial role in human creativity, problemsolving and decision-making (Kosslyn, 2019). However, defining imagination and understanding its underlying mechanisms has proven difficult despite its importance.

The study of imagination encompasses various mental processes, from visual imagery to hypothetical thinking (Nemov, 2022). Likhachev (2022) mentioned that the

distinction between imagination and other cognitive processes, such as perception, memory and thinking, is often blurred. To complicate matters further, the boundaries of imagination are not readily defined, making it difficult to devise conclusive experimental studies. Despite these challenges, researchers have made significant progress in understanding many aspects of imagination.

Moustakas's research (1961/2017) has shown that the development of imagination is related to various cognitive, emotional, and social factors. Similarly, Kuo (1963/2018) has demonstrated that cognitive factors such as working memory, attention, and executive function play a crucial role in imagination development. Emotional factors, including the ability to regulate emotions, also play a role in imagination development (Gest et al.,2001/2019). Social factors, such as the quality of parent-child interactions, influence the development of imagination (Chen, 2020).

One of the critical theories of imagination development is the cognitive-developmental theory, which proposes that imagination develops in stages as children mature cognitively (Piaget, 1952/2017). This theory suggests that children's imagination develops as their cognitive abilities, such as memory, attention, and reasoning, develop. For example, young children's imagination is limited to concrete, sensory-based images, while older children and adults can imagine abstract, hypothetical concepts (Vygotsky, 1966/2018).

Another theory of imagination development is the social-cultural theory, which suggests that imagination is shaped by the social and cultural context in which children grow up (Bruner,1994/2017). This theory suggests that the way children imagine is influenced by the language, culture, and social interactions that they are exposed to. For instance, children from different cultures may have different ways of visualising ideas and concepts (Cole, 2011/2018).

A recent theory on imagination development is the neurocognitive theory, which proposes that imagination is supported by specific brain regions and neural processes (Buckner, 2006/2017). This theory advocates that the development of imagination is related to the maturation and plasticity of certain brain areas, such as the prefrontal cortex and the parietal cortex (Kosslyn, 2018).

Nemov's laws of creative imagination development provide a valuable framework for understanding the role of personal experiences and emotions in shaping our imagination (Nemov, 2022). However, other theories propose the development of imagination in alternate perspectives. One such theory is the cognitive-developmental theory of imagination, which states that imagination develops in stages as children's cognitive

abilities mature (Flavell, 1979/2017). According to this theory, children begin by using their imagination in a concrete and literal way. Still, as they grow older, they become more able to think abstractly and use their imagination more sophisticatedly. This theory argues that children learn to use their imagination through interactions with others, such as parents, teachers, and peers, who provide them with the language, concepts, and symbols necessary to form and understand mental images.

Moreover, studies have shown that imagination is related to creativity and problem-solving. For instance, Guilford (1950/2017) advances Vygotsky's notion that it has been found that people who score high on measures of imagination tend to score high on measures of creativity and that people who are good at imagining alternative scenarios are also good at solving problems. Vygotsky (1966/2022) theorised that the process of cognitive development is contingent upon the reciprocal interplay between individuals and their sociocultural context. According to Vygotsky, the development of imagination and other cognitive processes is mediated by cultural tools and social interactions, such as language, which provide a framework for mental functioning. This perspective emphasises the role of social and cultural factors in shaping cognitive processes, including imagination.

The relationship between imagination and creativity highlighted in the Guilford statement is consistent with Vygotsky's theory, which suggests that imagination is not only an individual quality but also a product of the cultural and social context in which it is developed. The concept of cultural tools and social interaction in Vygotsky's theory provides a framework for understanding how personal experiences, emotions, and social and cultural influences interact to shape imagination, creativity, and problemsolving skills (Vygotsky,1966/2022). Accordingly, Vygotsky's theory of imagination remains relevant to researchers' challenges in studying this topic. As stated, imagination involves a range of mental processes, and the distinction between imagination and other cognitive processes often needs to be clarified. Vygotsky's social-constructivist theory (Vygotsky, 1966/2022) proposes that imagination is shaped by social and cultural factors and that children learn to use their imagination through interactions with others who provide them with the language, concepts, and symbols necessary to form and understand mental images. This theory highlights the importance of considering the social and cultural context in which imagination develops. This is a key factor in understanding the complexities of mental processes. Additionally, Vygotsky's theory emphasises that imagination develops in stages as children mature cognitively, which is consistent with the cognitive-developmental theory of imagination discussed.

#### 2.3. Exploring the Enigmatic Nature of Imagination: Perspectives and Definitions

Imagination is generally defined as the ability to form mental images, concepts, and ideas that are not based on immediate sensory experience and are a crucial part of human cognition. It allows us to think creatively, solve problems, and understand the world around us (Smolucha, 2022). According to Vygotsky (1966/2022), imagination is not just a simple repetition of past experiences but the creation of new mental imagesby manipulating previous perceptions of understanding. The notion of imagination is a fundamental component of human cognition, allowing us to generate new and innovative ideas by building upon our existing knowledge. Through imagination, we can transform reality-based concepts into new, previously non-existent ones. It is through this process of transforming ideas that we can create something entirely unique and ground-breaking. Vygotsky's emphasis on the importance of imagination as a tool for human creativity and innovation is a powerful reminder of the limitless potential of the human mind (Smolucha, 2022).

Due to the complexity of the concept of imagination and its development, it has been a challenging topic to define in psychological literature clearly. Despite the numerous definitions that have been proposed, with Zavijalova et al. (2018) suggesting the existence of around 40 different definitions, the true essence and distinction of imagination from other cognitive processes remains a topic of debate even today with the arrival of virtual reality. Brushlinsky makes the intriguing observation that any definition of imagination is ultimately ambiguous as the phenomenon lacks clear boundaries (Mironenko, 2022). He posits that the traditional view of imagination as the ability to generate original images is too restrictive and must fully capture this mental process's complexity.

I appreciate Maklakov's definition of imagination as a process of transforming reality-based ideas to create new ones, which aligns with my personal understanding of the power of imagination. Maklakov (2018) provides a definition of imagination as "the process of transforming ideas that reflect reality and creating new ideas on this basis" (p. 284). Additionally, Kozubowski's idea that imagination can take different forms underscores the versatility of this mental process and its potential applications in various contexts. Kozubowski (2019) defines imagination as the mental process of creating an image of an object or phenomenon that does not exist in reality. He suggests that imagination can take different forms, such as the image of a desired outcome, a

representation of one's own behaviour in uncertain conditions, or a solution to a current unresolved problem.

Due to the interest in and recognition of imagination as a human talent, Western psychologists have delved into the study of imagination since the 1950s (Likhachev, 2022). I find it compelling that the importance of imagination, particularly in creative thinking and image construction, has been compared to wisdom and knowledge, as noted by Likhachev (2022).

Interestingly, Rubenstein's observation of the relationship between mental representation and transforming the world in practice supports the idea that imagination is a fundamental human capability that allows us to create and transform our surroundings (Rubenstein, 2022). According to Rubenstein (2022), a subject of action, a person not only contemplates and cognises but also changes the world, transforms nature, and creates objects that are not in it. However, a person could only do all this if their actions' results were clear. According to Potlasie (2018), the transformation of the world in practice is when one must be able to transform it mentally in representation. First, a person carefully acquaints themselves with the image of what needs to be done, builds their mental image, and then reproduces it when creating a similar item. Rubenstein (2022) supports this idea and adds that when a completely new thing is made, there is no such pattern as the new image is mentally created independently. Therefore, Rubenstein (2022) considers this ability to build new images as imagination. Fundamentally imagination is a powerful human faculty that enables us to create new thoughts, ideas, and objects that previously did not exist. Gippenreiter (2022) highlights how the imagination is the birthplace of new actions and objects that arise from our ability to envision something beyond what currently exists. This confirms that imagination plays a crucial role in human creativity, innovation, and problem-solving. The process of imagination is manifested in the creation by a person of something new - whether as thoughts or images - from which new actions or objects arise. This is the creation of something that did not exist previously (Gippenreiter, 2022).

Rubenstein (2022) emphasises that the images with which a person operates include not only previously perceived objects and phenomena but also events, facts, and phenomena that a person has not been and could not be a witness to. Images can contain upcoming, desired, and possible events and phenomena. At the same time, something new, created in the imagination, is always connected with an idea already existing in reality. Images are based on representations of memory, but they are subject to transformation in the imagination. I believe this highlights the immense potential of the

human mind to create new realities and possibilities that can be instrumental in shaping our lives and the world we live in.

According to Nemov (2022), imagination is the ability to represent an absent or non-existent object, keep it in mind and mentally manipulate it. Imagination is associated with all aspects of human life, including memory, perception, and thinking. Thus, the perception of works of art becomes more meaningful and emotional when imagination is involved in it. Nemov (2022) emphasises the role of imagination in mentally representing and manipulating an absent or non-existent object. I believe this suggests that imagination is not merely a passive process of envisioning new things but an active process of mentally manipulating them. This can lead to the creation of novel ideas, designs, and solutions that have the potential to transform our lives.

Isaev & Slobodchikov (2022) expressed that the connection between imagination and thinking appears vividly in a problematic situation. Faced with the unknown, a person begins to analyse, synthesise, and correlate the perceived with past experiences and tries to penetrate the essence of the relevant facts and phenomena. A holistic image is recreated not only by thinking and memory but also by imagination which fills in the missing elements. This idea is appealing, as it is only through imagination that a person can fill in the gaps and create a holistic image of the situation at hand. It is intriguing to note that imagination is a unique feature of the human psyche, allowing us to plan, create and manage our activities intelligently (Nemov, 2022). This is especially crucial in our modern world, where innovation and creativity are highly valued.

The Imagination is an exceptional faculty of the human psyche; it stands apart from other mental processes and, at the same time, occupies an intermediate position between perception, thinking, and memory (Riterman, 2022). Thanks to imagination, a person creates and intelligently plans their activities and manages them. Read (2022) considers that imagination takes a person beyond the limits of his momentary existence, reminds him of the past, and opens the future. In addition, Cosgrove (2018) admitted that a person with a rich imagination can live in different times, which no other living creature in the world can.

According to Pisarev (Rubenstein, 2022), a person completely deprived of the ability to dream and contemplate in whole and complete beauty the very creation is unable to undertake and complete extensive and tedious work in the fields of art, science, and practical life. A person's daily activities present a plethora of tasks and not always the necessary knowledge available to solve them. Imagination bridges this gap by

combining and creating new combinations of existing information. Intriguingly, imagination occupies an intermediate position between perception, thinking, and memory. This reinforces the view that imagination is not just about creating something entirely new but also about creatively combining and transforming existing ideas and information.

Leontiev (1975/2022) posits that the object of activity has two functions: as an independent entity that shapes and transforms the subject's activity and as an image of the object created through the subject's mental reflection of properties that can only be realised through action. The selection of specific properties in the subject necessary for solving a problem defines the partiality of the image, which is dependent on the subject's needs, motives, attitudes, and emotions. It is important to note that this partiality is objectively defined and is not reflected in the suitability of the image but rather in its ability to actively engage with reality (Leontiev, 1975/2022).

According to Trifonova and Vasukina (2019), Ilyenkov (1968) argued that the ability to understand the whole before the individual parts and to create a comprehensive understanding based on a single piece of information is the essence of imagination. The ability to produce new images by utilising different aspects of reality, rather than simply reworking existing concepts, is what makes imagination unique.

The imagination is a fundamental element of human creative activity, as it is expressed in the formation of images of a final product and enables the development of behaviour plans in situations characterised by uncertainty (Mironenko, 2022). In such cases, imagination allows individuals to bypass certain stages of thought and envision the final outcome.

The processes of imagination possess an analytic-synthetic character, as they involve the transformation of representations (images) and ultimately lead to the creation of a model of a new and previously unexperienced situation. Analysing the mechanism of imagination, Ilin (2021) emphasised that its core function is the process of transforming ideas and creating new images based on existing ones. Imagination and fantasy reflect reality in new, unexpected, and unusual combinations and connections.

According to Domash (2020), dissociating and integrating the first and second signal systems into new systems, under the influence of various motivations, constitute the neurophysiological basis of imagination. Recent research conducted by Domash (2020) has confirmed that the physiological mechanisms of imagination are not only located in the cortex but also in the deeper areas of the brain, such as the hypothalamic-

limbic system, which are related to emotions and the activity of subcortical brain formations.

Moreover, Rubenstein (2022) posits that perception serves as the foundation for the imagination, providing the material from which new creations are constructed. The process of imagination involves the analysis and synthesis of perceived materialthrough mechanisms such as agglutination, accentuation, hyperonisation, schematisation, typification, and reconstruction. Agglutination refers to merging individual elements or parts of multiple objects into a single, unusual image. Accentuation highlights and emphasises certain features of objects, resulting in a dominant aspect. Hyperonisation exaggerates or understates an object or its individual parts. Reconstruction involves creating a whole image from parts of an object. Schematisation smooths out differences between objects and emphasises similarities. Typification selects features of different objects to combine in one image. Emphasis onindividual features is also a key aspect of the imagination process (Rubenstein, 2022). Therefore, Domash (2020) and Rubenstein (2022) both suggested that the imagination is not a static process but rather a dynamic one, constantly evolving and adapting to new information and experiences. The ability to imagine is not only limited to the visualrealm but also encompasses other senses, such as sound, touch, and taste.

According to Bogoyavlenskaya (2022), human imagination is multifunctional, with its most important functions being gnostic-heuristic, protective, communicative, and predictive. The gnostic-heuristic function, which derives from the Greek terms "gnosis," meaning "knowledge," and "heuriskein," meaning "discover," allows the imagination to find and express the most essential and significant aspects of reality (Oxford Dictionary of English, 2010, pp.747- 823). The protective function allows individuals to regulate their emotional state, satisfying needs and reducing stress. The communicative function involves communication in the process of creating a product of the imagination or when evaluating the result. Lastly, the predictive function lies in the fact that the product of the imagination is the goal the subject strives for. Vygotsky (1966/2022) held the belief that imagination is not simply the repetition of previously accumulated impressions but rather the formation of new images through the manipulation of previous perceptions. He argued that the foundation of imagination is the introduction of something new into our impressions, leading to the creation of previously non-existent images.

This definition of Vygotsky, that imagination is the formation of new images by manipulating previous perceptions, particularly resonates with me. The idea that imagination involves the introduction of something new into our perceptions to create previously non-existent images aligns with my own experience of imagination. I agree with Vygotsky that imagination is a crucial part of human cognition, as it enables us to create something new and innovative by transforming our reality-based ideas. Vygotsky's definition of imagination offers a clear understanding of the process involved in creating new mental images, which is helpful in various academic fields, particularly in psychology and education. His theory emphasises the crucial role of imagination in the formation of a child's personality, allowing them to explore different perspectives, express themselves, and develop their sense of self. In the educational context, Vygotsky's theory suggests that imagination is closely linked to the process of learning and divergent thinking, allowing students to think creatively, and come up with new ideas and solutions to problems. Furthermore, Vygotsky's emphasis on the role of imagination in the creation of previously non-existent images connects with the idea that imagination is related to the development of emotional intelligence and empathy, as it allows individuals to connect with their emotions and experiences of others. It makes sense that imagination would be a key driver of learning and creativity and that it would be an important factor in the pursuit of new knowledge and understanding.

#### 2.4. Manifestation of the Imagination at Different Stages of Life

As a researcher, I have found that the development of imagination is intricately linked to the development of a child's personality and requires a certain accumulation of ideas. It is, therefore, crucial for parents and educators to play an active role in fostering the child's imagination, as it can have a significant impact on their overall development. Through the literature, I have observed that exposure to diverse experiences can also contribute to the growth of a child's imagination, making it a dynamic process that is not solely reliant on age.

This section explores the development of imagination in children and its manifestation across different age groups. The influence of people and the environment in shaping a child's experience is highlighted, which lays the foundation for the growth of the imagination. Discussion is made of the developmental differences in the manifestation of imagination across age groups, with pre-schoolers appearing to have a stronger imagination than young adolescent children at first glance. However, research suggests that children in primary school already have an imagination that is grounded in a significant amount of life experience and ever-growing knowledge. It

also discusses the importance of perception and stability of imaginative recreations in pre-schoolers and students in the early years of primary schooling. Additionally, the role of dominant stages of imagination and their impact on a person's unique psychological traits is explored. It is noted that the development of imagination is a dynamic process that is not solely related to the child's age but also to their experiences, exposure, and environment. Finally, this section highlights the vital role that parents and educators play in fostering a child's imagination.

Research made by Podlasie (2018), Mironenko (2022), and Nemov (2022) has shown that there are developmental differences in the manifestation of imagination across different age groups. Podlasie (2018) proposed that pre-schoolers appear to have a stronger imagination than older youngsters at first glance. However, Mironenko (2022) argued that children in primary school already have an imagination that is grounded in a significant amount of life experience and ever-growing knowledge. Nemov (2022) supported the idea that students' imagination grows in such a way that the images they conjure are increasingly tied to practice.

Kodzaspirova (2022) pointed out that the images of imagination that emerge in preschoolers and students in years 1 and 2 during their creative activities are still incredibly unstable and easily altered due to new, occasionally random associations. Thesepictures should be grounded in perception. Year 1 and 2 (5 and 6-year-old) students' imaginative recreations also differ in some ways. For example, the visuals from the readtext cannot be accurately reconstructed by Year 1 in a drawing or even in a spoken description (Bogoyavlenskaya, 2022). Children of this age often produce unstable, ever-changing imagery. It can be observed that older pre-schoolers and up to Year 1 students would typically draw new images different to those they have conjured previously with the first reading (Trifonova & Vasukina, 2019).

Although it improves greatly, as Bogoyavlenskaya (2022) found, Year 2 and, to a lesser extent, Year 3 imaginative recreations differ little from those of Year 1 students. Students in this Year level demographic are less easily distracted and have a greater number of impressions to draw from in their imaginative recreations. Mironenko (2022) considers that at the beginning of Year 3, the ability to imagine increases in importance. Children's imaginative paintings in the visual arts develop as a result of the active cognition of objects throughout the process of recreating paintings from their environment.

It is important to note that a person is not born with a developed imagination (Vygotsky, 1966/2022). The development of imagination is carried out throughout

human ontogenesis and requires the accumulation of a certain range of ideas, which can serve as material for creating images of the imagination (Likhachev, 2022). As has already been mentioned, imagination is a dynamic process, and it is not only related to the child's age but also to their experiences, exposure, and the environment in which they grow. For example, children who are exposed to more diverse experiences tend to develop a more robust imagination compared to those who are not exposed to varied experiences (Matthews, 2019). Additionally, the role of parents and educators in fostering the child's imagination can also play a crucial role in its development.

Individual differences may impact the nature of the dominant stage of imagination, as revealed by Stolyarenko (2019), with most individuals exhibiting imaginations that are dominated by visual, aural, or motor imagery. However, Bogoyavlenskaya (2022) has noted that some individuals have a high level of development in all or most areas of imagination. Being a member of one sort of imagination or another has a significant impact on a person's unique psychological traits. For instance, those with auditory or motor types frequently dramatise the scenario in their minds, seeing an imaginary adversary. So, imagination develops in close connection with the development of the whole personality in the process of training and education, as well as in unity with thinking, memory, will, and feelings.

Writing this section has taught me that the development of a child's imagination is a complex and dynamic process that is influenced by various factors such as age, experiences, exposure, and environment. Different age groups exhibit different stages of imagination, with pre-schoolers initially having stronger imaginations than older children, although this varies depending on the child's individual experiences and environment. In summary, a person is not born with a fully developed imagination, and its development occurs throughout their lifetime, requiring the accumulation of a range of ideas. The capacity for imagination becomes progressively significant during the developmental stage of children around three years old, as they acquire a heightened sense of perception and engage in active cognitive processes regarding objects. The role of parents and educators in fostering a child's imagination is critical for its development. It is essential to recognise that imagination is not only related to age but also to experiences and environment, emphasising the importance of exposure to diverse experiences.

#### 2.5 Imagination and the Formation of a Child's Personality

Imagination plays a key role in the formation of a child's personality. By allowing them to explore different perspectives, express themselves, and develop their sense of self, imagination plays a fundamental role in a child's development (Nemov, 2022). Features of primary school students' imagination include an active imagination, the ability to make connections between different concepts, and a sense of curiosity and exploration. The multifaceted nature of imagination development raises questions that elicit an emotional impact and pique the curiosity of the researcher. Understanding how imagination evolves in children during the transition from early childhood to primary school age becomes a compelling question that fuels the research process.

In this section, we explore the formation of imagination in children, including its connection to speech, play, and the use of substitute objects. We begin by discussing how imagination reflects reality but allows for a mental recreation beyond the immediately perceived stimuli. The section then delves into the emergence of cognitive and affective imagination in early childhood before discussing the formation of arbitrary imagination in the preschool period. The role of speech in the development of imagination is highlighted in this section by exploring how speech frees the child from direct impressions and helps them mentally transform objects according to their perceptions. It is also noted how imagination becomes increasingly separated from action and transferred to the speech plane. The importance of external support, such as toys and role attributes, is discussed, as well as the role of exaggeration in creating contrasts and the emotional colouring of children's imagination.

As we have suggested, the ability to create something new and unusual is laid down in childhood through the development of higher mental functions such as thinking and imagination (Rubenstein, 2022). According to Gipenreiter (2022), imagination is the highest mental function and reflects reality; however, with the help of imagination, a mental departure is carried out beyond the limits of the immediately perceived information. Its main task is to present the expected result before its implementation. With the help of imagination, we form an image of an object, situation, or condition that has never existed or does not exist at the moment.

This point of view can be seen in Vygotsky's theory (1966/2022), which proposed that the child's imagination develops gradually in the process of accumulating life experience, and all images of the activity of the imagination are based on the impressions of real life. Vygotsky (1966/2022) explained that a child's game is not just

a simple recall of the past; rather, it is a creative processing of the impressions of the past, fusing them to create a new reality that caters to the child's needs and inclinations. Moreover, Vygotsky (1966/2022) noted that a powerful step in the development of the imagination is made in connection with the assimilation of speech. Observations show that delays in speech development lead to the underdevelopment of the child's imagination. Speech frees the child from direct impressions and contributes to the formation and fixation of ideas about the subject; it is speech that makes it possible to imagine this or that object that he has not seen, to think about it, and mentally transform it. The child can express in words what does not coincide with their real perception; it is precisely this that enables them to circulate freely in the sphere of impressions created and expressed by words. Thus, the main means of imagination, as well as thinking, is to be found through speech. Imagination is not a primary function inherent in the child but the result of mental and, most importantly, speech development (Nemov, 2022).

With the development of the child, the imagination is increasingly separated from action and transferred to the speech plane. Iljin (2021) affirmed that until inner speech develops, the child needs a partner who mainly acts as a listener whilst the child describes the content of the game and pronounces lines, both of their own and of someone else's imaginative character. Repina (2018) points out that the purposefulness of the imagination in the child increases during the preschool years. This, in particular, finds expression in a sufficient increase in the duration and complexity of game playing, the stability of roles during play, and in more detailed preliminary planning of the course of play.

Moreover, Gippenreiter (2022) emphasises that external support plays an important role in the development of the child's imagination. At the earliest stages, during the period of its inception, the pre-schoolers imagination is closely tied to real actions with the game materials they perceive. The very process of a child's imagination in a role-playing game is informed by the nature of the toys and the presence of role attributes. Stolyarenko (2019) points out that the most significant similarity between

substitute objects and the objects they replace can be observed in the games of preschool children. As children grow older, their imagination becomes less dependent on material play and can find support in objects that are not similar to those being replaced. Repina (2018) found that older pre-schoolers, in particular, show a greater tendency to use natural materials such as cones, pebbles, leaves, and sticks in their play.

Among the most accessible methods, as Mironenko (2022) notes, for transforming reality for pre-schoolers is the displacement of values. The concept of

displacing values refers to the ability of pre-schoolers to temporarily shift or change their perception of what is considered valuable or important to an object readily at hand. This means that children can assign different meanings or significance to objects, actions, or ideas that they encounter in their environment. For example, a pre-schooler may assign a higher value to a simple cardboard box rather than an expensive toy, finding more joy and creativity in the box's versatility, for a mundane cardboard box may become a car in the child's imagination after drawing wheels along its sides. The displacement of values is just one of the cognitive tools that pre-schoolers readily employ to transform their reality and make sense of their experiences.

The process of value displacement can have a significant impact on a preschooler's perception of the world. By challenging and changing their understanding of what is valuable, children develop flexibility in their thinking and gain a broader perspective on the diverse aspects of their environment. This cognitive process enhances their creativity, problem-solving skills, and ability to adapt to different situations.

Children of pre-school age also commonly use exaggerations (hyperbolas) to create sharp contrasts that are easily accessible to primitive understanding. For example, in fairy tales created by pre-schoolers, the heroes are either a miracle of virtue and beauty or monsters and villains. Children create new images by attributing to objects qualities that are unusual for them and anthropomorphic, endowing them with the ability to transform into another object or state (Podlasie, 2018).

Vygotsky (1966/2022) believed that the "departure from reality" in children's fantasising is primarily due to the fact that the child does not yet understand the basic laws of objective reality and does not take them into account, thus easily violating them. Additionally, Bogoyavlenskaya (2022) highlights the high level of emotional colouring of images in children's imagination. The emotionality of children's imagination is particularly evident in creative games, as children tend to seek out roles that are attractive and emotionally saturated from their perspective. The importance of play in a child's mental development is largely due to the fact that the feelings experienced by a child during play are real. As a result, the apparent richness of children's imagination is, in fact as much a manifestation of the weakness of their critical thinking as it is the strength of their imagination.

The development of a child's imagination is further shaped by their living conditions and upbringing. It is affected by the accumulation of experience and the development of the ability to mentally combine images into new combinations (Nemov,

2022). As noted by Likhachev (2022), the development of imagination in older preschool-age children is characterised by a shift from a passive, recreative approach to a more active and purposeful one. As children accumulate more life experience and are exposed to various forms of language and communication, their imagination becomes increasingly arbitrary and detached from visual support. Instead, it relies on inner mental representations and the ability to create and plan new ideas (Rubenstein, 2022).

Ushakov (2022) highlights the importance of external factors, such as verbal communication and guidance from adults, in shaping the development of pre-schoolers imagination. As children become more proficient in language, they are able to conceptualise and plan their imaginative activities rather than simply reacting to stimuli in the environment. This gradual development of purposefulness and arbitrariness in imagination can be observed as children progress through different stages of early childhood development (Ushakov, 2022).

As Gippenreiter (2022) emphasises, the development of imagination is closely linked to the development of other cognitive and language abilities. For instance, the development of speech plays a crucial role in the formation of mental images and concepts that are not based on immediate sensory experience, which is a defining feature of imagination. Furthermore, the ability to think creatively, solve problems, and understand the world around us is closely connected to the development of imagination.

Moreover, Nemov (2022) supports the idea that imagination is closely linked to the development of the whole personality, including thinking, memory, will, and feelings. As children grow and develop, their imagination also evolves and changes, allowing them to explore different perspectives, express themselves, and develop their sense of self. This process is complex and ongoing, and it involves many challenges and progress, according to Nemov (2022).

As highlighted by Stolyarenko (2019), a crucial aspect of the development of imagination is the ability to distinguish between reality and imagination. This ability is important for the individual to be able to process and understand the world around them,

as well as to be able to effectively communicate with others. Furthermore, the development of imagination also contributes to the development of critical thinking skills, as the individual is able to evaluate and analyse different perspectives and ideas.

Moreover, imagination plays an important role in the formation of personality, as individuals are able to explore different possibilities, express themselves, and develop their sense of self (Nemov, 2022). The development of imagination is closely

linked to the process of learning and divergent thinking, as it allows individuals to think creatively and come up with new ideas and solutions to problems (Gippenreiter, 2022).

It is important to note that the development of imagination is not a one-time process but rather a continuous one that evolves throughout an individual's life. As individuals grow and gain new experiences, their imagination also evolves and changes. Therefore, it is essential to foster and support the development of imagination in individuals, as it is a fundamental aspect of mental development and overall well-being.

## 2.6. Features of Primary School Students' Imagination

The development of imagination in children is a multifaceted process that is influenced by various factors. As children transition from early childhood to primary school age, their imagination undergoes significant changes characterised by the activation of recreating imagination followed by the development of creative imagination. This section explores the features of imagination development in primary school-aged children, as this age range includes the context of our study, which is pitched at 12-year-olds. Characteristics include the role of external support, the importance of subjective and objective factors, and the crucial role of imagination in learning, problem-solving, decision-making, and social interactions. We also highlight the significance of providing children with opportunities to develop their imagination through various activities and experiences.

According to Vygotsky (2022), the development of imagination in children at the age of 6 or 7 years old is characterised by a shift from reliance on external support for the creation of images to the ability to represent actions in the mind without the need for real action. This transition represents a significant step in the development of imagination as it moves from being a passive, recreational process to a more active, purposeful one.

Research by Bogoyavlenskaya (2022) suggests that children at this age tend to prefer small, uninteresting toys, such as symbolic and homemade objects, over more naturalistic ones. This preference is thought to be driven by the desire for autonomy in the process of discovering and creating new games.

As children enter primary school, their imagination begins to take on new characteristics. Primary school students are characterised by the activation of recreating imagination, followed by the development of creative imagination (Trifonova & Vasukina, 2019). This development is featured by the increasing subordination of

imagination to conscious intentions, leading to more arbitrary use of the imagination. Contrary to popular belief, Nemov (2022) argues that imagination does not fade away with age but rather is based on the accumulation of ideas and impressions from real-life experiences. While the child's understanding of the world may seem unexpected and original, it is rooted in their own unique perspective and experiences.

Vygotsky (2022) also highlighted that imagination is not a fixed trait inherent in the child but rather a result of mental and speech development, which is greatly influenced by living conditions and upbringing. Thus, it is essential to provide children with opportunities to develop their imagination through various activities and experiences.

In children of primary school age, the imagination has its own characteristics. The younger school age is characterised by the activation of, at first, a recreating imagination and then a more distinctly creative one (Trifonova & Vasukina, 2019). The main line in its development lies in the subordination of the imagination to conscious intentions. Gippenreiter (2022) emphasises that external support plays an important role in the development of the child's imagination. However, as children's imagination develops, the need for external support gradually disappears, and imagination becomes a special mental process that can be performed without external action. Gippenreiter (2022) argues that the younger school age is particularly favourable for the development of creative imagination and fantasy. Children's games and conversations provide insight into the power of their imagination and, in many cases, reveal a riot of fantasy. The images of the imagination that children create are often mixed with reality and fantasy and can be experienced by children as quite real due to the emotional reality of the imagination.

According to Stolyarenko (2019), a productive imagination must possess certain characteristics in order for a child to easily transition into the school learning environment. These include the ability to reproduce the principles of the structure and development of things, the ability to see the whole before its parts, and the ability to create a holistic image of any object. The tendency to constantly strive for new goals and to go beyond current conditions is seen as the basis for learning motivation.

Mental experimentation and the ability to include an object in new contexts, as well as the ability to find a method or principle of action, are also crucial for the development of imagination (Ushakov, 2022). Mironenko (2022) suggests that the creativity of a child is determined by both subjective and objective factors. Subjective

factors include the development of anatomical and physiological features, while objective factors refer to the impact of the surrounding environment.

The most vivid and free manifestation of the imagination in younger students can be observed in games, drawing, writing stories and fairy tales. Children's creativity is diverse, with some children recreating reality while others create fantastic new images and situations (Bogoyavlenskaya, 2022). When writing stories, children may borrow plots and graphic images without necessarily being aware of them.

Furthermore, Trifonova and Vasukina (2019) highlighted that children often employ a deliberate combination of well-established narrative structures and the creation of new imagery, exaggerating certain characteristics and qualities of their characters. This imaginative process serves as an effective means for children to acquire knowledge and understand their surroundings, allowing them to transcend the limitations of their personal experiences and providing a crucial psychological foundation for the development of a creative perspective on the world.

Bogoyavlenskaya (2022) followed this view pointing out that it is important to note that children's imagination is not only limited to their creative expression in literature and art but also extends to other areas of their development, such as problem-solving, decision-making, and social interactions. Studies have shown that children who have a strong imagination tend to have better cognitive skills and are more likely to be successful in their academic and professional pursuits (Lillard, 2017). Furthermore, a rich imagination can also promote emotional well-being, allowing children to explore and process their feelings in a safe and constructive manner.

Vygotsky (1966/2022) believed that the development of imagination is closely related to language development and that the two are interdependent. He argued that children's imaginative play is a form of symbolic thinking and that through play, children develop their ability to use symbols and language to represent and communicate their ideas. Therefore, the imaginative activities described in this section, such as writing stories and creating new imagery, would be seen as crucial to children's cognitive and linguistic development. Additionally, Vygotsky (1966/2022) proposed the concept of the "zone of proximal development" (ZPD), which refers to the difference between what a child can do on their own and what they can achieve with guidance and support from more knowledgeable others. He suggested that children's imaginative activities often involve deliberate combinations of established structures and new ideas, which could be seen as a manifestation of the ZPD. Children's creative processes, therefore, provide opportunities for them to expand their knowledge and

skills through collaboration with others. Finally, Vygotsky's theory highlights the importance of imaginative play, creative expression, and social interactions in children's cognitive and linguistic development. These activities provide children with opportunities to construct knowledge, develop problem-solving skills, and expand their social and cultural experiences.

## 2.6.1 Imagination and Memory

The relationship between memory and imagination has long been a topic of interest in cognitive psychology, with scholars exploring the ways in which these two cognitive processes interact and influence one another.

In this section, we begin with the perspective of Vygotsky, who viewed memory and imagination as interdependent cognitive processes. Vygotsky's vision adds another layer of complexity to the relationship between memory and imagination, emphasising the dynamic and mutually reinforcing nature of these cognitive processes. Through his and other authors' perspectives, a deeper understanding is offered of the role of memory in the development of imagination and the creative use of memory in generating new and innovative ideas. By exploring how memory influences imaginative processes and how the creative use of memory generates new ideas, researchers have established a more profound and personal understanding of relevant cognitive interactions. Studying the intricacies involved in the interplay between memory and imagination provides insights that may not be fully captured through a purely objective analysis. Through personal engagement and emotional connection, it is hoped a richer perspective on how memory shapes imaginative capabilities and how we can harness this relationship to foster creativity and innovation may be gained.

Rubenstein (2022) posits that the images of memory serve as the foundation for the formation of the images of imagination. The information stored in our memories serves as a solid foundation for the imagination to build upon. However, it is important to note that while the imagination may draw upon memories, it is not simply a reproduction of them. Instead, it is considered a unique activity that is distinct from memory. Likhachev (2022) also endorses the idea that the imagination's uniqueness originates from the processing of the past, noting that the imagination alters everything within it, making it intrinsically tied to the memory process.

The relationship between memory and imagination is complex and multifaceted. While memory serves as the foundation for imagination, the imagination

also draws upon and alters memories. The distinction between memory and imagination is not found in the actual activity but rather in the circumstances that give rise to it. Therefore, it is important to consider the interplay between memory and imagination in understanding their roles in cognitive processes.

Vygotsky's perspective on the connection between imagination and memory adds another layer of complexity to this relationship. He viewed memory and imagination as interconnected cognitive processes, with memory serving as the foundation for the development of imagination (Vygotsky, 1966/2022). According to Vygotsky, memory is not simply a passive reproduction of past experiences but an active process of reconstruction and reinterpretation of these experiences, which can then be used to create new images and ideas through the imagination.

Moreover, Vygotsky's vision highlights the dynamic nature of memory and imagination and emphasises the importance of the creative use of memory in the development of imagination. He believed that imagination and memory are mutually reinforcing processes and that the development of one is dependent on the other. By drawing on memories and reconstructing them in new ways, individuals can develop their imagination and create new and innovative ideas (Vygotsky, 1966/2022).

Finally, Vygotsky's perspective on the connection between imagination and memory emphasises the dynamic and interdependent nature of these cognitive processes. Memory serves as the foundation for the development of imagination, and the creative use of memory is essential for the development of innovative and creative ideas.

## 2.6.2 Imagination and Thinking

Imagination and thinking are crucial cognitive processes that are central to human development and behaviour. Imagination involves the capacity to mentally alter sensory memories, creating new images and representations of ideas that can serve as goal for operations and rational, productive action. On the other hand, thinking is a process that is founded on a system of concepts intended to solve problems whilst taking into account the environment. The intimate relationship between imagination and thinking is demonstrated by the imagination's capacity to anticipate and predict theoccurrence of specific events in the future. Furthermore, the ability to imagine and thinkcreatively is important not only for problem-solving, decision-making, and productivitybut also for personal and emotional well-being. This skill can be developed and nurtured through various means, such as education, exposure to different cultures, and

training programs. In this section, we will continue our exploration of the role of imagination and thinking in human behaviour and development.

As stated by Stolyarenko (2022), individuals possess the ability to mentally disassemble, alter the proportions of, move in space, paint in different colours, and substitute pieces with others using the representations of images that are stored in memory. Imagination is the capacity to mentally alter sensory memories, and through its use, individuals can create representations of their ideas that allow them to visualise the end product as an object or circumstance (Isaev & Slobodchikov, 2022). This image serves as the goal for operations, and the outcome is compared to it, setting human rational, productive action apart from animal rational activity.

Moreover, Ushakov (2022) asserts that thinking may be utilised to evaluate the newly generated images, and based on this analysis, necessary adjustments can be made through proper verification. Rubenstein (2022) posits that the foundation of human creativity is an active, constructive imagination, and the practical implication of this is that the success of any human activity is correlated with how well-defined the concept is developed with the aid of imagination about the activity's intended outcome.

Also, Riterman (2022) argues that thinking is an activity that is founded on a system of concepts and is intended to solve problems that are subordinate to the goal while taking into account the environment in which the action is being carried out. The activity should be successfully completed in order to compare progress to the anticipated outcome, implement the plan of operations, and continuously maintain the target (Nemov, 2022). In Vygotsky's (1966/2022) view of thinking as a process based on conditioned reflex activity developed through personal experience, the intimate relationship between imagination and thinking is demonstrated by the imagination's capacity to anticipate and predict the occurrence of specific events in the future. Furthermore, it is essential to note that the ability to imagine and think creatively is important not only for problem-solving, decision-making and productivity but also for personal and emotional well-being. The use of imagination allows individuals to explore and process their emotions in a safe and constructive manner and to develop a greater understanding of themselves and the world around them.

It is important to recognise that imagination and thinking are not innate abilities but rather skills that can be developed and nurtured through various means, such as education, exposure to different cultures and experiences, and training programs designed to enhance creativity and innovation. Therefore, it is crucial to provide opportunities for individuals to develop and utilise their imagination and thinking skills in order to promote their overall well-being and success.

Imagination and thinking are closely related cognitive processes that play a vital role in human development and behaviour. Imagination allows individuals to mentally alter sensory memories, creating new images and representations of ideas and sets human rational, productive action apart from animal rational activity. Thinking is a process that is founded on a system of concepts intended to solve problems and take into account the environment. The ability to imagine and think creatively is not only important for problem-solving, decision-making, and productivity but also for personal and emotional well-being. These skills can be developed and nurtured through various means, such as education, exposure to different cultures, and training programs. It is fascinating to consider the relationship between imagination and thinking and how the two processes work together to create representations of ideas and solve problems. I have included a range of authors in this section to provide rich insight into this topic and to emphasise the significance of imagination and thinking skills for personal and emotional well-being, as well as productivity. I also tried to highlight the importance of nurturing imagination and thinking skills through education, exposure to different cultures and experiences, and training programs. As a researcher, this reinforces the importance of continuing to study and develop programs and interventions that promote creativity and innovation and help individuals to enhance their imagination and thinking skills.

## 2.6.3. Imagination and Speech

It is crucial to provide students with the skills to communicate effectively and express their ideas, which will benefit them in their academic and personal lives. This section highlights the significance of incorporating divergent thinking activities into language lessons to enhance speech development.

The development of speech is a critical aspect of primary school students' education as it allows them to communicate effectively and express their ideas. Native language lessons play a fundamental role in developing speech by teaching the sound-rhythmic, intonation, grammatical structure, and vocabulary of the language (Iljin, 2021). Additionally, the ability to engage in divergent thinking, or generate multiple ideas and solutions, is important in enhancing speech development. This allows students to think creatively and come up with unique ways to express themselves in

both oral and written communication. This part explores the relationship between speech development, imagination, and divergent thinking and how incorporating divergent thinking into classroom activities can foster students' overall speech development.

According to Nikitenko (2022), one of the most significant mental functions for primary school students is speech, which is developed through native language lessons that focus on mastering the language's sound-rhythmic, intonation, grammatical structure, and vocabulary. This includes expanding one's vocabulary and understanding one's own speech processes. Bakulina et al. (2022) also noted that the ability to communicate is a primary task of speech. The degree of arbitrariness, intricacy, and planning in the speech of younger students varies, but their claims are generally straightforward. The formation of written speech is also a feature of speech development at the primary school age, although it is often inferior to oral speech in terms of being more monotonous but also more detailed (Obuhov et al., 2022).

Furthermore, Luthy et al. (2019) emphasise that images from the imagination can become active forces that drive behaviour and action. Consequently, the building of a person's motivational-need area is especially important in conjunction with the establishment of imagination, and divergent thinking plays an important role in this process. Divergent thinking, as described by Guilford (1968/2019), is the ability to generate multiple ideas and solutions. This is crucial for speech development as it allows students to think creatively and come up with unique ways to express themselves and communicate their ideas. Divergent thinking also helps students to think critically and analyse information, which are essential skills for mastering grammar and vocabulary. Moreover, divergent thinking is also related to the development of written speech as it allows students to think creatively and come up with unique ways to express themselves in writing. Therefore, incorporating divergent thinking activities into language lessons can enhance students' overall speech development and improve their ability to communicate effectively.

Vygotsky (1966/2022) believed that imagination and speech are intimately connected and that they mutually influence each other. He argued that language and thought are interdependent, and that language serves as a tool for thought. According to Vygotsky (1978/2022), children's imaginative play helps them to develop their language and communication skills as they engage in verbal and non-verbal communication with their peers during play. In addition, Vygotsky (1966/2022) considered that language is essential for the development of higher mental processes,

such as problem-solving and critical thinking, and that imaginative play can foster the development of these processes. He also believed that language is important for social interaction and that children learn how to use language to communicate with others by participating in social interactions. Therefore, Vygotsky's views on the connection between imagination and speech emphasise the importance of using language and imaginative play to foster the development of children's communication skills, problem-solving abilities, social interaction skills and divergent thinking.

## 2.6.4. Imagination and Process of Primary School Students' Learning

I've noticed that imagination is closely linked to the process of primary school students' learning and divergent thinking. It allows students to think creatively and come up with new ideas and solutions to problems. The role of imagination in the learning and cognitive development of primary school students has been widely studied by researchers. Imagination allows students to think creatively, generate new ideas and come up with innovative solutions to problems. In this section, we discuss the interplay between the imagination and the processes of learning for primary school-aged children.

According to Bogoyavlenskaya (2022), a defining feature of the imagination of young students is the dependence on certain stimuli, without which they are unable to form mental images. Obuhov et al. (2022) found that when reading and storytelling, younger learners tend to focus on visual imagery, without which they struggle to

visualise and imitate the described scenario. Nikitenko (2022) posits that at the beginning of primary school age, the imagination is primarily focused on specific objects, but as the child matures, the role of language becomes increasingly prominent.

The ability to self-regulate and control one's mental activity generally improves as a result of the learning process (Riterman, 2022), resulting in a more manageable and controlled imagination, with images appearing within the context of educational tasks pertaining to a particular topic. Educational activities play an important role in fostering the development of creative imagination (Nikitenko, 2022). Gippenreiter (2022) found that younger children are exposed to a lot of descriptive information during educational activities, which prompts them to construct new imagescontinuously. These images are essential for understanding and assimilating instructional material. As Cosgrove (2018) notes, it is important to view imagination as

a complex mental activity that involves the integration of several processes in specific interactions.

According to Vygotsky, imagination is a tool for thinking and learning, and it allows children to make connections between new information and their existing knowledge and experiences. In other words, imagination helps children to construct mental images and create new ideas based on what they already know (Vygotsky, 1978/2022). This idea is important in the context of primary education, where students are constantly building on their prior knowledge and experiences to learn new concepts and ideas. Additionally, Vygotsky's emphasis on the social context of learning is also relevant, as it highlights the role of teachers and peers in providing students with the scaffolding and support, they need to develop their imagination and creative thinking abilities (Vygotsky, 1978/2022).

## 2.6.5. Imagination and Feelings

The relationship between imagination and feeling is a fascinating area of research that has gained much attention in recent years. It has been suggested that imagination plays a crucial role in our ability to connect with the emotions and experiences of others, as well as in the development of emotional regulation. In this section, we will explore the complex relationship between imagination and feeling, drawing on research in neuroscience and psychology to gain a deeper understanding of how the brain processes imaginative images and how imagination can be harnessed for emotional regulation. There is substantial evidence that all mental impressions, even abstract ones, utilise sensations and memories. Through imagination, sensations are transformed into mental representations, which are influenced by semantic context. However, the functioning of imagination is distinct from the senses, which serve as a source of information for the creation of imaginative images.

Imagination and feeling are closely related, as are all mental impressions, including abstract ones, that are formed directly or indirectly from sensations (Cosgrove, 2006/2018). Imagination incorporates sensations when forming mental representations, but it also draws on the semantic context, which includes feeling evaluations. As a result, imagination is substantially more than a reconstruction of mere sensory information (Cosgrove, 2006/2018).

This relationship between imagination and feeling is further supported by research in the field of neuroscience. Studies have shown that the neural mechanisms involved in imagination and emotive perception overlap to a significant degree (Kosslyn et al., 2019). This overlap suggests that the brain processes imagined and emotional leaden images in a similar manner, which may explain why imagination is able to elicit feeling responses similar to those evoked by actual experiences (Kosslyn et al., 2019). This speaks to the subjective reaction when viewing works of art. Indeed, it has been suggested that imagination may play a crucial role in the development of emotional regulation (Singer, 2018). By allowing individuals to mentally simulate different scenarios and outcomes, imagination enables them to practice coping with and regulating their emotional responses. This is particularly important for children who are still developing their emotional regulation skills (Singer & Lamm, 2009).

# 2.6.6. Imagination, Perception, and Apperception

Perception and mental imagery both originate in the brain, and perception replicates the object's integrity, including its shape, size, volume, and spatial and temporal boundaries, thus revealing the semantic characteristics of objectivity. The imagination function is most active during the preschool and primary school years and is closely related to the earliest images in imagination, which are essential for the development of creative imagination. The development of children's imagination during the preschool and primary school years is critical to their cognitive, social, and emotional development. Vygotsky's views on mental processes highlight theimportance of perception and mental imagery, which originate in the brain and affect how children experience and interact with the world. A child's imagination and creativity help in cognitive processes such as attention, memory, thinking, and problem-solving. The aim of this section is to explore the significance of imagination in children's development, the relationship between imagination and perception, and the factors that affect the development of children's imagination. We also discuss the role of the teacher and the environment in fostering imagination in primary school studentsshowing an overview of other authors' views as to the importance of fostering environments where children can express their imagination freely and the need to develop imagination intentionally in primary education.

According to Vygotsky's framework, in addition to perception and mental imagery, there is a concept called "apperception" that plays an important role in understanding the relationship between children's play activities and perceptual processes (Tateo, 2020). Apperception refers to the process of actively incorporating

new experiences and concepts into existing cognitive structures, allowing individuals to make sense of their perceptions and construct meaningful mental representations. In the context of imagination, apperception suggests that children's early play experiences contribute to the development of their imaginative abilities. Through play, children engage with their environment, interact with objects, and incorporate new concepts into their imaginative play scenarios. As Riterman (2022) highlights, the active process of learning and applying various concepts during the school years further enhances the development of imagination.

Vygotsky's view on imagination encompasses the interplay between perception, mental imagery, and apperception. It acknowledges that the richness and stability of imaginative experiences are influenced by children's interactions with the physical world, their understanding of concepts, and their ability to integrate new information into their imaginative play. This perspective emphasises the dynamic nature of imagination and its close ties to cognitive processes and perceptual experiences.

The imagination function is most active during the preschool and primary school years. Riterman (2022) established that other mental functions, such as memory, thinking, attention, and perception, that support learning activities are closely related to imagination. Nikitenko (2022) argues that primary teachers undermine the quality of instruction by not giving adequate attention to the development of imagination.

Observations made by Iljin (2021) show that children strive to depict familiar events truthfully as they occur in life. In many cases, the change, in reality, is caused by ignorance or the inability to coherently and consistently portray the events of life. Obuhov et al. (2022) noted that primary school students also make a strict selection of material suitable for play, which is carried out according to the principle of maximum closeness, from the child's perspective, of this material to real objects, according to the principle of the possibility of performing real actions with it. Podlasyi (2018) noted that the corrections to the situation and images made during the game by children of primary school age give the game and the images themselves imaginary features that bring them closer and closer to reality.

Nikitenko (2022) observed that 9-10-year-old children already understand the conventionality of fantasising and its inconsistency with reality. Precise knowledge and fascinating fantastic images built on their basis coexist peacefully in the mind of a primary school student. However, it is important to distinguish the realism of a child's imagination, particularly that of a younger schoolchild, from its other features, which may be closely related but fundamentally different. The elements of reproduction in the

imagination of primary school students decrease, and more creative processing of ideas emerges.

According to Vygotsky (1966/2022), imagination encompasses more than just the absence of reality or fiction. He emphasised that imagination plays a vital role in cognitive development and is an essential aspect of children's mental life. Vygotsky believed that children's imagination is not limited to what is simply "not real" but involves the capacity to create and explore new possibilities, engage in pretend play, and do symbolic thinking. He recognised children's imagination is vibrant and active, enabling them to generate novel ideas, experiment with different scenarios, and construct meaning through imaginative play. While children may exhibit a greater propensity for imaginative thinking compared to adults, Vygotsky viewed imagination as a dynamic cognitive process that evolves and transforms as individuals progress in their development.

However, Vygotsky (1966/2022) also acknowledged that children of preschool and primary school age tend to value the products of their imagination more and have less regulation over them. He noted that while the foundation upon which imagination is built is weaker in children compared to adults, their imaginative combinations may be of lesser quality and diversity. Similar to adults, children's imagination is tied to the actuality of the constituent parts from which it is constructed. Vygotsky (1966/2022) recognised that children's imagination is still developing and evolving, and as they grow, they gain a better understanding of the relationship between their imagination and reality.

Stolyarenko (2019) noted that at primary school age, a child can already create a variety of situations in their imagination. This formation of substitutions in the game leads to the imagination's transition into other types of activity. In the process of educational activity for school students, which starts with living contemplation in the primary years, the level of development of cognitive processes plays an important role, as Luthy et al. (2018) noted: attention, memory, perception, observation, imagination, memory, and thinking. The development and improvement of imagination will be more effective with purposeful work in this direction, which will entail the expansion of the cognitive capabilities of children. Bogoyavlenskaya (2022) emphasised that primary school students are fond of doing art as it allows them to reveal their personality in the most complete free form. All artistic activity is based on active imagination and creative thinking. These functions provide the child with a new, unusual view of the world.

Thus, the importance of imagination in the life and work of a primary school student is significant, as no school subject can be fully assimilated without the activity of the imagination and primary school students carry out most of their vigorous activity with the help of imagination.

Furthermore, it is important to note that the development of imagination is not a one-time event but rather a continuous process that evolves throughout a person's life. As children grow and mature, their imagination becomes more sophisticated and complex, allowing them to think abstractly and creatively and to generate new ideas and solutions (Vygotsky, 1966/2022). Vygotsky highlighted the developmental aspect of imagination, pointing out that it evolves and becomes more sophisticated as a person grows and matures. As a child, imagination is less regulated, and the foundation upon which it is built is weaker compared to adults. However, the nature of the combinations tied to this foundation, their quality and diversity, are noticeably inferior to those of adults.

This developmental perspective is important to consider when exploring the relationship between imagination and perception. As a person's imagination becomes more complex, their ability to perceive and engage with reality in new and creative ways also expands. Vygotsky's views support the idea that the image created through the subject's mental reflection can shape and transform the subject's activity. In this way, imagination can be a powerful tool for problem-solving, as it allows for the creation of new and innovative solutions that may not have been possible through more conventional means.

Reading about the connection between imagination and perception has allowed me to reflect on how these cognitive processes influence my life. It made me think about how my imagination has evolved over time and how it continues to shape my perception of the world. As a child, I remember having a very active imagination, constantly engaged in pretend play and creating new worlds in my mind. Vygotsky's perspective aligns with my own experiences, as he highlighted the importance of imagination in cognitive development and its role in generating new ideas and possibilities. However, as I grew older, I began to regulate my imaginative products more and may have undervalued their significance.

Nonetheless, I have recognised that imagination remains an essential tool in my life. It enables me to think abstractly, allowing me to approach problems from different angles and generate innovative solutions. Imagination empowers me to explore new possibilities, embrace creativity, and find inspiration in the world around me. While my

relationship with imagination may have evolved over time, I now appreciate itsenduring value and the role it plays in shaping my thoughts, actions, and perceptions.

# 2.7. Chapter Summary

This chapter focused on the challenges and progress in understanding the development of imagination in psychology, emphasising its importance in human creativity, problem-solving and decision-making. It is acknowledged that defining imagination and understanding its underlying mechanisms has proven difficult. The environment and people shape a child's experience and form the foundation for the growth of imagination. The ability to create something new and unusual is laid down in childhood through the development of higher mental functions such as thinking and imagination. The development of imagination in primary school students is characterised by a shift from reliance on external support to greater independent functioning. The relationship between imagination and memory is complex and multifaceted, and the relationship between imagination and thinking is important for problem-solving, decision-making, productivity, and personal and emotional well-being. Additionally, the chapter discussed the close relationship between imagination and speech. Incorporating divergent thinking activities into language lessons can enhance primary school students' overall speech development and improve their ability to communicate effectively. The relationship between imagination and feeling was also touched upon, and we noted that all mental impressions, including abstract ones, were formed directly or indirectly from sensations. And finally, the relationship between imagination and the process of primary school students' learning was given, noting that the ability to form mental images is dependent on certain stimuli.

# CHAPTER 3: VYGOTSKY`S CONTEXT

#### 3.1. Introduction

This chapter provides a careful consideration of theorists closely aligned with Vygotsky's conceptualisation of the imagination within the context of child development. Where the previous chapter provided a broad frame for Vygotsky's writings on the imagination within historical and more recent viewpoints, in this chapter, a detailed articulation of conceptualisations closely related to Vygtosky's views of the development and characteristics of the imagination is given. Discussion of these related theories on the imagination is explored to provide further contextualisation helpful to illuminate aspects of Vygotsky's concepts. It is from this chapter that a summary description of Vygotsky's concept of the imagination is given, and a model of the four stages of the imagination is extracted. This model will be given in Chapter 4.

#### 3.2 Self-reflection

As a researcher examining various theories of child development and imagination, I have found myself constantly in awe of the complexity and multifaceted nature of this subject. From Vygotsky's emphasis on the importance of the child's social and cultural environment to Kant's perspective on the role of experience and pre-experimental imagination, to Sartre's belief in the imagination as a necessary condition for the existence of the human mind, to Jung's view of the imagination as rooted in the collective unconscious, I have encountered a wealth of differing and thought-provoking perspectives on this topic. I can see how each of these theories has helped to shape and deepen my understanding of the child's imagination and its development. Vygotsky's concepts, for instance, have broadened my understanding of the critical significance of the child's surroundings in this progression, illustrating its dynamic and constantly evolving nature. Moreover, I have discovered the formation of Vygotsky's theory of imagination through the lens of other researchers.

## 3.3. Views on the Role of Imagination in the Development of Cognition

Vygotsky's theory of imagination is related to the perspectives of various scholars who view the role of imagination in cognitive and overall mental development in children. Vygotsky's theory posits that imagination and play have a fundamental role in a child's mental development, and these are connected to a child's cognitive growth. Ribot's perspective (1973/2022), which emphasises the initial connection of a child's imagination with the comprehension of reality and consciousness as the primary source of imagination, is well aligned with Vygotsky's theory. Like Vygotsky, Ribot (1973/2022) also directly links creative abilities with a child's experiences. Likewise, Iljin's (2021) perspective, which highlights the power of imagination over a child's soul and its manifestation in children's games, also supports Vygotsky's approach. Dewey's (1930/2020) ambivalent position regarding imagination, which emphasises the danger of children's fantasies for mental development, supports Vygotsky's view in the sense that imaginative play needs to be directed towards the real world to be beneficial for a child's cognitive growth. Overall, these scholars' perspectives on imagination and its role in a child's development are consistent with Vygotsky's theory of imagination.

Building on the connections between Vygotsky's theory of imagination and the perspectives of various scholars shows common ground in understanding the diverse conceptualisations of imagination's role in cognitive and mental development in children, the patterns of its formation in ontogenesis and the relationship between a child's imagination and their ability to comprehend reality.

To illustrate this point, Riterman (2022) considered that two key issues emerge that are addressed in almost all conceptualisations: the relationship between the development of a child's imagination and the possibilities of comprehending reality and the nature of this process itself. However, this is not to suggest there is consensus across the field. Some psychologists have denied imagination an independent and positive role in cognitive development. Paradoxically, despite emphasising the great significance of imagination in a child's life, they view imagination as a transient stage in development, as a form of imperfection in the cognitive sphere. These contrasting perspectives can provide valuable counterpoints that can strengthen the arguments in favour of Vygotsky's theory. By understanding the reasons behind these opposing viewpoints, proponents of Vygotsky's theory can address potential criticisms and clarify misconceptions.

For instance, the argument that imagination is a transient stage in development and a form of imperfection in the cognitive sphere can be used to highlight the importance of understanding how imagination evolves over time and how it interacts with other cognitive processes (Ribot, 2022). This can lead to a more nuanced understanding of the role of imagination in a child's development and contribute to a richer discussion around Vygotsky's theory. These opposing views can stimulatefurther research into the benefits and potential drawbacks of imagination in cognitive development. This can ultimately lead to more effective educational strategies and interventions that take into account the complexities of imagination and its role in children's cognitive growth.

Although these opposing perspectives may not directly support Vygotsky's theory, they contribute to a more comprehensive understanding of the diverse perspectives on the role of imagination in a child's development, ultimately enriching the discussion and enabling a deeper appreciation of the intricacies of the subject.

More closely aligned to Vygotsky, Luthy et al. (2018) highlighted the lack of connection between fantasising and the main trajectory of cognitive development and emphasised that imagination goes beyond reality. They proposed that the first stage of the development of imagination is between 2 to 4 years old when imaginary interpretations of reality dominate a child's life. From 4 to 6 years old is the age of fairy tales and exercises in fantasising (Luthy et al., 2018). According to Bakulina et al. (2022), a child spends almost their entire preschool years in a fantasy world, and Nikitenko (2022) referred to a child's mental life as a realm of dreams.

Iljin (2021) posits that imagination originates from reality, but he particularly noted the power of imagination over a child's soul, the vividness of its images that captivate and guide a child. He stated that imagination always starts from reality and is manifested in children's games, where complete enjoyment of realisation depends on the accuracy of reproduction and the relationship between a child's mental representation and its external expression, which aligns with Vygotsky's perspective that imaginative play is connected to a child's cognitive growth. However, the mental representations of children themselves are actually symbols of sociality that define and express the inner life of a child's soul (Iljin, 2021). A contrasting perspective presented by Ribot (1973/2022), emphasised the initial connection of a child's imagination with the comprehension of reality and identified consciousness as the primary source of imagination. By analysing the products of children's creativity (fairy tales, stories composed by children), he identified the main stages in the development of a child's

imagination. Ribot (1973/2022) believed that during the preschool period (from 2 to 6-7 years), a child goes through four main stages in the development of imagination. In the first stage, the child becomes capable of transforming perceptions. In the second stage, imagination manifests itself in the animation of toys. The third stage refers to reincarnation in games. Finally, at the fourth stage, artistic creativity properly begins, the essence of which lies in the recombination of images. Ribot (2020) also directly linked creative abilities with a child's experiences, a notion that corresponds closely with Vygotsky's theory, focusing on the importance of the principle that "the desire for creativity is always inversely proportional to the simplicity of the environment" (Vygotsky, 1966/2022, p. 26). Ribot (1973/2022) believed that the preschool period is the age of the most rapid development of the imagination, which is not richer in a child than in an adult, but only surpasses the development of thinking in terms of pace. Scientists provided a curve of the comparative rate of development of thinking and imagination, from which it can be inferred that the process of development of imagination in the pre-adult period is rapid and associated with the rapid acquisition of experience at the early stages of development.

While Dewey (1930/2020) recognised the importance of imagination in interacting with reality, he also warned against the danger of children's fantasies for mental development. He placed importance on gradually transferring the state of play into the state of work and directing a child's imagination towards the real world. Furthermore, Dewey's (1930/2020) ambivalent position regarding imagination underscores the importance of directing imaginative play towards the real world for it to be beneficial to a child's cognitive growth, which is consistent with Vygotsky's view. He emphasised the danger of children's fantasies for mental development, pointing out that play only provides an illusory satisfaction of a child's needs and distracts from reality. It is necessary to gradually transfer the state of play into the state of work and to direct a child's imagination towards the real world. According to Dewey (1930/2020), healthy imagination is an exercise in interacting with reality, but this exercise is based on certain instincts, particularly the artistic expression instinct, which is consistent with Vygotsky's view. The teacher might proceed from the aspirations and experiences of the child and help to consolidate habits that are useful for creativity. However, this concept helps to understand the absence of creative responses, rather than their occurrence. It is not clear how children find creative answers on their own, which, once again, go beyond the framework of any learned patterns of behaviour. An attempt to explain the selection of the necessary samples by some artistic instincts returns the

understanding of imagination to purely internally determined and essentially unknowable processes. A similar duality in understanding the nature of a child's imagination was clearly present in the studies of Gestalt psychologists see, for example, Wagoner et al. (2017). The Gestaltists see an active nature in creative processes, contrasting it with the passive, pictorial nature of imagination.

The active nature of creative processes and the importance of resolving everyday situations by children in developing their ability to visualise aligns well with Vygotsky's theory of imagination. In Vygotsky's perspective, the development of an imaginary circumstance changes the child's entire behaviour, forcing them to base their actions and deeds on hypothetical, possible, and non-visible situations. Gestalt psychologists propose that the main line of development of creative processes is the formation of the ability to visualise. They analyse this ability based on children's resolution of everyday situations, social problems, and manifestations of artistic creativity (Wagoner et al., 2017). The innate, immanent structure of the phenomenal field and the specifics of the child's behaviour are crucial in developing the child's ability to use substitutes in play and to use the same objects in different ways. This perspective complements Vygotsky's theory by highlighting the role of a child's innate structures and behaviour in shaping their imagination. Furthermore, the Gestalt psychologists' belief that the ability to visualise is closely related to the ability to solve problems also supports Vygotsky's theory. Children who are better at visualising are also better at problem-solving in everyday situations and social problems (Zittoun & Glaveanu, 2018). This finding emphasises the interconnectedness of imagination and cognitive development, a central aspect of Vygotsky's theory. Using a homeostatic approach, Iannone (2022) argued that the development of the child's imagination, manifested in the widespread use of substitutes in the game and the ability to use the same objects in different ways, is due to the specifics of the structures of the child's behaviour, which differ significantly from those in an adult. This perspective aligns with Vygotsky's theory by showing how the development of a child's imagination is influenced by the unique characteristics of their behaviour and cognitive structures. Similarly, Obuhov et al. (2022) have observed that, like adult artists, children also find their own forms of image and ways of embodying experience, with the development of artistic imagination being characterised as the discovery of new forms for old content or a new conceptualisation of familiar objects. In addition to this point of view, Nikitenko (2022) argues that the preference for round shapes in children's drawings is a genetic expression of the need for simplicity. Overall, the perspectives offered by

Gestalt psychologists and related researchers contribute to a more comprehensive understanding of the development of a child's imagination, providing support for Vygotsky's theory by highlighting the active nature of creative processes, the importance of innate structures and behaviour in shaping imagination, and the interconnectedness of imagination and cognitive development.

Freudian theories, with their focus on early experiences and the unconscious, provide support to Vygotsky's theory of imagination in their view of the emotional and psychological factors that influence creativity and imaginative processes in children. The idea that creativity is connected to childhood events and serves as a means of replacing or coping with these events aligns with Vygotsky's understanding of imagination as an essential aspect of a child's cognitive development. Moser and Sukla (2020) emphasise the role of the unconscious in shaping children's fantasies, which provides insight into the psychological origins of children's imaginative processes. This understanding of the child's imagination as a means of satisfying repressed desires through hallucinations or fantastical narratives complements Vygotsky's emphasis on the transformative nature of imagination in child development. Moreover, this is exemplified by Bogoyavlenskaya's (2022) findings on the content of stories told by preschool children that support Vygotsky's theory by demonstrating the connection between a child's imagination and their real-life experiences. The idea that children's fantasies are expressions of their unconscious tendencies, adapted to reality through cultural elements such as language and folklore, aligns with Vygotsky's belief in the importance of social and cultural contexts in shaping a child's imagination. Ilienkov's perspective (as cited in Iljin, 2021) that creative behaviour replaces childhood events, and that creative imagination is the ability to play with material in the preconscious also supports Vygotsky's theory. This view highlights the role of imagination in helping children process and make sense of their experiences, emphasising the cognitive aspects of imaginative processes.

Critiques of Freudian theories by Arnheim, Hudson, and Jung, while not directly supporting Vygotsky's theory, contribute to a broader understanding of creativity and imagination by challenging some of the assumptions made by Freudian approaches. These critiques give prominence to the need for a more exhaustive understanding of the factors that influence a child's imagination, such as the open-mindedness of the subject to external experiences and the ability to solve problems presented by reality.

Piaget's perspective on imagination, although not entirely aligned with Vygotsky's view, does offer some valuable insights that can indirectly support

Vygotsky's theory. By highlighting the disconnection between imagination and reality and the role of maturational factors in the development of imagination, Piaget's theories contribute to a broader understanding of the different ways in which imagination can manifest during childhood development (Veraksa & Samuelsson, 2022). Although Piaget (1952) generally posits that all mental development arises from the characteristics of the child's interaction with the environment, he does not assign a specific role to the imagination in this process, viewing it as a temporary stage of distorted reflection of reality. Piaget argues that the primary form of the child'srelationship to reality is the construction of an imaginary reality and the dominance of autistic thinking (Veraksa & Samuelsson, 2022). Piaget's notion of the child's interaction with the environment aligns with Vygotsky's emphasis on the role of social and cultural contexts in shaping a child's imagination. While Piaget does not assign a specific role of the imagination in cognitive development, his theories on the construction of an imaginary reality and the dominance of autistic thinking offer an additional perspective on the various factors that can influence a child's imaginative process. He defines autistic thought as a maladaptation to external reality and the creation of an imaginary reality or the reality of a dream (Veraksa & Samuelsson, 2022). This is followed by the displacement of the world of play by the world of reality, with the imaginary world being more real for pre-schoolers than the actual reality (Veraksa & Samuelsson, 2022). Piaget's notion of imagination as a stage of distorted reflection of reality, from my point of view as a researcher, dominated by autistic thinking, and displaced by the world of reality, highlights the importance of the relationship between the child and the environment. However, his emphasis on imagination as a temporary stage that serves the purpose of pleasure-seeking and the absence of its role in creatingnew forms of interaction with reality raises questions about the full scope of the imagination's functions.

Therefore, Vygotsky (1966/2022) pointed out that Piaget (1952/2021) defines the young child's imagination as a subconscious activity that serves the purpose of pleasure-seeking rather than comprehension of reality and as a non-social, non-communicative activity. Vygotsky (1966/2022) emphasised that the development of a child's imagination, as well as the development of other higher mental functions, is closely linked to the child's speech, which serves as the main psychological form of their connection with others and the main form of the child's consciousness' collective social activity. I find Vygotsky's idea that imagination develops alongside language to be particularly significant, as it suggests that imagination and social interaction are

inextricably intertwined. Furthermore, Vygotsky's emphasis on the collective social activity of consciousness highlights the importance of the social context in which a child's imagination develops. On the other hand, Piaget associated imagination with the development of representation. He believed that the child has two worlds: perceptual and representative, to which imagination belongs (Veraksa & Samuelsson, 2022). The beginnings of a child's imagination can be observed in imitation-action in the absence of an object. Imitation is an indicator of the beginning of decentration, and the child has representative images, which, according to Veraksa & Samuelsson (2022), are symbols of reality. Moreover, Piaget (1952/2021) noted that the child's impressions of reality are weak, and memory, all past experience, is turned on to support them. Although the emergence of representative images opens up wide opportunities for the assimilation of reality, in general, the child's representations cannot correspond to reality until they come under the control of sign thinking and of intellectual operations (Piaget, 1952/2021). The notion of imagination drawing children away from reality while also helping them separate reality from play, aligns with Vygotsky's idea of the "zone of proximal development." Vygotsky argues that through imaginative play, children can develop higher cognitive functions by interacting with their environment in new and creative ways. In this context, Piaget's findings on how children engage with their imaginary worlds can be seen as a necessary phase in cognitive development, ultimately leading to a more sophisticated understanding of reality.

Moreover, Piaget's identification of different types of images (static, kinetic, and transformed) provides additional insight into the various ways children use their imagination to engage with their environment. This understanding can complement Vygotsky's emphasis on the importance of social and cultural contexts in shaping a child's imagination, as children may use these different types of images to navigate their unique experiences and contexts.

According to Piaget (1952/2021), the imagination of children, particularly preschoolers, can distort their perceptions of reality. He found that children under nine years of age often answer affirmatively to the question of whether their mother can see their dream. In his studies, Piaget (1952/2021) recognises the cognitive value of imagination in its ability to contribute to the development of assimilative possibilities. However, he also maintains that imagination does not offer children new information and can often lead to subjectivism and distortion of reality. He also notes that the nature of children's ideas is related to the level of their knowledge of reality and not just to the capacity and nature of their imagination. He suggests that the ideas of young children

can be compared to the cosmogonic beliefs of ancient cultures in order to gauge their understanding of the laws of the world (Piaget, 1952/2021). However, hisunderstanding of imagination as solely a pleasure-seeking activity raises questions about the role of imagination in creative processes and its function in creating new forms of interaction with reality and discovering new connections and relationships within it.

In later studies, Piaget (1952/2021) viewed imagination as the ability to anticipate figuratively the transformation of a situation. He identified two aspects of the image: figurative and operational and connects the development of the latter to the bones of anticipation. He also identified three types of images, with copying being the main mechanism of imagination. These images appear in the following order: first, static images that reflect reality closely to perception, then kinetic images that reflect changes in the spatial positions of objects, and finally, transformed images that indicate a change in forms. However, even in this approach, imagination as a representation of future transformation does not reveal its specific characteristics but remains within the framework of studying the development of figurative thinking (Piaget, 1952/2021).

The works of Piaget (1952/2021) reveal the complex, contradictory nature of imagination. On the one hand, it draws the child away from reality and immerses them in an imaginary world permeated with beliefs in miracles and fairy tales. On the other hand, even when playing enthusiastically, the child begins to separate reality from play at the foamy stage. Piaget's perspective on imagination emphasises its dual nature in children's cognitive development. This complex interplay between the real and the imaginary contributes to their holistic growth and understanding of the world.

To overcome this contradiction, Hutson (2017) suggested that children have two types of imagination. The first is imagination which can be expressed by the phrase "as if" separating images from reality. Children use this phrase to indicate the limits of their images, putting emphasis on the conventional nature of their constructions.

Another approach to imagination, as proposed by Hutson (2017), is the increment of reality, where children are not aware of the fantastical nature of their ideas and fully believe in them. This imagination is manifested in the child's belief in miracles, in the events and heroes of fairy tales, and is associated with the mastery of cultural experience and is revealed in different ways in different cultures that align with Vygotsky's idea that imagination is an essential component of cognitive development. The idea that imagination can be both separate from and connected to reality highlights the versatility of imagination in children's cognitive growth. It is important to note that

this type of imagination is not focused on solving specific problems but rather on the child's ideas and their development, as well as their understanding of the world.

However, even the realistic imagination, as manifested in children's games, has been understood by some researchers as a gradual connection to reality. Dilalla and Watson (1988, as cited in Abraham, 2020) studied the development of imagination in pre-schoolers and its connection to reality. The findings of Dilalla and Watson (1988) on the development of the boundary between imagination and reality in pre-schoolers also support Vygotsky's theory by showing how children gradually learn to integrate imagination and reality. They found that children do not initially have a clear boundary between the two, often experiencing their imagination as reality. For instance, when they are afraid of monsters even though they were created by themselves. As children develop, they begin to outline a shaky boundary between imagination and reality and eventually gain control over these transitions, leading to the integration of imagination and reality. This is demonstrated in play improvisations, where children can make changes to their fantasy without interrupting the game.

This position, however, has been challenged by the work of researchers like Bogoyavlenskaya (2022), Leontiev (1975), and Losev (1930). They all challenge the notion that children cannot initially distinguish between imagination and reality. Instead, they emphasise the importance of the connection between imagination and reality from the start, which supports Vygotsky's idea that children's cognitive development is driven by their ability to use imaginative processes to understand and interact with their environment. Bogoyavlenskaya (2022) noted that regardless of how vivid and emotional a child's imagination is, they are able to distinguish between what is imagined and what is actually perceived. Leontiev (1975, as cited in Flavin, 2017) pointed out that as play allows children to be emotionally invested, the feelings they have are quite real and never appear as though they have been affected by a hallucination. Additionally, Losev (1930, as cited in Marchenkov, 2020) argued that reality is the first and most important step in defining a symbol, regardless of how it is interpreted, and if reality and its symbols are feasible, then there are no feasible reality symbols and vice versa.

The connection between imagination and reality in the development of children's cognitive abilities has been widely debated among researchers. While some, such as Piaget (1952/2021), argue that imagination serves as a temporary stage of distorted reflection of reality and can lead to subjectivism and distortion of the picture of reality, others, like Vygotsky (1962/2022,) emphasised the inextricable link between

the development of imagination and the development of other higher mental functions, such as speech, which serves as the main psychological form of connection with others. In contrast to Piaget's view, Vygotsky prioritised the importance of imagination in not only understanding reality but also in creating new forms of interaction with it. I appreciate Vygotsky's focus on the social and collective nature of imagination and how language plays an essential role in its development. As children interact with others and learn from their experiences, they develop the ability to use symbols and sign systems to represent reality in their minds. This process of sign thinking allows children to create mental representations that correspond more closely to reality and to manipulate these representations in their imagination to generate novel ideas and possibilities. Vygotsky's approach to imagination aligns with my own understanding of the power of imagination in shaping our perception of the world and generating innovative solutions to complex problems.

The role of imagination in creative processes has also been a rich topic of discussion. Cobb (1959/2020) posits that the first significant manifestations of imagination occur around the age of 5-6 years when children experience a sense of harmony and unity with the universal energy of the cosmos. These feelings of harmony are particularly pronounced at the ages of 6 and 17, which coincide with bursts of creative imagination. According to Cobb (1959/2020), the foundations for true imagination are laid in early childhood through a child's sensory experiences, interactions with the environment, and their participation in play that construct a symbolic representation of the world. The main source of imagination is the gap between the perception of one's "I" and the perception of the universal. Games arise as a result of this perception gap, which is a consequence of the prolonged period of childhood in the process of evolution. Moreover, Cobb (1959/2020) posits that imagination is directed towards cognition, specifically the cognition of universal, higher meanings. He stresses the importance of stimulating children's creative imagination through exposure to cultural products while highlighting the dangers of derivative thinking. Despite this, the unique characteristics of children's imagination are not compromised. Furthermore, for Cobb (1959/2020), all childhood is a stage on the path towards understanding higher truths through the realisation of thetranscendental "I". Although imagination is aimed at cognition, it is detached from reality and has little connection to the child's everyday life. Children should beencouraged to fully embrace their feelings and experiences, through which the highestirrational values are revealed.

On the contrary, Vygotsky's position on imagination is different from Cobb's in several ways. Vygotsky (1966/2022) believes that imagination is closely tied to the child's everyday life and is intertwined with the child's social and cultural experiences. For Vygotsky, imaginative play is a critical aspect of a child's cognitive development, and it involves the use of symbols and signs to represent objects and events in the child's environment. Vygotsky argues that imaginative play allows children to practice and refine their use of language, which is a critical tool for cognitive development. In contrast to Cobb's emphasis on the transcendental "I," Vygotsky (1966/2022) reinforces the role of social interactions and cultural tools in shaping children's imagination. He argues that children's imaginative play is not detached from reality but is instead a way of understanding and making sense of the world around them. Vygotsky (1966/2022) also accents the importance of cultural artifacts such as stories, myths, and games in shaping children's imaginative play and promoting their cognitive development. For Vygotsky (1966/2022), imagination is a product of social and cultural processes and is closely linked to children's cognitive and linguistic development.

Moreover, Sartre (as cited in Smidt, 2019) posits that imagination has no limitations in terms of time or place, suggesting that the artist is not constrained by the laws of reality. This perspective on creative processes renders them esoteric and inaccessible to the analysis of their structures, mechanisms, and nature. In contrast to Sartre's perspective on imagination as unlimited and unconstrained by reality, Vygotsky saw imagination as grounded in the cultural and social context in which it develops. For Vygotsky, imagination is a product of the interaction between the individual and the cultural environment and is therefore constrained by the norms, values, and beliefs of that environment.

Vygotsky's sociocultural theory posits that imagination and creativity are shaped by cultural tools and practices that individuals learn and internalise through social interaction with others. According to Vygotsky (1966/2022), children develop higher mental functions such as imagination and creativity through interactions with more knowledgeable others who provide scaffolding and guidance. Therefore, Vygotsky would likely argue that a quantitative approach to studying imagination and creativity that focuses solely on individual cognitive processes may miss the broader sociocultural factors that shape these phenomena. All the theories mentioned above, at least in part, support Vygotsky's theory of imagination by illustrating different aspects of the connection between imagination and reality in child development. They draw attention to the complexity of the relationship between imagination and reality and the

role of culture and social context in shaping a child's imaginative processes. This aligns with Vygotsky's emphasis on the importance of social and cultural factors in the development of higher cognitive functions. By recognising the cognitive value of imagination, these theories contribute to a richer understanding of how imagination functions within the broader framework of child development.

As a researcher, I have noted that creative processes are often referred to using different terms such as "divergent thinking", "creative thinking", "creativity", and "imagination," which are not always specifically differentiated. For some researchers, tasks aimed at identifying creativity are actually more focused on diagnosing creative thinking, while others involve imagination. In this research, I have endeavoured to keep in mind the different terms used to refer to the imagination and ensure that I am specific in my description of these processes.

Vygotsky emphasises the significance of examining imagination within cultural and social contexts and recognising how cultural tools and symbols influence an individual's imagination. By understanding the role of culture in shaping imagination, we can gain a deeper understanding of how individuals engage in imaginative processes and how their imagination can be nurtured and developed within different cultural contexts. Accordingly, incorporating Vygotsky's perspective in studying imagination can enrich our understanding of these constructs and provide valuable insights for promoting creative thinking and problem-solving in diverse populations.

In the later works of scientists, I have found indications of the mechanisms of imagination, which are understood mainly as various possibilities for operating with images. Many researchers, such as Bry, Gruber, Langer, and Short, Ainsworth-Land, Bernstein, and others, have explored the characteristics of imagination, such as fluency, flexibility, and originality, as well as the conditions that lead to a creative act. Moreover, they have investigated the different levels of functioning of the imagination, including the transformation of the known, the search for a new idea, and the creation of a new paradigm. These studies have shown that the mechanisms of imagination are diverse, ranging from spontaneous imagination to combinatory imagination. Some researchers also compared the development of convergent and divergent thinking and their relationship with intelligence and imagination. While some argue that intelligenceand imagination are independent lines of development, others propose a threshold theory where the two are connected up to a certain level and then become independent variables.

So, Bry (as cited in Herrstrom, 2022) described several types of imagination, differing in the way the images function. The first type is spontaneous imagination (imagination of an open screen), when images of reality are directly reproduced. The second type is the use of images to manipulate in accordance with a given goal. The third type is the combining imagination, which provides access to both abstract and unconscious material. According to Gruber, Langer, and Short (as cited in Tomasello, 2022), the main mechanism of imagination is not the combination of reproductive images but the use of non-sensory characteristics in the images of imagination.

A number of researchers, including Ainsworth-Land (as cited in Miller, 2019), Barron (as cited in Abraham, 20202), Cristante (as cited in Conti, 2020), Marsh (as cited in Harding, 2019), and Torrance (as cited in Luria, 2018), have studied the conceptof imagination. These studies have typically focused on describing the characteristics of imagination, such as fluency, flexibility, and originality, as well as the conditions that lead to a creative act. Additionally, researchers have explored the different levels of functioning of the imagination, including the transformation of the known, the searchfor a new idea, and the creation of a new paradigm.

Many studies have also compared the development of convergent and divergent thinking. This comparison is often made by analysing quantitative results, with convergent thinking being measured by IQ tests (Bernstein et al., 2017) and divergent thinking being measured by open-type tasks. However, some researchers have argued that convergent and divergent thinking are independent lines in the development of intelligence and that intelligence and creativity are not correlated (Getzels, Jackon, Torrance & Flescher, as cited in Luria, 2018). Other researchers have found high correlations between intelligence and imagination (Marsh, Edvards, Tyler, Riben, as cited in Harding, 2019). Additionally, some researchers have proposed the "threshold theory" or "branching theory", which suggests that intelligence and imagination are connected up to a certain level and then become independent variables (Barron, Gropliy, Freeman, Butcher, Christie, as cited in Abraham, 20202).

Moreover, many studies have analysed the various factors that affect the development of a child's imagination. A study conducted by Bayard-De-Volo and Feibert (as cited in Dui & Nikolskaya, 2022) found that the imagination of 4–5-year-old children is inversely related to authoritarian parenting but is not affected by factors such as the child's gender, birth order, or IQ level. Other studies, such as those conducted by

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Canaday, Katz, Kovatch, Szabo, and Schapiro (as cited in O'Donnell, 2020), have identified quantitative relationships between the development of imagination and factors such as family structure, communication style within the family, play activities, verbal development, and task instructions. Harrington and colleagues (as cited in Farmer, 2017) found that the level of divergent thinking in 4–5-year-old children correlate with their imagination after 6-7 years, but no such correlation was found for convergent thinking. Vygotsky would agree that these studies are important because they underscore the significance of understanding the impact of factors such as parenting style, family structure, and communication style on children's creativity can provide valuable insights into the cultural and social contexts that shape their development. Additionally, the finding that divergent thinking in early childhood is correlated with imagination later in life supports Vygotsky's view that the development of imagination is a continuous process that extends beyond early childhood and is shaped by social and cultural factors over time.

It is worth noting that despite the predominance of quantitative approaches, attempts have been made to identify qualitative levels of creative process development. So, Taylor (as cited in Fields et al., 2019) proposed the following levels of imagination development: 1) depicting imagination - the child freely expresses their knowledge and feelings through various activities (such as play, speech, and drawing); 2) productive imagination - the child can apply existing knowledge to new situations; 3) invention the ability to discover new and unusual relationships between previously unrelated elements; 4) innovation - the creation of a fundamentally new solution to a problem; 5) creativity - the emergence of an objectively new (for society) principle or hypothesis. In the field of psychology, researchers have identified three primary approaches to understanding the origins of imagination over the course of several decades. The first approach, advocated by scholars such as Piaget (1952/2021) and Freud (1900/Frese & Sabini, 2021), associates the genesis of creative processes with the maturation of specific cognitive structures. In the second approach, represented by Koffka and Arnheim (1986/Hughes, 2022), the development of imagination is seen as a cumulative process influenced by both individual experiences and the broader trajectory of human biological development. Lastly, proponents of the third approach, including Bain (1973) (Ribot, 2022), provide a comprehensive explanation for the origin and progression of imagination based on the accumulation of individual experiences.

In terms of the role of imagination in cognition, various authors have analysed two lines or types of imagination to varying degrees. The first line is the development of cognitive imagination, which is aimed at solving problems that the child faces in reality, as shown in studies by Ribot, Dewey, Wertheimer, and Arnheim (Ribot, 2022). The second line is the development of emotional imagination, which is directly related to the development of the emotional-need sphere of the personality and is aimed at resolving its internal contradictions and obtaining satisfaction, albeit illusory (Piaget, 1952/2021).

Vygotsky (1966/2022) was one of the first to demonstrate that imagination, like other mental functions, is a reflection of the surrounding reality, is social in nature, and has basic prerequisites for its development in preschool childhood. Vygotsky (1966/2022) believed that imagination was originally and inextricably linked with reality and pointed to various forms of connection between imagination and reality. According to Vygotsky (1966/2022), the first way that imagination and reality are connected is through the fact that whatever creation a person makes out of their imagination is always made up of components drawn from reality and from elements of the person's past experiences. The most fantastic images are built from elements of images of reality, from elements of a person's past experience.

Hence, according to Vygotsky (1966/2022), the imagination of children is generally less developed compared to that of adults. He posits that there are several forms of connection between imagination and reality. The second form of connection is the relationship between the product of imagination and the phenomenon of reality. The product of imagination can align with reality when it is associated with the assimilation of social experience and the expansion of one's own experience. The third form of connection is emotional, where Vygotsky (1966/2022) argues that there is a twofold relationship between imagination and emotions. On the one hand, this is a combination of images that have a common emotional colouring, and on the other hand, imagination itself influences feelings. The fourth form of connection is when the result of imagination does not match an actual object, but after taking on a physical shape, the crystallised imagination starts to exist in the world and have an impact on other things. Finally, Vygotsky (1966/2022) emphasises that the imagination is initially and always connected to reality, and creative processes are accessible to analysis, taking into account the real experience of the subject. This connection may be explicit, as seen in the presence of elements of reality in the products of the imagination, or it may be indirect, where the connection is not immediately apparent. Regardless, the analysis of creative processes becomes accessible when the real experiences of the subject are taken into account. In addition, Ribot (1973/2022) concurs with Vygotsky (1966/2022)

that the primary actions of the imagination are associations and dissociations and that these actions are further examined in relation to the processing of impressions from reality.

However, according to Vygotsky (1966/2022), dissociated elements can be subject to various changes. In the case of children, these changes often manifest as exaggerations or understatements of individual impressions. Children frequently exhibit a tendency to exaggerate or underestimate the size of real objects in their fantasies, which is believed to be reflective of their innate desire for the extraordinary. Additionally, Vygotsky (1966/2022) posits that the action of association, as a unification of dissociated and changed elements, is also a fundamental aspect of the unified mechanism of imagination.

Regarding the dynamics of isolated actions of the imagination, Vygotsky (1966/2022) contends that genuine creative imagination can be identified when it manifests in external images or products and transforms into reality if it crystallises in external images, external products, it turns into reality, being, in essence, the solution of a certain task facing a person, as a part of the mechanism of productive imagination's analysis.

Vygotsky (1966/2022) posits that the origin of a child's imagination can be traced to their engagement in play. He argues that the child's imagination emerges as a necessary outcome of the specificity of their behaviour during play. Furthermore, Vygotsky (1966/2022) emphasises that the child's imagination is not simply a recollection of their experiences but rather a creative processing of those perceptions, allowing them to create a new world that caters to their wants and inclinations. This understanding of the nature of imagination highlights its active character, as it arises in play activity and is closely connected to the developing personality's need-motivational sphere.

In addition to Vygotsky's point of view, Rubinstein (Tylor, Rubenstein & Carlson, 2021) also notes the active role of play in the development of imagination, noting that play is a representation of the player's attitude towards the world and serves as a connection between the child's needs, emotions, and desires, and reality. Elkonin (1993/Ness, 2021) furthers this argument by demonstrating that the child's play and imagination arise from the contradiction between the child's desire to live as an adult and their inability to do so in reality, highlighting the social nature of the needs that drive the child's activity and imagination.

Additionally, Elkonin's (1993/Ness, 2021) view on the importance of creating imaginary situations within play complements Vygotsky's perspective on symbolic play. According to Vygotsky (1966/2022), children can use toys as symbolic representations of other objects during play, pointing out the importance of the functional usage of the toy over its physical resemblance to the object it represents. Elkonin (1993/Ness, 2021) also argues that even the earliest forms of play, where one object is substituted for another, possess a social essence, as evidenced by the various roles that children adopt during play, often depicting real people or characters from works of fiction. Together, these perspectives suggest that play serves as a means for children to satisfy their social needs by creating imaginary situations with symbolic meaning.

Moreover, the development of imagination in children has been extensively studied by Russian psychologists, such as Leontiev, Elkonin, Mikhailenko, and Korotkova (Stolyarenko, 2019), with a focus on the extent to which the mastery of a subject and plot-role-playing games affect its development. Leontiev's perspective on play as the primary activity of preschool children and its connection to the development of imagination complements Vygotsky's ideas about the symbolic nature of children's play objects. Leontiev (1973/Ness, 2021) posits that play is the primary activity of preschool children and has conducted an in-depth analysis of the emergence of imagination in their play activity. He argues that imagination is born from the need to create a special play situation with a unique play meaning. In the play, the meaning and significance of the object are separated, and a new, unrelated meaning emerges. For example, a child jumping on a stick, imagining it to be a horse, and performing actions associated with riding a horse. This divergence of operations and actions is united through the creation of an imaginary situation (Stolyarenko, 2019).

Moreover, Kodzaspirova (2022) notes that the development of imagination in preschoolers' play has not been specifically studied, but significant moments for its development have been identified through the analysis of the play. There are two main lines of analysis where the game serves as the primary source for the development of preschoolers' imagination. According to Bogoyavlenskaya (2022), the first line is related to the development of the characteristics of play activity during preschool childhood. Elkonin (Gippenreiter, 2022) believed that the prerequisite for the emergence of the first play situations is the development of objective actions in the child, specifically their generalisation and separation of the action scheme from the object, which is observed in the third year of life. This manifests in two situations: when

an action with an object is transferred to new conditions or when an action is performed with a substitute object. In the latter case, Trifonova & Vasukina (2019) highlight that the prerequisites for the emergence of imagination can be observed as the child is required to imagine and substitute one object for another. These perspectives identify the emergence of imagination in situations where children are required to substitute one object for another, which is similar to Vygotsky's view of the role of play in the development of imagination. Therefore, both Vygotsky's views on imagination and the analysis of preschoolers' play activities highlight the importance of the use of objects symbolically in the development of imagination.

Ushakov's ideas (2022) on the development of imagination in children through the use of individual objects and role-playing actions are consistent with Vygotsky's ideas on the symbolic use of objects in play. Vygotsky (1966/2022) proposed that certain objects may take on symbolic meanings and serve as stand-ins for other objects during play and that the functional usage of the toy or the ability to make gestures that represent the object it represents is more significant than any physical similarities the toy may possess to the object it represents. Similarly, Ushakov's emphasis on role-playing actions as a means to develop imagination aligns with Vygotsky's emphasis on the importance of children assuming various roles in play to analyse reality from different perspectives. Both theories suggest that imagination develops through children's play activities, including the use of objects and role-playing, and that the content of play evolves over time as children become more adept at assuming different roles and representing objects symbolically.

This idea is further supported by Obuhov et al. (2022), who argue that the transition to role-playing at the age of 3-4 years opens new opportunities for the development of the child's imagination. Through role-playing, children not only represent object but also assume various roles, thus enabling them to analyse reality from different perspectives. Furthermore, Obuhov et al. (2022) argue that the content of the role-play develops over time. Initially, the focus of the play is on reflecting the role positions of adults through chains of certain role-playing actions. As the child reproduces the external, active aspect of each role, they become particularly attuned to observing the external side, order of actions, and elaboration of adult roles. Gradually, as noted by Nikitenko (2022), the content of the play shifts towards displaying the norms and rules of human relations that underlie the role. In this way, the child becomes more attuned to not only what is done but also how it is done. Additionally, Elkonin (1973/Fleer, 2022) concurs with this perspective and contends that the play with an

open role and a hidden rule gradually evolve into a play with a hidden role and an openrule.

In the context of the play, children draw upon their needs and experiences, but as Elkonin (1973/Fleer, 2021) noted, they use a special form of experience by bringing it outside, materialising, and effectively recreating it. The focus of productive imagination in play, as identified by Fleer (2021), is on solving a wide variety of open problems and the ability to combine the subject contents of two objects into a single image through symbolisation, revealing the essential characteristics of reality. The product of imagination, in this case, is the imaginary situation itself, the content of which coincides with the content of the play.

However, Cohen & Waite-Stupiansky (2017) discovered that during a specific phase of play activity, the child's imagination, which has its roots in play, gains the ability to direct its own development and progression. Moreover, Ushakov (2022) suggested that role-playing behaviour becomes limiting to the further development of play activities as children reach older preschool ages. At this stage, children not only seek to fulfil a particular role but also strive to create and enact a comprehensive storyline within their play, with the plot being viewed as a manifestation of the child's active and productive imagination.

The importance of coordination, cooperation, and the directed formation of plot construction in the development and refinement of playing activity align with Vygotsky's theory of the social basis of cognitive development, as Bruce et al. (2017) observed that the execution of play activities at this stage is influenced by the level of development of the children's productive imagination. However, this imagination takes on a unique form, distributed among the participating children. In order to carry out play as a collective activity, the participants need to coordinate their actions. This coordination involves the creative process of collaboratively constructing the play activity, enabling children to engage effectively with one another and contribute to the development of the shared narrative.

Building on this understanding of the role of imagination and coordination in play activities, Bakulina et al. (2022) demonstrated that the development and enhancement of playing activities can be achieved through the directed formation of a method for constructing the play. Consequently, the notion that a child's imagination gains the ability to determine its own development and course during a particular stage of play activity aligns with Vygotsky's perspective that play serves as a foundation for the development of higher mental processes. In addition, it is clear that the development

of the child's imagination is closely linked to their play activity. As Vygotsky (1966/2022) and Elkonin (1973/Ness, 2021) have highlighted, the imagination is first born in the play and then emerges as a result of the child's need to create a special play situation. The play itself, and the child's emotional involvement of the child in it, creates opportunities for the development of creativity. As the child's play progresses, they begin to take on roles and analyse reality from different positions, as identified by Obuhov et al. (2022). The content of the role-play develops, with the child reproducing the external, active side of each role and becoming more attentive to observing the external side and order of actions of adults. This shift in the content of the play leads to the display of norms and rules of human relations, as noted by Nikitenko (2022) and Elkonin (1973/Fleer, 2022). The child's imagination acquires the ability to determine the development and course of the play activity, as identified by Cohen & Waite-Stupiansky (2017) and Ushakov (2022). The development of the child's productive imagination is also closely linked to the development of the most complex method of plot-roleplaying, as highlighted by Smith & Roopnarine (2018) and Bakulina et al. (2022). The development of the child's productive imagination in play, as it has been discussed above, is found to be closely linked to the directed formation of plot construction in play. The study by Bakulina et al. (2022) has identified significant shifts in the development of play among older pre-schoolers following direct instruction in plot construction. This finding is consistent with the work of Trifonova and Vakulina (2019), who posit that imagination, which emerges from play, drives the development of play activity. Furthermore, as Vygotsky (1966/2022) noted, the play of 2.5 to 3-yearold children is closely tied to the use of objects, while at older ages, imagination can operate independently without the need for external support. Bogoyavlenskaya (2022) suggests that this transition from the dependence on objects to the internalisation of imagination is particularly evident in boundary play, as observed by several authors, including Ushakov (2022). Of particular interest in this context is imaginative play, which Leontiev (1973/Fleer, 2022) notes as a form of boundary play, as the transition from play dependent on objects to internalised imagination, particularly evident in boundary play, is essential for the development of more complex and nuanced forms of play and imagination. He posits that boundary play, also known as transitional play, is a fundamental stage in the development of imagination. This type of play involves a shift from play that is closely tied to objects or rules to play that is more internally driven. In other words, it marks the transition from play that is dependent on external stimuli to play that is driven by internal imagination.

Furthermore, Leontiev (1973) argues that boundary play, including fantasy play, is essential for the development of imagination, as it allows children to detach their imagination from the external world and internalise it. This, in turn, allows for the development of more complex and nuanced forms of play and imagination. Through boundary play, children learn to use their imagination in new and creative ways, expanding their cognitive and emotional capabilities (Fleer, 2022).

Obuhov et al. (2022) proposed two closely related processes seen in play activities: the internalisation of play and the internalisation of imagination. Moreover, Ushakov (2022) emphasised that the ability to act in terms of representations is crucial as it allows children to externalise the products of their imagination in a wide variety of activities, such as play, visual arts, and speech. In addition, as noted by Vygotsky (1966/2022), the relationship between play and imagination is complex and dialectical, with both processes complementing and enriching each other as they develop. Furthermore, other types of children's activities, such as drawing and dramatisation, are also born out of play and are essential for the development of a child's imagination. This syncretism is the common root from which all forms of children's art have been subdivided, with each type voluntarily absorbing and incorporating elements of other types, and this common root is the child's play, which serves as a preparatory stage for their artistic creativity.

While Vygotsky (1966/2022) initially posited that children's imagination was similar to play in its nature and connection to the child's experiences, subsequent studies have demonstrated that each type of productive activity has distinct features and developmental patterns. The studies showed that, with a common origin from play, each type of productive activity has its own specific features, its own patterns of development. According to Trifonova & Vasukina (2019), during preschool childhood, constructive, musical, artistic, speech, and visual activities are formed that contribute to the development of the child's imagination. Bogoyavlenskaya (2022) noted that the specificity of the significance of these types of activities for the development of the imagination lies in the fact that their implementation allows you to directly set a creative task for children, giving the child the task to think up, compose, do something on their own. Moreover, Ushakov (2022) admitted that such an instruction is possible only if it is focused on the product and not on the process, as it happens in playing activities. A direct task for a creative solution makes it possible to actualise children's imagination (Iljin, 2021) most fully. Furthermore, Podlasyi's study (2018) showed that the level of imagination in solving open problems varies depending on the instruction. With direct

instructions to find a creative solution, it turns out to be significantly higher than with instructions to simply solve the problem. Therefore, it can be assumed that the direct task of one's own creativity contributes to the most complete manifestation of the imagination of children (Podlasyi, 2018).

It is interesting to note how Vygotsky's belief that children's imagination is similar to play has been further studied to show that each type of productive activity has its own specific features and patterns of development, with the ability to directly set a creative task for children contributing to the most complete manifestation of their imagination. Ushakov's admission (2022) that direct instruction focused on the product, rather than the process, is key to actualising children's creative abilities is particularly important, as well as Podlasyi's study (2018) demonstrating that direct instruction for creative solutions led to significantly higher levels of imagination in solving open problems. These findings suggest the importance of providing children with a range of productive activities and creative tasks that can help promote their imaginative and innovative capacities.

The development of creative abilities in preschool children has been a subject of interest for many researchers. Bruce et al. (2017) noted that throughout preschool childhood, at all stages of mastering various types of activities, it is possible to perform creative tasks that stimulate the development of the child's imagination. Moreover, Mironenko (2022) admitted that the main contradictions that ensure self-movement, self-development of the imagination are born and resolved: the contradictions between the emotionality, impulsiveness of the child's experiences, the dynamism and instability of their ideas and the need to express images of the imagination either in a certain creative product or in an organised play that also requires directed imagination. However, the contradictions between the child's emotional impulses and the need for directed imagination can pose challenges.

Bogoyavlenskaya (2022) has revealed that in the detailed analysis of the development of various types of activity, two ways of the formation of creative abilities appear but are not specifically analysed. The first way is the fairly flexible and creative mastery of specific means of artistic expression, such as musical language. In this case, creative manifestations will refer to the independence and variability of the use of these means. The second way is the development of imagination as such, regardless of the specific type of activity (Bogoyavlenskaya, 2022). The relationship between the development of imaginative possibilities unique to each activity and the child's imagination remains an open question. The mechanisms of imagination and their

development in preschool childhood, as described by Davydov (2008), are of particular interest in understanding this relationship.

Furthermore, Luthy, Smith & Zittel (2018) emphasised that the relationship between the development of creative possibilities specific to each type of activity and the child's imagination remains an open question. Its solution is possible only by analysing the mechanisms of imagination and their development throughout preschool childhood. In this sense, the concept of Davydov (2008) on the mechanisms of imagination and its development is of particular interest, as he posits that imagination is one of the main neoplasms of preschool childhood (see also Fleer, 2022).

Riterman (2022) defines the main features of imagination as the ability to grasp the whole before the part and to transfer the features of one object of reality to another. Nikitenko (2022) found that the development of these features in preschool children is considered on the basis of the study of various types of activity, such as familiarisation with the environment, play, free experimentation, and artistic activities. At the same time, imagination is understood broadly as the main form of cognition in preschool childhood, which is necessarily included in all types of mental activity of the child.

Ushakov (2022) notes that in all the described approaches to children's creativity and the development of imagination, not only theoretical constructions are revealed but also the practical results of applying these concepts in the process of directed formation of creative activity in children. However, Vygotsky's (1966/2022) perspective on the nature and simultaneity of the creative act, the absence of long-termwork, and its connection with the child's experiences provide insight into the development of imagination in children. Moreover, these research findings not only support Vygotsky's theory of imagination but also provide valuable insights into how different types of productive activities can contribute to the development of children's imaginative and creative capacities. The emphasis on direct creative tasks and a focus on the product rather than the process offers a practical approach to promoting children's creativity and cognitive development, reinforcing the importance of diverse activities in nurturing their growth.

Finally, it can be said that the child's imagination is initially and constantly connected with reality. The origin and functioning of the imagination are determined by the developing activity of the preschool child and, above all, the play. Imagination has an active, directed character, being initially associated with the development of the motivational-need type of the personality as a socially conditioned process both in its origin and in its content.

### 3.4. Vygotsky and Complementary Perspectives on the Imagination

Vygotsky's theory of imagination is a comprehensive view that integrates different perspectives on imagination, including the idea that imagination is the result of brain activity, the role of experience in its formation, the influence of the collective unconscious, and the necessity of imagination for the existence of the human mind. In this section, we explore Vygotsky's theory of imagination and how it contributes to the understanding of the development and functioning of imagination in preschool children. I will also examine other notable perspectives on imagination, such as Kant'sand Jung's, and how they relate to Vygotsky's theory.

Vygotsky's theory of imagination offers a comprehensive perspective on the development and functioning of imagination in preschool children, taking into account various factors such as brain activity, experience, and the collective unconscious. This theory highlights the role of past experiences in creating new images and positions and how the brain synthesises and creatively analyses these components. In contrast, Kant's perspective proposes that imagination is based on innate components, including a priori ideas about space and time. Examining these different perspectives on imagination can provide valuable insights into the complexities of imagination and its role in human cognition. Kant (1981/Horstmann, 2018) pointed out that imagination has two components; one obtained from experience, and the second pre-experimental, which is based on a person's initial ideas about space and time. With the help of imagination, sensuality (the ability to feel) and reason interact, and thus, thanks to imagination, cognition exists (Horstmann, 2018).

Sartre's perspective (1936/as cited in Smidt, 2019) on imagination complements the idea presented in the previous section that imagination is an essential aspect of human cognition. Vygotsky's theory of imagination emphasises the role of imagination in the construction of new images from previous experiences, while Sartre's perspective (a1936/as cited in Smidt, 2019) highlights the capacity of imagination to transcend the limitations of individual circumstances and connect us to a broader reality. Together, these perspectives provide a more comprehensive understanding of the significance of imagination in the human experience. Jung's perspective on imagination is related to Sartre's idea that imagination is necessary for the existence of the human mind. While

Sartre emphasised the role of imagination in expanding our awareness of ourselves and our place in the world, Jung focused on the collective unconscious as the foundation of imagination. Both perspectives suggest that imagination plays a crucial role in shaping our understanding of ourselves and the world around us.

As Jung (1921/as cited in Segal, Błocian & Kuzmicki, 2022) believed that imagination is based on the collective unconscious - a pre-existent primordial stratum in the psyche from which may arise patterned behaviours and certain symbols, images, and ideas the comparison of which show a commonality across culture. It is not a coincidence that many peoples have similarities in their mythological and fairy tale stories; for example, the story of a hero who stole fire from heaven and was punished by the gods.

In other words, free imagination is superimposed on a certain coordinate grid, which largely shapes our perception of the world. Such a grid is partly an integral property of human beings as biological species. It goes back to the historical (and even prehistoric) memory of ancient rules of life and rituals (Segal, Błocian & Kuzmicki, 2022). Nemov (2022) points out that in the process of educational activity, the child masters the knowledge and skills developed by mankind. The main direction in this period of the child's life, as previously mentioned, becomes a learning activity and its success largely depends on the level of development of various types of children's memory. Stolyarenko (2019) admits that the work of many researchers is devoted to questions of developing primary school students' memory. However, Vygotsky's perspective on imagination adds to the idea that the coordinate grid upon which our imagination is superimposed is partly shaped by our experience and the culturalhistorical context in which we live. According to Vygotsky (1966/2022), human mental processes, including imagination, are not only shaped by biological factors but also by cultural and historical ones. In the process of educational activity, children not only acquire knowledge and skills but also develop their imagination, which is influenced by the cultural-historical context in which they live. Thus, the development of children's memory, which is essential for successful learning activity, is not only a biological process but also a cultural and historical one.

Vygotsky's theory of imagination is not limited to his own perspectives but also incorporates elements of other views on imagination, such as Kant's and Jung's, as well as the idea of imagination being a necessary condition for the existence of the human mind proposed by Sartre. Vygotsky's theory emphasises that imagination is

superimposed on a certain coordinate grid that largely determines our perception of the world and is partly an integral property of human beings as a biological species.

For example, Kant's idea that imagination has two components; one obtained from experience and the second pre-experimental, which is based on a person's initial ideas about space and time. Vygotsky believed that the imagination allows sensuality (the ability to feel) and reason to interact, and thus, thanks to imagination, cognition exists. His theory of imagination also incorporates the idea of imagination being a necessary condition for the existence of the human mind, proposed by Sartre which allows us to overcome the framework of our own personality and specific life circumstances and become aware of ourselves as part of the whole – humanity.

Thus, Vygotsky's theory of imagination is a comprehensive view that integrates various perspectives on imagination, including the idea that imagination is the result of brain activity, the role of experience in the formation of imagination, the interaction of sensuality and reason, and the necessity of imagination as an essential factor of the human mind. All these perspectives have become the basis of Vygotsky's theory of imagination and have contributed to the understanding of the development and functioning of imagination in preschool children.

### 3.5. Vygotsky's Theory of Imagination and Its Relevance to Education Today

Vygotsky's theory of imagination (1966/2022) has had a profound impact on the field of psychology and education. His ideas have been further developed and expanded upon by a number of his followers, who have made significant contributions to our understanding of the role of imagination in cognitive development. His theory of imagination formation continues to be widely studied and debated by researchers. In regard to the imagination, Vygotsky's substantial contribution to education draws from his emphasis on the role of imagination in the development of higher mental functions, such as problem-solving, abstract thinking, and creativity.

A key follower of Vygotsky's theory of imagination was Luria (Luria, 1976, Goldberg, 2019), who also made significant contributions to the field of psychology and education. Luria's main contribution was to focus on the role of imagination in the development of cognitive abilities in children. He argued that children's imagination is a key factor in their ability to learn and understand new information. Luria also noted the importance of providing children with opportunities to engage in imaginative activities, such as storytelling and role-playing, in order to support the development of

their cognitive abilities. Another follower of Vygotsky who further developed his ideas was his student and colleague Kozulin. Kozulin (1999, as cited in Flavian, 2019) argued that Vygotsky's theory of imagination needs to be understood in the context of his broader theoretical framework, which represents the role of culture and society in shaping cognitive development. Kozulin (1999) highlighted that imagination is important not only for the development of cognitive abilities but also for understanding the cultural and social contexts in which individuals live (Kozulin, 1998, Turner, 2020).

A further follower of Vygotsky's theory, Cole, has been instrumental in exploring the role of imagination in the process of learning. He proposed that imagination is an essential aspect of the learning process, as it allows individuals to construct new knowledge and understandings by mentally manipulating and transforming information. Cole also emphasises the importance of providing individuals with opportunities to engage in imaginative activities, such as play and experimentation, in order to support the development of their cognitive abilities (Cole, 2011, Nalbantian & Matthews, 2019).

The work of James Wertsch is also considered as an important continuation of Vygotsky's theory of imagination. Wertsch (1985, as cited in Schmidt, 2020) has prioritised the role of imagination in the development of collective memory and cultural heritage. He has argued that imagination plays a vital role in the process of cultural transmission by allowing individuals to mentally manipulate and transform cultural knowledge and understandings. Wertsch (1985, as cited in Schmidt, 2020). He has also highlighted the importance of providing individuals with opportunities to engage in imaginative activities, such as storytelling and role-playing, in order to support the development of their collective memory and cultural heritage (Wertsch, 1985, as cited in Schmidt, 2020).

More recently, researchers like Vygotsky's student and colleague, Kravtsova, has focused on the role of imagination in the context of early childhood education (Bogoyavlenskaya, 2022). Kravtsova has argued that providing young children with opportunities to engage in imaginative play and activities can support the development of their cognitive abilities, language skills and creativity (Bogoyavlenskaya, 2022). She also emphasised the importance of teachers providing a rich and stimulating environment that encourages children's imagination and the role of parents in supporting their children's imagination through interactive activities and storytelling (Bogoyavlenskaya, 2022).

A final follower of Vygotsky's theory worthy of mention is Bodrova, who focused on the role of imagination in the context of classroom instruction (Bodrova, 2018). Bodrova has argued that incorporating imaginative activities and play into classroom instruction can support the development of children's cognitive abilities, language skills, and creativity (Bodrova, 2018). She also emphasised the importance of teachers providing a rich and stimulating environment that encourages children's imagination and the role of parents in supporting their children's imagination through interactive activities and storytelling (Bodrova, 2018).

Vygotsky's theory of imagination has had a profound impact on the field of psychology and education. His followers have made significant contributions to our understanding of the role of imagination in cognitive development by emphasising the importance of imagination in the development of higher mental functions, the role of imagination in the process of learning and in the development of collective memory and cultural heritage.

### 3.6. Chapter Summary

The chapter examined various theories of child development and imagination centring on Vygotsky to provide an in-depth analysis of different perspectives on how the child's imagination develops and the role of visualisation in this process. These theories have highlighted the importance of various factors such as the child's behaviour, innate and immanent structures of the phenomenal field, and the influence of the adult world on the child's imagination.

Vygotsky's ideas continue to be relevant in current research and contribute to the understanding of child development and imagination. He emphasised the importance of the child's social and cultural environment in the development of imagination and how it is a dynamic and multifaceted process that is influenced by a variety of factors. His work also highlighted the role of play in the development of imagination and how it serves as a preparatory stage for artistic creativity.

Other theories discussed in the chapter include Kant's perspective on the imagination, which argues that it has two components: one obtained from experience and the other pre-experimental (a priori), based on a person's initial ideas about space and time. Another viewpoint represented by Ilyenkov is that the traditional understanding of imagination reflects only its derivative function. It allows you to see what lies in front

of your eyes, so the main function of the imagination is to convert an optical phenomenon on the surface of the retina into an image of an external thing.

Furthermore, the chapter also discussed the perspective of Sartre, who believed that imagination is a necessary condition for the existence of the human mind, allowing us to overcome the framework of our own personality and specific life circumstances and become aware of ourselves as part of the whole - humanity, outer space, space, and time. Jung's view is also important to be mentioned, and he believed that the imagination is based on the collective unconscious - a set of extremely generalised symbols, images and ideas that are common to all people, regardless of era, level of education and personality traits.

Overall, the chapter showed that theories of child development and imagination are complex and multifaceted, and they offer different perspectives on how the child's imagination develops and how visualisation plays a role in this process. The theories also highlighted the importance of factors such as the child's behaviour, innate and immanent structures of the phenomenal field, and the influence of the adult world on the child's imagination.

#### CHAPTER 4. VYGOTSKY'S THEORY OF IMAGINATION

#### 4.1. Introduction

We are now in a position to provide a final account of Vygtosky's approach and, from this extract, a model expressing Vygotsky's theory of imagination as four developmental stages. We begin by pulling together the many threads from the discussion above to provide a frame for the reification and explanation of Vygotsky's ideas. As the reader will recall, in Chapter 2, we gave an overview of the literature detailing the significance of imagination in creativity, problem-solving, and decisionmaking is highlighted, along with the importance of the environment and social interactions in shaping a child's imagination. In Chapter 3, the focus shifted to researchers who had adopted and or extended many of Vygotsky's ideas. Now in this chapter, the intricate connections made previously between imagination, memory, thinking, speech, and feelings are drawn together to provide context for an in-depth exploration of Vygotsky's theory. The four stage model that is then provided fulfils one aim of this research, which is to provide a theoretical framework based on Vygotsky's theory of imagination in order to create a testable pedagogical model. In the remainder of the thesis, this model will then be tested by collecting and analysing data from primary school students, teachers, and parents.

# **4.2.** Understanding Vygotsky's Theory of Imagination and Its Practical Implications for Educators and Parents

As a researcher, I appreciate Vygotsky's emphasis on the role of memory in imagination formation and how imagination relies on memory to place data in new combinations in all four types of connections. Vygotsky makes a call for expanding a child's experience to support the development of their imagination and has practical implications for educators and parents. While his theory of imagination is a valuable theoretical framework, it is not without criticisms and limitations. Although the model developed in this chapter is primarily drawn from Vygotsky's writings, I recognise the need to continue exploring and expanding upon Vygotsky's ideas to gain a comprehensive understanding of the complex processes involved in imagination formation. It is hoped such an expansion has been achieved in the account given below.

In his theory of imagination, Vygotsky (1966/2022) pointed out that creative activity develops gradually, evolving from simpler forms to more complex ones and that it takes on different forms during different periods of childhood. He identified four main stages of connections between the activities of imagination and reality.

The first stage of connection is where the product of the imagination arises as an expression of elements drawn from personal experience and from the real surrounding world. The examples provided by Vygotsky (1966/2022) in his theory of imagination, such as the hut on chicken legs, a mermaid, and a learned cat speaking in a fairy tale, are impressive because they demonstrate how even the most fantastical creatures can be traced back to elements of personal experience and memory. These examples are drawn from scientific analysis of structures such as dreams, legends, myths, and tales, and they reveal that the most imaginative creations are often a new combination of elements drawn from reality and subjected to distorting or processing activities of the imagination.

According to Vygotsky (1966/2022), imagination is able to create new combinations, combining first the primary real elements (existing animals such as a dog, a hare, a mouse), then the images of fantasy (fictional characters such as a mermaid, a goblin). The last elements that make up the most distant fantasy from realityremain, in some way, impressions of reality. This means that even the most remote andfantastic elements of an individual's imagination will always be based on some elementsof reality, whether it be a vague impression, a memory, or an experience. In other words, our imagination may be able to combine and create new ideas that are far removed fromour real-life experiences, but they will always be built upon some foundation of reality, whether consciously or subconsciously.

As has been discussed, Vygotsky (1966/2022) believed that imagination develops from simpler to more complex forms and that it evolves during different stages of childhood. He also believed that each object of imagination is based on elements drawn from personal experiences and the real surrounding world. Therefore, even the most fantastic elements of imagination are rooted in the real world, and this statement emphasises the importance of experiences and memories in the development of imagination.

Vygotsky (1966/2022) also proposed that past experiences serve as the foundation for one's dreams and that the creativity of the imagination is directly correlated to the depth and variety of one's experience. Therefore, a person's imagination has access to more material the more varied their experience. This is why,

despite a child's seeming external prosperity, their imagination may be worse than that of an adult. This means that the more diverse and varied experiences an individual has, the more material they have to draw upon when using their imagination. This is because experiences provide individuals with a broader range of memories, emotions, and knowledge that can be used as a foundation for their imagination. For example, if an individual has travelled to different countries, learned new languages, or engaged in a variety of hobbies, they are likely to have a wider range of experiences that can inform their imagination. On the other hand, a child who has not yet had the opportunity to experience diverse environments and situations may have a limited pool of experiences to draw from, which can limit the range and depth of their imagination.

Therefore, despite a child's apparent external prosperity, their imagination may be less developed than that of an adult who has had a wider range of experiences. This statement underscores the importance of providing children with opportunities to explore different environments and situations, which can help broaden their experiences and enhance their imagination.

Vygotsky (1966/2022) concluded that expanding the child's experience is vital to establish a strong basis for the child's creative endeavours. He emphasised that combining activity is only a further complication of conservation activity and that imagination relies on memory, placing its data in new combinations in all four stages. Through Vygotsky's identification of the four stages of connections between imagination and reality, one can understand how even the most fantastical creatures can be traced back to elements of personal experience and memory. Furthermore, this recognises the importance of expanding a child's experience, as it serves as a foundation for their imaginative endeavours. Vygotsky's theory appreciates the intricate interplay between imagination, memory, and personal experience and its significance in shaping an individual's creative abilities. Overall, Vygotsky's theory of imagination provides one with valuable insights into the complex nature of imagination formation and its practical implications for educators and parents. Next, we commence detailing the first of the four stages of Vygotsky's understanding of the imagination expression.

# **4.2.1.** The Reproductive Imagination: Understanding the First Stage of Vygotsky's Theory of Imagination

The reproductive imagination, as identified by Vygotsky (1966/2022), is a fundamental stage of imagination that plays an important role in the cognitive and linguistic

development of children, serving as a foundation for creating more complex images and allowing them to make sense of their surroundings. Additionally, the ability to reproduce images also plays an important role in adults' lives, allowing them to think creatively and come up with new ideas. Vygotsky's emphasis on the role of memory in the reproductive imagination highlights the connection between memory and cognitive development, which is a critical aspect of this research. The idea that children first learn to reproduce simple images and then gradually develop the ability to create more complex images is particularly intriguing, as it suggests that the reproductive imagination serves as a foundation for other types of imagination.

Additionally, Vygotsky's assertion that the reproductive imagination plays an important role in language and communication underscores the need to consider the social and emotional aspects of cognitive development. The fact that the reproductive imagination is not limited to childhood but also plays an important role in adult life has implications for fields such as art, design, and engineering. Vygotsky (1966/2022) noted that the reproductive imagination is the ability to reproduce or recreate images from past experiences and is closely related to memory. The child's ability to reproduceimages from memory is an essential aspect of their cognitive development as it allowsthem to make connections between past experiences and new information. This refers to the role of the reproductive imagination in adult life and its relationship to memory and cognitive development. Vygotsky (1966/2022) identified the reproductive imagination as a fundamental stage of imagination that is present in early childhood and remains important throughout the lifespan. This stage of imagination is not limited to visual images but also includes auditory, tactile, and other sensory images.

As children grow and develop, their reproductive imagination becomes more complex and nuanced, allowing them to use their memories in more creative and sophisticated ways. In adulthood, the reproductive imagination remains important for creative thinking and problem-solving. By drawing on past experiences and memories, individuals can come up with new and innovative ideas that build upon what they have learned in the past. Therefore, the reproductive imagination is a key aspect of cognitive development and plays an important role in both childhood and adulthood.

Also, Vygotsky (1966/2022) emphasised that the reproductive imagination plays an important role in the development of language and communication. The ability to reproduce images from memory allows children to use words to describe and communicate their thoughts and experiences and can help to improve language learning by providing a visual tool for remembering new words and concepts. For example, a

person learning a new language may create mental images of objects and associate them with the corresponding vocabulary words in order to improve their retention and recall of new words. This stage of imagination has a close correlation to the development of memory and attention, as it allows children to pay attention to specific details and retain them in their memory. When children reproduce images from memory, they can use words to describe and communicate their thoughts and experiences. This means that the child's ability to reproduce images from memory is fundamental to their ability to express themselves through language, which is essential to social and emotional development. Additionally, the reproductive imagination helps children develop their memory and attention by allowing them to pay attention to specific details and retain them in their memory. As a result, the reproductive imagination is a critical component of a child's cognitive, linguistic, and social-emotional development.

According to Vygotsky (1966/2022), the reproductive imagination is closely related to memory, as it relies on stored experiences and knowledge to create new images. The child's ability to reproduce images is also closely connected to their ability to classify, compare, and generalise different elements in the environment. Thus, Vygotsky (1966/2022) argued that reproductive imagination plays an important role in the child's cognitive development, as it allows them to understand and make sense of their surroundings. For example, a child who has never seen a dog before might not be able to imagine what a dog looks like. However, if the child has seen a picture of a dog or been told about dogs by someone else, they can use their reproductive imagination to create an image of a dog in their mind.

Furthermore, the ability to classify different elements in the environment is also closely related to the reproductive imagination. For instance, a child who has seen different types of dogs, such as a Poodle and a German shepherd, can use their reproductive imagination to compare and generalise the similarities and differences between the two breeds.

Fundamentally, Vygotsky (1966/2022) stated that reproductive imagination is the basis for the development of other stages of imagination, as it serves as a foundation for creating more complex images. Children first learn to reproduce simple images and then gradually develop the ability to create more complex images by combining and transforming the elements they already know. For instance, a child may first learn to reproduce an image of a dog from their memory and then gradually develop the ability to create more complex images by combining the elements they already know. They may imagine a dog with wings or a dog that can talk by transforming and combining

the elements they have learned about dogs and other creatures. Similarly, a child may start by reproducing a simple image of a house and then develop the ability to create more complex images by combining and transforming elements they already know, such as imagining a treehouse, or a house made of candy. Through this process of combining and transforming elements, children develop their creative thinking and imagination, building on their foundation of reproductive imagination.

The ability to reproduce images from memory is essential for creative thinking and problem-solving in various fields such as art, design, and engineering. Such as an architect may use their memory of past designs to create a new and innovative building design. A furniture designer may recall a previous design and modify it to create a new piece of furniture. Additionally, the reproductive imagination can also play a role in personal and social contexts, such as when an individual uses their memory to recall past experiences or to visualise future possibilities.

In conclusion, the reproductive imagination is a fundamental stage of imagination that plays a critical role in the cognitive, linguistic, and social-emotional development of children, serving as a foundation for creating more complex images and allowing them to understand and make sense of their surroundings. The ability to reproduce images from memory is also essential for creative thinking and problemsolving in adulthood, as individuals draw on past experiences and memories to come up with new and innovative ideas. The reproductive imagination is closely related to memory and the ability to classify, compare, and generalise different elements in the environment, which allows individuals to build upon their knowledge and experiences. Ultimately, the reproductive imagination is a key aspect of both childhood and adulthood, playing an important role in various fields such as art, design, and engineering, as well as in personal and social contexts.

# 4.2.2. The Expression of Experience: Understanding the Second Stage of Vygotsky's Theory of Imagination

In the previous section, we explored the first stage of imagination, which is based on personal experience and the real surrounding world. In this section, we will examine the second stage of imagination, called the expression of experience, which includes personal experiences and emotions which often arise in imaginative play or makebelieve. This second stage of imagination allows individuals to create new and imaginative scenarios that help us understand and make sense of the world around us.

Imaginative play involves the use of imagination and creativity to create and explore new situations and scenarios in a safe and supportive environment. In simpler terms, imaginative play allows children to draw upon their personal experiences and emotions to create and explore new scenarios in a way that is both safe and supported.

This connection between the second stage of imagination and imaginative play is significant because both promote cognitive, emotional, and social development in children. Imaginative play supports cognitive development by allowing children to explore and understand the world around them in a safe and creative way and encourages children to communicate and collaborate with others in a fun and creative way. According to Vygotsky (1966/2022), imaginative play is a key aspect of children's development, allowing them to explore and understand their environment in a safe and creative way.

It is interesting to note that this second stage of imagination is not limited to just historical or factual events but can also include personal experiences and emotions. For example, we may use our imagination to relive a happy childhood memory or to imagine a future scenario in which we have achieved a personal goal. This stage of imagination allows individuals to process their experiences and emotions in a creative and meaningful way, contributing to the development of their emotional and cognitive abilities. Additionally, we believe that the expression of experience can include the ability to imagine future scenarios or possibilities, which allows for the exploration of different options and the ability to plan and prepare for potential outcomes. Vygotsky (1966/2022) believed that this stage of imagination is closely linked to the development of problem-solving skills and the ability to think critically.

The expression of experience also plays a crucial role in the development of language and communication. Children use their imagination to create mental images and scenarios, which they can then describe and share with others. This ability to express their experiences and thoughts through language is a key component of their cognitive development. For instance, a child may use their imagination to describe a recent family vacation to their friends or create a fictional story based on a personal experience. Through this process, children develop their language and communication abilities by learning to express themselves in new and creative ways. This ability to use language to convey their thoughts and experiences is a critical component of cognitive development and supports social and emotional growth as well. It is important to note that language and communication are essential components of all stages of imagination because they enable individuals to express and share their imaginative thoughts and

ideas with others. When individuals use their imagination to create mental images and scenarios, they often rely on language to describe and convey these images to others. This ability to communicate their imaginative thoughts and ideas is essential for the development of cognitive skills such as language comprehension and production, as well as for social skills such as collaboration and cooperation.

In children, the development of language and communication skills is closely tied to their imaginative play and expression of experience. Children often use their imaginative play as a means of communicating and expressing their thoughts and feelings to others. Through imaginative play, children learn to use language to describe and convey their imaginative scenarios, as well as to negotiate and cooperate with others in the creation of shared imaginary worlds.

Moreover, the expression of experience is not limited to children, as adults also use their imagination to express their thoughts, feelings, and experiences. For example, an author may use their imagination to create a fictional story that reflects their own experiences or emotions. A musician may use their imagination to compose a song that expresses their feelings or memories. Additionally, the expression of experience can also be used in therapy to help individuals process and cope with traumatic experiences or emotions. Through the use of imagination, individuals can create mental images and scenarios that allow them to explore and process their emotions in a safe and controlled environment.

Vygotsky (1966/2022) argued that the expression of experience is closely linked to the concept of inner speech, which is the ability to think and communicate with oneself. Inner speech allows individuals to reflect on their experiences and imagine new possibilities, which in turn allows them to make sense of the world around them and adapt to new situations. It is important to note that this connection between the expression of experience and inner speech is unique to this stage of imagination. The ability to reflect on personal experiences and imagine new possibilities is a crucial aspect of cognitive development, and the ability to communicate these thoughts and reflections through inner speech is a key component of this process. Therefore, the expression of experience and its connection to inner speech highlights the importance of language and communication in the development of imagination and cognitive skills. As an illustration, imagine a child who has just started school and is feeling overwhelmed by the new environment and routines. Through the use of inner speech, the child can reflect on their experiences, process their emotions, and imagine new possibilities. They might think to themselves, "I feel nervous right now, but I know I

can make new friends and learn new things. I can try my best and ask for help when I need it." By using their inner speech in this way, the child is able to adapt to the new situation and develop a more positive outlook on their experiences. As children develop their ability to use inner speech, they begin to use language more effectively in their external communication with others. For example, a child may use inner speech to plan out what they want to say before speaking out loud or to reflect on their thoughts and experiences. Inner speech is also important in problem-solving, as it allows individuals to mentally try out different solutions before making a decision or acting. Furthermore, the ability to use inner speech is a key aspect of cognitive development and plays an important role in language, communication, and problem-solving. By using their imagination and reflecting on their experiences, individuals can come up with new ideas and solutions to problems. For example, a scientist may use their inner speech to reflect on their research findings and imagine new ways to approach a problem. Athlete may use their inner speech to reflect on their past performances and imagine new strategies during their training.

In conclusion, the expression of experience is the second stage of Vygotsky's theory of the four stages of imagination and plays a critical role in cognitive, emotional, and social development. Children use their imagination to create mental images and scenarios, which they can express through language and share with others. This ability to use language to convey their thoughts and experiences is a critical component of cognitive development, supporting language acquisition and social and emotional growth. Inner speech, which is closely linked to the expression of experience, allows individuals to reflect on their experiences and imagine new possibilities, contributing to problem-solving skills, language development, and communication abilities. The importance of the expression of experience may be seen in many personal and professional contexts, including therapy, creative arts, and problem-solving. The expression of experience is one of the essential aspects of imagination that contributes to the development of individuals throughout their lifespans.

# **4.2.3.** The Emotional Reality: Understanding the Third Stage of Vygotsky's Theory of Imagination

In the previous sections, we explored the first two stages of imagination, which involve personal experience and the expression of experience, respectively. In this section, we delve into the third stage of imagination, which is the emotional reality. This stage of imagination is characterised by the emotional connection between the activity of reality and imagination, allowing individuals to embody emotions in images and select impressions, thoughts, and images that align with their current emotional state. As amplification of this stage, we include in the discussion the laws of double expression of feelings, common emotional signs, and emotional reality of imagination as identified by Vygotsky. We then discuss how this stage of imagination allows for the evocation of sensory experiences and the creation of internal worlds that can be used for self-expression, emotional regulation, and problem-solving.

This stage of imagination is characterised by the embodiment of emotions in images that correspond to a particular feeling, as well as the selection of impressions, thoughts, and images that align with one's current emotional state. When a person experiences a particular emotion, such as happiness or sadness, they may create mental images that embody that emotion, coming up with positive or peaceful scenarios such as walking outside in nature, whereas if someone feeling sad comes up with negative scenarios, they imagine sitting alone in a dark room. These mental images are a reflection of the person's emotional state and allow them to process and express their emotions in a creative and meaningful way. Similarly, a person may select certain images, thoughts, or impressions that align with their current emotional state. For instance, a person who is feeling anxious may be more likely to focus on negative or worrisome thoughts, while a person who is feeling confident may focus on positive and empowering thoughts. This type of imagination allows individuals to explore and express their emotions in a unique and personal way.

Vygotsky (1966/2022) described the law of double expression of feelings, which states that internal expression and language of emotions are represented by images that arise in the imagination. Vygotsky's law of double expression of feelings suggests that emotions can be expressed both internally and externally and that these two forms of expression are interconnected. Internal expression of emotions refers to the way we experience emotions within ourselves, while external expression refers to how we communicate those emotions to others. Vygotsky (1066/2022) proposed that the images that arise in our imagination serve as a bridge between these two forms of expression.

For example, imagine feeling sad about a recent breakup. Internally, you may experience a range of emotions, such as pain, loneliness, and heartache. However, you may not want to express these emotions outwardly. Instead, you may turn to your imagination and create mental images that embody those feelings, such as a dark,

stormy sky or a desolate landscape. By doing so, you are able to express those emotions in a way that feels safe and comfortable for you without having to communicate them to others directly.

Similarly, if you are feeling happy and joyful, you may create mental images of bright, colourful scenes or uplifting scenarios. These images can serve as a way to reinforce and amplify your positive emotions, both internally and externally. Overall, the law of double expression of feelings suggests that our imagination plays a fundamental role in how we experience and express our emotions.

Additionally, Vygotsky (1966/2022) identified the law of common emotional signs, which states that impressions or images with a common emotional sign tend to unite without any obvious connection by similarity or adjacency. The law of common emotional signs suggests that people tend to link different images, thoughts, and experiences together if they share a common emotional tone or theme, even if there is no obvious connection between them. For example, someone may associate the smell of freshly cut grass with a feeling of freedom and happiness because it reminds them of playing outside on warm summer days. Similarly, they may associate the sound of a train whistle with a feeling of melancholy because it reminds them of saying goodbye to a loved one who left on a train. In both cases, the emotional tone of the experience is what links the different images and impressions together in the person's mind, rather than any obvious similarity or connection between them.

Furthermore, Vygotsky (1966/2022) also discussed the law of emotional reality of the imagination, which states that the imagination can affect feelings, even when the construction of an image which does not exist in reality or does not correspond to it. The emotions caused by fantastic art images from books or theatrical performances are considered to be real and are deeply and seriously experienced, as the psychological basis of this is the expansion, deepening, and creative restructuring of feeling, allowing for an emotional involvement for a certain period of time. This means that the imagination has the power to affect a person's feelings and emotions and can provide a way to explore and process emotions in a safe and creative way. For example, a person may read a novel or watch a play that portrays a character experiencing a similar emotional situation to their own. Although the story may be fictional, the emotions and feelings that are evoked can be very real and can help the person to better understand and process their own emotions. Additionally, the imagination can be used to create an emotional reality that does not exist in the physical world, such as the feeling of flying or the sensation of weightlessness.

This stage of imagination also encompasses the evocation of sensory experiences such as sounds, smells, and tastes. For example, the sound of a waterfall may evoke feelings of serenity and peace, while the smell of freshly baked bread may evoke feelings of comfort and warmth. Another example is the sound of waves crashing on the shore can evoke feelings of relaxation and calmness, while the smell of freshly cut grass can bring up memories of playing outdoors during childhood. A person may use their imagination to evoke these sensory experiences and associated emotions even when they are not physically present in that environment. For instance, they may close their eyes and imagine the sound of waves crashing or the smell of fresh-cut grass to help them relax and feel more at ease. This ability to evoke sensory experiences and emotions through imagination can also be used in therapeutic settings, such as visualisation techniques in psychotherapy to help individuals manage anxiety or depression. These sensory experiences also have a strong emotional connection to memory, as they can evoke memories of past experiences or emotions. This emotional reality of imagination allows for the creation of internal worlds that are not limited by the physical reality and can be used as a tool for self-expression, emotional regulation, and problem-solving.

In conclusion, the emotional reality of imagination is a complex and multifaceted aspect of the human experience. It involves the embodiment of emotions in images and the selection of impressions, thoughts, and images that align with one's emotional state. Vygotsky's laws of double expression of feelings, common emotional signs, and emotional reality of the imagination highlight the important role that imagination plays in our emotional lives. The ability to evoke sensory experiences and associated emotions through imagination allows for the creation of internal worlds that can be used for self-expression, emotional regulation, and problem-solving. Whether it's through creating mental images that embody our emotions, linking different images and impressions based on a shared emotional tone, or evoking sensory experiences through imagination, the emotional reality of imagination provides a rich and powerful tool for understanding and navigating our emotions.

# **4.2.4.** The Crystallised Imagination: Understanding the Fourth Stage of Vygotsky's Theory of Imagination

This stage of imagination involves the creation of tangible objects that exist in reality through the transformation of their existing elements. Vygotsky (1966/2022) argues

that this stage of imagination leads to the awakening of creativity and innovation and is driven by both thought and feeling. We found this insight to be particularly interesting as it highlights the involvement of both intellectual and emotional factors in the act of creativity.

It was interesting to ponder on the development cycle that products of imagination go through, where elements from reality undergo complex processing and become products of imagination, which are then embodied and returned as a new active force that may alter reality. This cycle highlights the impact of imagination on the world and the completion of the creative activity of the imagination. This stage of imagination involves the creation of something new by transforming existing elements, a process that Vygotsky (1966/2022) argues leads to the awakening of creativity and innovation. The resulting image begins to interact with other objects in reality. Several examples may more aptly illustrate this concept. The first example is the development of electric cars, which involves the transformation of existing car designs and the incorporation of new technology to create a more sustainable and environmentally friendly mode of transportation. The creation of smartphones is another example of imagination embodied in a tangible object, as they represent a combination of existing technologies such as cameras, touchscreens, and wireless communication, along with new innovations in software and hardware design. The fashion industry is another area replete with examples of where imagination is embodied in tangible objects, with designers creating new garments by combining existing fabrics and styles in innovative ways. These examples demonstrate how the fourth stage of imagination involves the transformation of existing elements to create something new and innovative that has an impact on the world around us.

Furthermore, Vygotsky (1966/2022) notes that these products of imagination go through a development cycle, where elements from reality undergo complex processing and become products of imagination, which are then embodied and returned as a new active force that alters reality. This cycle highlights the involvement of both intellectual and emotional factors in the act of creativity, as the imagination is driven by both thought and feeling, with thought giving form to the feeling. An example of this development cycle of imagination can be seen in the process of creating a newinvention. A person might take an existing object, such as a bicycle, and imagine waysto improve it or make it more efficient. They might imagine different designs or new technologies to incorporate into the existing object. As they work through this process, they combine both intellectual and emotional factors, using their knowledge and

expertise to develop new ideas while also being driven by a desire to innovate and create something new. Eventually, the product of their imagination is realised, and the new invention becomes a tangible object that interacts with other objects in reality, altering the way people live their lives.

Another example would be the creation of a work of art, such as a painting. An artist may start with a blank canvas and imagine a scene or image they want to create. As they work on the painting, they are constantly processing and refining their imagination, combining intellectual and emotional factors as they use their technical skills to bring the image to life. The finished product of their imagination is a tangible work of art that can be seen, touched, and interacted with, altering the way people perceive and understand the world around them. Such a work of art stands in contrast to a mere work of reproduction, where it is technique and skill to reproduce that drives expression rather than imaginative intent.

Vygotsky (1966/2022) also argues that works of art at the crystallised level can influence the public consciousness by virtue of their own internal logic. Fantasy images are combined according to this internal logic rather than by chance, as in dreams. This is due to the connection established by the work between its own internal logic and the external world. One example of this idea can be seen in the works of surrealist artists such as Salvador Dali, who combined seemingly unrelated images in a way that created a new and cohesive reality. In his famous painting "The Persistence of Memory," Dali combines elements such as melting clocks and ants to create a dreamlike and surreal image that challenges the viewer's perception of reality. This internal logic established by Dali's work not only influences the public consciousness but also provides a new perspective on the world around us.

Another example is the works of author George Orwell, specifically his novel "1984." The internal logic of the novel creates a dystopian world where the government controls every aspect of citizens' lives, leading to a loss of freedom and individuality. The novel's influence on the public consciousness has been significant, with phrases such as "Big Brother is watching you" entering common usage and discussions of surveillance and government control becoming more prevalent.

Finally, the music of artists like Bob Dylan and John Lennon can also be seen as examples of the influence of works of art on the public consciousness. Their lyrics and music often addressed political and social issues, influencing the way people thought and felt about these topics. Their internal logic, combined with their artistic expression, created a powerful and lasting impact on the public consciousness.

Vygotsky (1966/2022) also notes that distant and seemingly unrelated features are often combined in fiction but are connected by an internal logic. When imagination crystallises and enters the world, it begins to have an impact on other things. This marks the completion of the creative activity of the imagination and is possible for both subjective imaginations based on emotions and objective imagination. One example of the combination of distant and seemingly unrelated features is the character of Dr Frankenstein's monster in Mary Shelley's "Frankenstein." The creature is composed of different parts of dead bodies, which are seemingly unrelated but are combined by an internal logic to create a terrifying and thought-provoking character. A further example is the film "Eternal Sunshine of the Spotless Mind," which combines the concept of memory erasure with a romantic comedy plotline. While these two concepts may seem unrelated at first, they are connected by the internal logic of the film, which explores the nature of memory and its impact on relationships.

When imagination crystallises and enters the world, it can have a significant impact on other things. For example, the creation of the automobile revolutionised transportation and transformed the world's economy and social structure. Similarly, the invention of the internet has transformed the way we communicate, access information, and conduct business. These are just a few examples of how imagination, when materialised, can have a transformative effect on the world around us.

Vygotsky (1966/2022) includes acts of imagination in the intellectual sphere as potentially of crystallised form. One such example is the character of Sherlock Holmes, created by Conan Doyle, which showcases the author's imagination in the creation of a detective with exceptional analytical skills. Another example is the architectural masterpiece of the Taj Mahal, which represents the imagination of the Mughal Emperor in creating a mausoleum for his beloved wife. Alexander Graham Bell's invention of the telephone exemplifies the fourth stage of imagination by showcasing the creative connection between sound waves and electricalwaves. At the core of this invention is the innovative concept of converting acoustic energy (sound waves) into electrical energy (electrical waves) and then back into acoustic energy at the receiving end. This transformative idea facilitated the transmission of human speech over long distances, revolutionising the field of communication.

To understand this connection, it is essential to recognise the basic principles of sound and electrical waves. Sound waves are mechanical vibrations that travel through a medium, such as air, as longitudinal waves. They are created when an object vibrates,

causing the surrounding particles to move back and forth in a wave-like motion. Electrical waves, on the other hand, are fluctuations in electric and magnetic fields that propagate through space. These waves carry energy and can transmit information through various mediums. Bell's invention of the telephone ingeniously linked these two types of waves by using a microphone to convert the mechanical energy of sound waves into electrical energy. When someone speaks into the microphone, the sound waves created by their voice cause a diaphragm to vibrate. This vibration is then transferred to an electromagnet, which generates an electrical current that corresponds to the pattern of the sound waves. This electrical current, or electrical wave, travels along a wire to the receiving end of the telephone line. At the receiving end, a speaker, or earpiece, converts the electrical wave back into sound waves. The electrical current passes through an electromagnet, causing a diaphragm in the speaker to vibrate in accordance with the electrical wave's pattern. This vibration generates sound waves that replicate the original speech, allowing the listener to hear the transmitted message. Alexander Graham Bell's imaginative insight into the conversion of acoustic energy into electrical energy and back again has had a profound impact on the field of communication, forever changing the way people interact with one another.

Another example is the creation of the personal computer, which has transformed the way we work and communicate in the modern world. The imagination of pioneers such as Alan Turing, John von Neumann, and Grace Hopper led to the creation of user-friendly interfaces and software that allowed people to interact with computers in a simple and intuitive way. In the field of literature, J.R.R. Tolkien's imaginative world-building in "The Lord of the Rings" series has influenced generations of writers and readers, creating a lasting impact on the fantasy genre. Similarly, George Lucas' imagination and vision for the "Star Wars" franchise has inspired countless films and stories, creating a cultural phenomenon that continues to captivate audiences.

In the world of art, the imagination of artists such as Leonardo da Vinci and Vincent van Gogh has left an indelible mark on history. Da Vinci's inventions and artwork showcase his unique imagination and problem-solving abilities, while Van Gogh's use of colour and expressionism reflect his emotional and imaginative vision.

Furthermore, the connection between imagination and technology can also be observed through the development of flying machines. The image of a flying machine, which was first imagined by science fiction writers in the 1920s, was eventually brought to reality by Robert Fulton in 1946 and, more recently, by companies such as Uber

Elerale that are currently developing air taxis. The movie "The Fifth Element", created by Luke Besson, serves as an example of the complete cycle of imagination, from the initial image to its materialisation and subsequent symbolisation in the entertainment industry. In a science fiction landscape inspired by the ancient Egyptian concept of the four elements — Earth, Water, Air, and Fire — a story unfolds that intricately weaves these elements with a mysterious and powerful fifth element known as the Quintessence. This narrative draws upon the rich symbolism of ancient Egyptian mythology while also reflecting the imaginative prowess of contemporary storytelling. Through the integration of ancient Egyptian ideas, modern cinematic storytelling, and the subversion of traditional archetypes, this science fiction landscape creates a rich and captivating narrative that pays homage to the past while envisioning a future defined by unity, collaboration, and the limitless power of imagination.

In addition to the development of flying machines, there are numerous other examples of the connection between imagination and technology. For instance, the concept of virtual reality, which was once considered a far-fetched idea, has now become a reality with the development of advanced technology. Similarly, self-driving cars, which were once only seen in science fiction movies, are now being developed and tested by major automobile manufacturers. The concept of artificial intelligence, which involves creating intelligent machines that can perform tasks without human intervention, is another example of how imagination can lead to technological advancements. In the entertainment industry, the development of computer-generated imagery (CGI) has allowed filmmakers to create realistic and fantastical worlds that were once impossible to visualise. These examples showcase how imagination can inspire technological innovation and push the boundaries of what is possible.

In the realm of fine arts, imagination can also be crystallised through various forms of artistic expression. For instance, a sculpture is a work of art created by a sculptor using materials like stone, metal, or wood to bring their imagination to life. Similarly, an architect designs and engineers a building, such as a skyscraper, to bring their vision of what a building should look like and serve as to reality. Painters take their vision and use colours and brushstrokes to create a visual representation, capturing their imagination on canvas. Gardeners arrange flowers, plants, and other natural elements to create a harmonious and beautiful outdoor space, bringing their imagination of a perfect garden to life. Musicians write and perform a piece of music, using melody, lyrics, and rhythm to express their imagination and emotions in a musical form. In addition to the examples mentioned above, there are many other ways in which

imagination can be crystallised into physical or artistic forms. For instance, authors create novels, short stories, and poetry that bring their imaginative worlds and characters to life. Filmmakers use their imagination to conceive and execute the visual and narrative elements of movies, from the script to the cinematography and special effects. Graphic designers use their creativity to design logos, posters, and other visual media that communicate ideas and messages. Product designers use their imagination to design and develop new products, from furniture to electronics. Chefs use their creativity to invent new dishes and combine flavours in innovative ways, bringing their imagination to life on the plate. The possibilities for imagination to be embodied in tangible objects are endless, and each creation is a unique expression of the imagination of the creator.

Overall, all the examples demonstrate how the imagination can lead to breakthroughs in technology, art, and literature, shaping our world and expanding the boundaries of what is possible. The fourth stage of imagination, which involves the embodiment of imagination in tangible objects and its existence in reality, offers a particularly fascinating avenue for exploring the impact of imagination on the world. The development cycle of imagination, where elements from reality undergo complex processing and become products of imagination, which are then embodied and alter reality, highlights the transformative power of the creative process. The examples discussed in this section illustrate how imagination can lead to breakthroughs in technology, art, and literature, shaping our world and expanding the boundaries of what is possible. The possibilities for imagination to be embodied in tangible objects are endless, and each creation is a unique expression of the imagination of the creator.

As it can be seen in Figure 1. bellow:

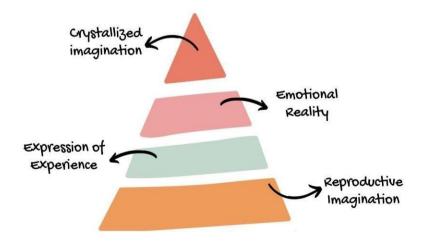


Figure 1. Hierarchy of Vygotsky's four stages of imagination.

The hierarchy of the four stages of imagination, drawn from the above discussion, can be summarised as follows:

Reproductive Imagination: This stage of imagination involves the ability to recreate images or scenes based on memories or prior experiences. It enables individuals to revisit past events and mentally reconstruct them with varying degrees of accuracy.

Expression of Experience: This stage of imagination allows individuals to envision future scenarios or potential outcomes by drawing upon their past experiences. It helps in anticipating possible situations and adapting to new circumstances by considering the lessons learned from previous encounters.

Emotional Reality: This stage of imagination focuses on the emotional link between reality and the imagination. It allows individuals to infuse emotions into images and select impressions, thoughts, and visuals that align with their present emotional state. This connection helps in creating emotionally resonant experiences and facilitates a deeper understanding of one's own feelings and those of others.

Crystallised Imagination: The highest stage of imagination involves the creation of tangible objects or concepts in reality by transforming and reconfiguring existing elements. This process enables individuals to bring their imaginative ideas to life, resulting in innovative solutions, artistic expressions, and groundbreaking inventions.

#### 4.3. Chapter Summary

In conclusion, Vygotsky's theory of imagination is a critical contribution to the understanding of the developmental stages of imagination and the practical implications for educators and parents. This chapter underscores the relevance of Vygotsky's theory of imagination in the fields of psychology and education. It emphasises the need for educators and parents to create opportunities for children to explore different

environments and situations, broaden their experiences, and enhance their imagination.

According to the primary focus of this research to consolidate Vygotsky's theory of imagination into a practical four stage model and assess its accuracy and reliability in relation to the imaginative expressions of year 5 primary school students, a thorough literature review was conducted first in Chapter 2, critically examining the various approaches to the development of imagination and then in Chapter 3 establishing a contextual foundation for Vygotsky's work on the imagination. By this conjunction of

Vygotsky's key writings, alongside a comprehensive analysis of imagination and its role in cognitive development both from a broader and more focused viewpoint(Chapters 2 and 3, respectively), we now have situated our resulting formulation of a four-stage model of imagination in this chapter.

This four-stage model, consisting of reproductive imagination, expression of experience, emotional reality, and crystallised imagination, provides a framework for understanding the complex interplay between imagination and reality. It highlights the significance of personal experiences, memory, language, and emotions in the growth of imagination and underscores the impact of imagination on creativity, innovation, and art. Moreover, it emphasises the importance of creating opportunities for children to explore different environments, broaden their experiences, and enhance their imagination. As learners progress from one stage to another, certain foundational aspects are retained, forming a scaffold for further development. These foundational elements often serve as building blocks, providing a stable base upon which new skills and understandings are constructed.

However, simultaneous to this preservation, there is a process of transformation where previous conceptualisations are modified, expanded, or even reinterpreted. This transformative aspect is essential for cognitive growth, allowing learners to adapt their existing knowledge and skills to more complex and diverse contexts. While some elements are retained, the dynamic interplay of preservation and transformation ensures a continuous evolution of cognitive abilities and understanding.

In the remainder of this thesis, we will test the practical usefulness of this four-stage model through its application with the imaginative product of selected Year 5 primary school students. The primary aim is to test whether the model is an effective tool to categorise a range of imaginative products. To this end, it was desirable that the data obtained would fall across all four stages of the model. This is, in part, why Year 5 students were chosen. It was anticipated that this age, as a group, they would be at something of a developmental sweet spot, so to speak, where a large enough cohort would evidence materials spread across all four stages. Younger children's products would skew to categories 1 & 2, whilst older children's to categories 3 & 4. Another aim of the study was to explore the factors that may influence their imaginative expression. Thus, data was also obtained concerning their home and school environments by gathering data from their parents and from their teachers. Please note this is not a longitudinal study, and so any direct exploration of a single child's imagination developing sequentially through the four stages of the model over time was

not possible to be made.

#### **CHAPTER 5: METHODOLOGY AND RESEARCH METHODS**

#### 5.1. Introduction

In this chapter, the methods used to test the four stage model are outlined. The choice of participants to test the model is not straightforward. After much consideration, it was decided to test against the product of Year 5 (10-year-old) Primary school students. As mentioned above, this was done primarily because it was expected a cohort from this age of student would likely provide a range of expression across all four stages. Younger students would be unlikely to evidence any product at the higher fourth stage, and older students or adults would likely express it at the higher stages only. Thus, it was hoped there would be something like a developmental sweet spot at 10 years of age that would allow for testability across all four stages. Additionally, at this age, students are highly receptive to influences from their home life and educational interventions, making it an opportune moment to examine the developmental influences from the social sphere. Therefore, the research involved three distinct groups: students, parents, and teachers.

The next question to answer was what product would be the most effective to ascertain the expression of the participants' imagination. Something naturally creative and appealing to the students was sought. It was desirable that their expression be both in the picture and in written form and that it offer a rich stimulus to motivate imaginative expression. After searching the literature, it was decided they would first do a drawing to create a unique character, a non-existent animal.' From this animal, they would then write a fairy tale narrating some adventure that centred on this animal.

The decision to have students first engage in drawing activities followed by composing fairy tales was deliberate and purposeful. Drawing serves as a visual representation of a student's imagination, allowing us to observe their creative and cognitive processes in a tangible form. By analysing their drawings, we can gain insights into their conceptualisation, symbolic representation, and the visual elements they associate with their imaginative ideas.

Subsequently, the task of composing fairy tales builds upon the foundation laid by the drawings. It requires students to further develop their imaginative narratives, incorporate characters and settings, and articulate their ideas in written form. This activity allows us to explore the linguistic and narrative aspects of their imagination, providing a deeper understanding of how they express their imaginative thoughts through storytelling.

By combining these two activities, we aim to capture different dimensions of imagination, encompassing both visual and verbal aspects. This dual approach enhances the richness of data collected, enabling a more comprehensive analysis of students' imaginative abilities and the developmental trajectory of their imagination. In the comprehensive evaluation of students' drawings and fairy tales, a multifaceted process will unfold, revealing the nature of students' imaginative expressions. Guided by Vygotsky's theory of imagination and a model of four stages created by the researcher, the meticulous examination of these creative endeavours will demand a profound understanding of their subtle nuances and the fluid boundaries between distinct imaginative stages. The initial classification of drawings into two primary groups, encompassing both established characters and entirely original compositions, will mark the commencement of a rigorous analysis. Subsequent rounds of scrutiny will bring forth the complexities of imagination, necessitating the reassignment of select works based on their nuanced features. Within the first group, a further division will occur, distinguishing between direct reproductions of existing imagery and compositions embodying modified or amalgamated elements, indicating the fusion of personal experiences and familiar elements. Simultaneously, the categorisation of students' fairy tales will mirror this intricate process. The initial broad grouping into tales echoing known storylines and those crafting entirely new narratives will lay the foundation for a profound exploration. Subsequent analyses will uncover the subtle influences of familiar tales in seemingly original narratives, prompting thoughtful revaluations and reassignments. Within the tales closely mirroring existing narratives, a distinction will emerge between those faithfully echoing established plots and those interweaving modified elements, showcasing the integration of personal experiences and creative storytelling.

This layered approach, capturing emotional depth and narrative complexity, will serve as the cornerstone for further categorisation. Tales resonating with profound emotional reality will find their place within the Emotional Reality stage, while those displaying an extraordinary fusion of elements and vivid imagination will be classified under Crystallised Imagination. Navigating these complex analyses will require thoughtful adjustments and iterative refinement. Engaging in discussions with the supervisor, these deliberative processes will ensure the alignment of the students' work with the predefined conceptual framework. The inherent challenges of this task will demand a flexible and exploratory analytical approach, emphasising the importance of

adapting methodologies to the nuances of students' imagination expressions. This methodological journey, marked by careful consideration and openness to the unpredictable nature of imagination, will underscore the intricate balance between structured categorisation and the unique pathways of each student's imaginative voyage.

To provide insights into the environmental factors contributing to the stage of development in the imagination of the participants, semi-structured interviews were carried out with their teachers, and an open-ended questionnaire was given to parents and caregivers. By seating the imagination product of the participants within the homelife and school-life contexts, it was anticipated that some of the social factors might become apparent that Vygotsky argued influenced the development of a child's imagination.

### 5.2.1. Data Set 1: Non-Verbal Communication in the "Non-existent Animal" Technique in Exploring Imagination

The first data set collected from the participants in this study involved the administration of the "Non-existent animal" drawing test (Data Set 1), which is a well-established graphic projective technique developed by Dukarevich (Musichenko, 2014). The utilisation of projective picture methods, such as this technique, has a long-standing history predating the field of socionics itself. Reed, an English art critic, was the first to successfully implement this approach by analysing a large number of children's drawings on a free topic and categorising them into eight types comparable to those outlined by Carl Jung (Romanova, 2001).

The use of the "Non-existent animal" projective test in this research is grounded in the theory of psychomotor communication. This approach examines the registration of psychomotor states, particularly the movement patterns observed in the drawings produced by the dominant right hand. According to Sechenov, any mentalrepresentation is ultimately associated with movement, and any corresponding tendency related to that representation culminates in physical action (Dukarevich, 2006). In situations where a real movement or intention is not executed, a certain levelof energy tension is required in the corresponding muscle groups to carry out the response movement aligned with the idea or thought.

The "Non-existent animal" test employs a sheet of paper as a spatial model to capture the muscular state and spatial tendencies of the individual. The use of specific areas on the sheet is not solely indicative of the subject's emotional state but also reflects their perception of the past, present, and future. Furthermore, it is crucial to consider the hand used by the participant for writing, as it determines the predetermined direction of interpretation.

In its essence, the "Non-existent animal" test belongs to the category of projective techniques. While the analysis results can be presented in descriptive forms for statistical verification or standardisation purposes, it is typically employed as part of a battery research tool, requiring integration with other methods to provide a comprehensive understanding of the subject. In light of this, the second stage of this study was deemed fundamental and included the combination of the "Non-existent animal" test with other research methods.

Notably, the "Non-existent animal" technique used in this study offers extensive possibilities for self-expression and allows for the manifestation of projection mechanisms. By using a sheet of paper as a model of space, this test effectively captures the muscular state and spatial tendencies, thereby offering valuable insights into the emotional state of the participant and their temporal perception. While the "Non-existent animal" test is not typically utilised as the sole research method, it serves as a valuable tool when integrated with other methods within a battery research approach, as demonstrated in the second stage of this study.

#### 5.2.2. Data Set 2: Fairy Tales in Exploring Imagination

The subsequent phase of this study employed the "Composing a fairy tale" method to investigate the interplay between creativity, imagination, and emotions, drawing on Vygotsky's theoretical framework. The selection of fairy tales as a research tool for Data Set 2 was motivated by their potential to introduce children to the realm of human destinies and cultural heritage, aligning with Vygotsky's concept of the emotional reality of fantasy. Furthermore, the significance of a fairy tale based on the drawing created by each participant in the initial stage was emphasised as an individual manifestation of the student's imagination. As Vygotsky (1966/2022) asserted that the operation of imagination is intimately linked to the movement of the senses. He further posited that the integration of emotions and imaginative thinking allows children to

access the collective cultural wealth accumulated by humanity over time (Vygotsky, 1966/2022).

A fairy tale serves as a conduit to acquainting children with the complexities of human destinies and history, acting as a "golden key" for transformative and creative engagement with the world. Harris (2000) suggests that these fantastical narratives present a unique opportunity for children to immerse themselves in imaginative worlds, fostering their own creative thinking. Fairy tales, with their magical elements and vibrant characters, enable children to explore possibilities beyond the confines of everyday life. Through engagement with these stories, children can expand their imaginative capacities, and develop a holistic understanding of emotions, problemsolving, and social interactions. Moreover, the moral lessons embedded within fairy tales can contribute to children's cognitive and emotional development. As discussed in Chapter 4, Vygotsky (1966/2022) articulates the law of the emotional reality of imagination, asserting that regardless of whether the stimuli influencing the child are real or fictional, the accompanying emotions are always genuine. Vygotsky(1966/2022) also emphasised that a well-crafted fairy tale has the potential to enhance and nurture a child's emotional well-being. Furthermore, fairy tales facilitate an understanding of diverse cultures and beliefs, promoting tolerance and respect for diversity. The literature extensively documents the use of fairy tales in language learning, highlighting the positive impact on language skills, including vocabulary enrichment, sentence structure improvement, and comprehension enhancement (Montanari & Smith, 2018). The immersive and interactive nature of fairy tales creates acontext conducive to language acquisition, facilitating the retention of new information. Moreover, the presence of repetitive phrases and patterns in fairy tales aidsin the learning of language structures and the development of memory skills.

As previously mentioned, the initial phase of the study involved year 5 Primary school students drawing a non-existent animal and assigning it a name of Data Set 1. Subsequently, the students were tasked with composing a fairy tale that incorporated their non-existent animal, denoted as Data Set 2. The combined endeavour necessitated the utilisation of imagination to construct a narrative with a coherent beginning, middle, and end, thereby engaging not only creative thinking but also problem-solving skills.

### **5.2.3.** Data set 3: Exploring the Influence of Classroom Environment on Imagination. Teacher Interviews.

Interviews with primary school teachers are an essential component of this study, as they provide a valuable perspective on the child's educational environment. Through interviews with the student's teachers, insights are gained into not only the child's abilities but also their daily habits and inclinations may be observed. This information may provide a more comprehensive view of the factors influencing the development of the child's imagination.

The use of semi-structured interviews as a research tool has been widely recognised as a potent way to gain insight into educational issues. As Wilson (2012) points out, this type of interview allows for a "dialogue with the research participant", allowing them to express their opinions freely. This, in turn, can provide a more nuanced understanding of the factors that may be influencing the child's imaginative development.

Seidman (1997) also highlights the benefits of using interviews to understand educational issues. Semi-structured interviews allow researchers to gain insights into the experiences of people working in the field, including teachers. This can help to improve the interpretation of previously obtained data and provide a more comprehensive understanding of the factors that may be influencing the child's imaginative development.

Data Set 3 includes a list of interview questions (see Annexure K) and was developed with the aim of identifying the factors influencing the formation of the imagination of year 5 Primary school students and its subsequent development. These questions are designed to elicit responses from teachers about the child's daily routine, habits, preferences, and communication patterns in the classroom. Additionally, questions were asked about the types of activities and interactions that may be contributing to the child's imaginative development.

### 5.2.4. Data Set 4: Open-Ended Questionnaire to Understand home life effect upon Year 5 Primary School Students Through Parental Perspectives

The utilisation of open-ended questionnaires for parents has proven to be an effective approach to collecting data on the imaginative development of primary school children (Smith, 2019; Johnson et al., 2020). This method allows parents to share their personal

experiences and perspectives, providing valuable insights into the child's daily life and surroundings (Brown & Jones, 2018; Thompson, 2021). By encouraging parents to provide detailed descriptions of their child's routine, preferences, and habits, researchers can gain a more comprehensive understanding of the activities and interactions that may contribute to the child's imaginative development (Harrison et al., 2017; Lee, 2022).

In addition to examining specific aspects of the child's home life, such as their food, clothing, and entertainment preferences, the open-ended questions also provide an opportunity to explore communication patterns between parents and children (Johnson & Smith, 2016; Anderson & White, 2019). Previous research suggests that parental involvement and engagement play a significant role in the development of a child's imagination (Roberts, 2015; Clark & Davis, 2018). By asking parents to describe their interactions with their child and how often the child shares their thoughts and impressions, researchers hope to identify patterns that may have a direct impact on the child's imaginative development (Turner & Harris, 2020; Carter et al., 2021).

Moreover, the open-ended questions also allow for a more nuanced exploration of the child's interpretation and processing of their experiences (Garcia et al., 2019; Patel & Brown, 2020). By asking parents to describe their child's dreams, daily events, and impressions shared with them, researchers gain insight into the child's thought processes and how they make sense of the world around them (Reynolds & Miller, 2017; Williams & Thompson, 2022). This information is useful in identifying factors that may influence the child's imaginative development, such as exposure to certain types of media or engagement in specific activities (Davis et al., 2018; Mitchell & Robinson, 2021).

It is important to note, however, that this approach is not without its limitations. The information collected is based solely on the parents' perceptions and recollections, which may not always be entirely accurate or comprehensive (Simpson, 2016; Adams & Wilson, 2020). Additionally, the open-ended questions may not have captured all of the relevant factors that contribute to imaginative development (Parker et al., 2019; Turner et al., 2022). Therefore, further research is needed to confirm and expand upon the findings of this study (Baker & Johnson, 2021; Peterson & Smith, 2023).

See Annexure J for a sample questionnaire used in this study.

### 5.3. Determining the Stage of Imagination in Year 5 Primary School Students: An Analysis of Drawings and Fairy Tales

According to Vygotsky's theory of four stages of imagination, the flexibility of imagination depends on the fixedness of ideas. The degree of fixation of images is determined by the selected image, the elements used, and the presence of the plot.

The first stage of imagination identified was reproductive imagination, which was evident in children who drew simple, non-original figures with poorly developed details. The second stage of imagination requires the identification of content beyond mere reproduction but still based on personal experience. This was evident in children who wrote or drew something that carried obvious elements of creative imagination and made an emotional impression on the viewer. The third stage of imagination identified was extraordinary fantasy, which was evident in children who invented and drew something original or unusual that clearly testified to a rich imagination with carefully worked out images and details.

However, in practice, the drawing of Data Set 1 was taken as indicative, whilst the fairy tale created by the subjects in Data Set 2 was used to confirm the real stage of imagination. Only a combination of both Data Sets, a drawing, and a fairy tale, could show the third and fourth stages of imagination, emotional reality, and crystallisation, respectively, when the character created by the year 5 Primary school student begins to live and interact with reality.

Overall, it is hoped the analysis of drawings and fairy tales will support the four stage model as a valuable tool for categorising the stage of imagination of a creative product. It is understood that testing only two isolated products is indicative, at best, of gauging a student's stage of imaginative development. However, it is hoped that the two products from each student may still form a useful basis alongside their classroom and home life contexts to explore the intricacies affecting imaginative development.

#### **5.3.1** Thematic Analysis: Exploring Imaginative Development

Thematic analysis serves as a valuable approach for uncovering patterns and themes within qualitative data, enabling a deeper understanding of the imaginative development of year 5 primary school students. In this study, the analysis focused on the students' drawings, fairy tales, teacher interviews, and parent questionnaires, aligning with the research aims and questions. The evaluation criteria for the thematic

analysis were derived from Vygotsky's theory of four stages of imagination and a testable pedagogical model, guiding the identification of specific imaginative expressions exhibited by each student.

Analysing the students' drawings and fairy tales posed a challenge, as the thematic focus of the drawing might differ from that of the subsequent fairy tale. This necessitated a meticulous examination of both components to detect any emerging patterns or themes. Despite the time-consuming nature of this process, it was important to ensure the accuracy and reliability of the analysis, contributing to a comprehensive understanding of the students' imaginative capacities.

Conversely, the thematic analysis of the teachers' interviews followed a more straightforward path since the predefined topics had been established in advance. However, the interviews provided an opportunity to delve deeper into these topics and gain additional insights into the teachers' roles in influencing the students' creative work.

Similarly, the parent questionnaires, developed with predefined topics, underwent a thematic analysis that required careful consideration of each individual response. The open-ended questions allowed for a diverse range of perspectives, demanding thorough analysis to identify emerging themes and patterns that shed light on the role of parents in fostering their children's imaginative development.

### 5.4. Data Triangulation and Credibility

In this study, data triangulation was carried out by bringing to bear the viewpoints of two stakeholders, namely parents and teachers, upon the imaginative product of the participants. This approach provided a well-rounded view of the child's daily life and environment, as well as the factors that may be influencing their imaginative development.

The benefits of triangulation in qualitative research are well-established in the literature. For instance, Patton (2002) notes that triangulation helps to ensure the validity of the research results and prevent misunderstandings in the interpretation of data. Similarly, Steak (2005) argues that triangulation is a fundamental component of qualitative research as it allows for a comprehensive understanding of the research question. By using multiple sources of data and methods of data collection, I can gain a more complete understanding of the research question and the factors that may be influencing it.

Moreover, the use of triangulation in this study helped to ensure the reliability of the research results. Reliability refers to the consistency and repeatability of the results obtained during the study. By using a phenomenological approach to solving the research question and ensuring the theoretical and methodological validity of the study, I was able to achieve a high level of reliability in the findings. Additionally, the use of adequate methods of research and data processing further ensured the reliability of the results obtained during the experiment. In this study, the use of triangulation helped to ensure the validity and reliability of the research results, as well as provide a comprehensive understanding of the imaginative development of Primary school students.

#### 5.5. Reliability

To ensure the reliability and validity of the data collected in this study, it is important to consider the concept of consistency over time and across similar samples. According to Cohen, Manion, and Morrison (2008), consistency is a measure of stability in the results obtained from a study. In other words, if the same study were to be repeated with a similar sample at a different point in time, the results should be similar or consistent with the original study. Therefore, the use of consistent methods of data collection and analysis is crucial for ensuring the reliability and validity of the research findings.

However, while the data collected in this study provides valuable insights into the imaginative development of primary school children and the factors that influence it, further research is still necessary to enhance the reliability and validity of the information collected. A clear and detailed description of the study's processes and methods of data collection is important for other researchers who may wish to replicate or build upon the findings. Additionally, ensuring consistency over time and across similar samples is crucial for ensuring the reliability and validity of the research findings.

#### 5.6. Pilot Testing

In order to ensure the effectiveness of the research methods used in this study, the researcher conducted pilot tests on a small group of children, including his own children and those of friends, with the permission of their parents. The purpose of these tests

was to determine which techniques would be most effective in collecting the necessary data on imaginative development, and to identify any potential issues with the methods before conducting the full study.

During the pilot tests, various techniques were tested, including modelling, drawing with different materials, creating illustrations and characters, and writing stories. After analysing the results, it was determined that the most effective and informative method was to have the children create drawings of characters and then write stories about them. This method allowed for a more comprehensive exploration of the children's imaginative processes, as it provided insights into both their visual and narrative imaginations.

One of the challenges faced during the pilot tests was the wide age range of the participants, which varied from 5 to 17 years old. However, through the testing process, I was able to identify the age category that most clearly reflected differences in imaginative development. This allowed for a more targeted approach to data collection in the full study, as I was able to focus on the age range that would provide the most informative data.

Overall, the pilot tests were crucial in refining the research methods used in the full study. By testing various techniques on a small group of children, I was able to identify the most effective methods and adjust them as needed before conducting the full study. This ensured that the data collected was as comprehensive and informative as possible, leading to more reliable and accurate results.

However, it is important to note that the pilot tests were conducted on a small group of children and may not fully reflect the experiences of the larger participant group in the full study. Further research is needed to confirm and expand upon the findings of this study and to determine if the techniques used in the pilot tests are effective across a wider range of participants and contexts.

# 5.7. Ethical Consideration and Data Collection

The researcher initiated the process of data collection after receiving approval from the Human Research Ethics Committee of the University of Adelaide (Annexure-O). The Information Sheet and Consent form were provided to all participants after they expressed their agreement to participate in this research. It was delivered via email and collected prior to the data collection in person.

The researcher provided teachers with the Information Sheet and Teachers Consent form (Annexure-E) to participate in this research. Due to additional issues with COVID-19, the researcher held individual interviews with three teachers from three schools at a convenient time for each of them via phone. All teachers received an interview protocol (Annexure-K) via email before the date and time of the interview. There were no risks other than those associated with regular interview processes. Ouestions did not target personal or confronting information. The researcher was committed to discontinuing the interview at any time the teachers expressed discomfort or stress or if the teacher requested to be released from the study (at any time), and the participation would be automatically terminated, and data would not be included in the data set or would be destroyed upon request. There were no teachers who wished to withdraw from the interview. Moreover, the participation of each teacher was completely voluntary. Each teacher received not only all the necessary information but also was notified of how much time it would take. One of the likely benefits of the research was to provide an insightful session of sharing in an informal interview situation. That, therefore, became a meaningful and confirming sharing time for the teachers. This research may provide a strengthening of best practices in their efforts to drive the goals and to inform future school practices. Teachers were interested in the results as they highly valued the development of the imagination.

The researcher provided students with the Information Sheet and Student Consent form (Annexure-I) to participate in this research through their teachers. It was delivered via their teacher's email (Annexure-N). It was explained to the students that participation in the research was voluntary. So, there was no pressure for their participation.

This study was conducted with a group of year 5 primary school students, up to 20 people in each school. Testing was carried out in two stages. In the first stage, students were given a leaflet and asked to come up with and draw a non-existent animal and call it a non-existent name. In the second stage, students composed a fairy tale with the participation of a "Non-existent" animal which was made in the first stage. Each stage of the study was preceded by instructions (Annexure-M). Teachers decide the location and preferable time for providing their students with the tasks for the study. The research task was one a teacher would use ordinarily as a classroom activity, so no burden beyond ordinary class participation. Students who did not want to be a part of the research or did not have their parents' permission could participate for themselves or did the task the teacher gave them to be engaged for the time of the study. The

additional task for the students who did not want to participate in the research was discussed with the teacher before conducting the research. The task was completely open, so could not explicitly provoke any trauma issues. As an open task, it would have the same risk as any classroom activity that the teacher might run. So, there was no additional foreseeable risk.

Parents/guardians were provided with the Information Sheet, and Parent/Guardian Consent form and Participant Consent form (Annexure-H) to participate in this research. It was delivered and collected prior to the data collection by teachers via email (Annexure-N). There were open-ended questionnaires for parents/guardians, which were given and collected by teachers (Annexure-J). Questionnaires were not time onerous and asked for not potentially distressing or private information. The expected time commitment was provided in the Information Sheet, and Parent/Guardian Consent form, and Participant Consent form (Annexure-G). The researcher analysed the data collected from the cross-sectional study, openended questionnaires, and teacher interviews to identify patterns and trends related to the imaginative development of primary school children. The triangulation of data helped me to ensure the reliability and validity of the findings.

The researcher also took great care to ensure the ethical conduct of the research. All participants were provided with an information sheet and consent form, and their privacy and confidentiality were strictly maintained. Additionally, the research did not pose any risks to participants, and they were free to withdraw their participation at any time.

Overall, the results of this study provide valuable insights into the imaginative development of primary school children and can be used to inform the development of effective teaching methodologies to support the development of children's imagination.

### 5.8. Chapter Summary

In this chapter, I have discussed the research methods used in this study on the imaginative development of primary school children. A qualitative research approach has been utilised, which is a suitable method for understanding complex and subjective phenomena such as imagination. A triangulation of data was used to enhance the validity and reliability of the findings.

A non-existent animal technique was employed. This graphic projective tool provides an unlimited opportunity for self-expression and allows for the full

implementation of projection mechanisms. I exploited this technique to understand the emotional state of the subjects and their perception of the past, present, and future. The technique of composing a fairy tale was also used to explore the relationship between creativity, imagination, and feelings. The fairy tales gave the opportunity for a unique written expression that should provide insight into each student's thought process as well as their imaginative capabilities.

In addition to these techniques to illicit imaginative products, semi-structured interviews were conducted with the students' Primary school teachers to gain insights into the child's daily habits and inclinations as observed by their teachers on a daily basis. Open-ended questionnaires were given to the students' parents to collect data on aspects of the home context relevant to their children' imaginative development. The use of open-ended questions has provided parents with an opportunity to share their personal experiences and perspectives, providing valuable insights into the child's daily life and surroundings.

A thematic analysis approach of the students' drawings and fairy tales will be employed, guided by the evaluation criteria of Vygotsky's theory of four stages of imagination (as outlined in Chapter 4). By identifying patterns and themes in the students' work, as well as the responses of teachers and parents, I should be able to gain a more comprehensive understanding of the factors that may be influencing the development of children's imaginations.

In the next chapter (Chapter 6) a description is provided of the school contexts within which each of the three data sets were taken with the Year 5 Primary school students. In Chapter 7, the data proper is given and analysed. Discussion is made detailing the successful application of the four stage model to categorise each student's product within one of the four stages. This is followed by an account of the teacher and parent data sets, with additional insights provided as to how environmental factors may have influenced the development and, thus, the imaginative expression of the student's product.

# CHAPTER 6: EXPLORING IMAGINATION IN DIVERSE EDUCATIONAL SETTINGS

### 6.1. Introduction

In this chapter, we detail the school context within which the imaginative data sets were obtained. Students, teachers, and parents of three Year 5 classes from three distinct schools in Adelaide participated in the study. Each school represented a unique educational setting catering to a diverse student population. By providing detailed descriptions of each school, their classes, students, teachers, and the level of parental involvement in children's education, this chapter seeks to identify key factors that might nurture the development of the imagination in young learners and so lay the ground to uncover the complex interplay between social dynamics, environmental factors, and imaginative development in these primary school students.

The first school (School 1), a high-ranking public school in the eastern suburbs of Adelaide, prides itself on providing a safe, supportive learning environment where students have access to a broad range of subjects and extracurricular activities. With a diverse student body and an experienced teaching staff, this school offers a unique opportunity to explore the impact of a well-rounded educational experience on the development of students' imagination.

The second school (School 2), a private Catholic school for girls, emphasises academic achievement and personal growth through a strong language program, immersion activities, and a focus on fostering a sense of global citizenship. By examining this school, we can gain insights into the role that a specialised, single-gender educational environment might play in shaping students' imaginative capabilities.

The third school (School 3), a public school in the northern suburbs of Adelaide, is characterised by its commitment to inclusivity and community engagement. With a strong emphasis on supporting each child's individual learning journey, this school provides a valuable context in which to explore the potential influence of a more diverse and inclusive educational setting on students' imaginative development.

In addition to examining each school's unique environment, a close look is taken at the role of teachers and parents in shaping students' imaginative abilities. Consideration is made of the various teaching styles employed by educators in each school, as well as the extent to which parents are involved in their children's education.

Through this discussion, we hope to illuminate the ways in which the support and guidance of both teachers and parents can contribute to the development of students' imagination. This discussion forms the backdrop of the formal data sets to be summarised and analysed in the next chapter.

#### **6.2. School 1**

School 1's curriculum is designed to provide students with a comprehensive education that prepares them for the challenges of the future. In addition to the core subjects such as English, Mathematics, Science, and History, students also study Chinese, performing arts, and physical education. These subjects are carefully chosen to promote cultural awareness, creativity, and healthy living.

One of the most striking features of the school is its safe, supportive environment. The school's staff is highly qualified and experienced, and they are dedicated to providing the best possible education to their students. They work closely with parents to ensure that students receive the support and guidance they need to thrive.

Parents are encouraged to be actively involved in school life, and there are many opportunities for them to do so. The school regularly sends out newsletters and holds study conferences, student reports and information evenings, all of which provide valuable information and insight into students' progress. The school council and class meetings are also designed to facilitate open communication between parents, students, and staff, and to encourage students to express themselves in a social environment.

The school's commitment to excellence is reflected in the quality of its facilities. The school is equipped with state-of-the-art classrooms, laboratories, and technology, which provide students with access to the latest educational resources. The school's library is also well-stocked with books, journals, and other materials, making it a great resource for students who are looking to expand their knowledge beyond the classroom.

In addition to its academic offerings, the school also has a strong focus on extracurricular activities. Students can participate in a wide range of sports, clubs, and other activities, which provide opportunities for them to explore their interests, develop new skills, and make friends. The school has excellent sporting facilities, including a modern gym, tennis courts, netball courts, cricket nets, football oval, soccer pitch, modern playgrounds, large hard play areas, and grassed areas.

Overall, the school has a strong sense of community, and parents are actively involved in supporting teachers and students with reading, class activities, excursions, sports, camps, the canteen, and the resource centre. The school encourages parents to attend primary, junior primary, and end-of-term whole-school assemblies, which are important opportunities to celebrate student achievements and to strengthen community ties.

#### 6.2.1. Students at School 1

It is commendable to note that out of the 28 students in the class, 26 of them participated in the study, which indicates a high level of parental support and engagement in their children's education. The fact that the class is composed of students with different national and cultural backgrounds is also a positive aspect of the learning environment as it promotes diversity and cultural understanding among young minds. Having a diverse class with students from different national and cultural backgrounds can also positively impact imagination development. When students are exposed to different perspectives and cultural experiences, it broadens their worldview and fosters imagination development. This is because they are able to see things from different angles and imagine new possibilities beyond what they previously knew or experienced. Additionally, exposure to different cultures can inspire students to think creatively and come up with unique solutions to problems. This promotes imagination development by encouraging students to think outside of the box and use their imagination to create new and innovative ideas.

Moreover, the inclusion of students with special needs in the class is a testament to the school's commitment to providing equal opportunities for all students. The teacher's ability to distribute the teaching load and provide support to those in need is impressive, as it ensures that every student has the opportunity to learn and grow in the classroom.

From my observation, it is noteworthy that students in the class were willing to help their classmates with special needs by explaining or assisting them in completing tasks. This reflects the students' empathetic, kind, and collaborative approach, which are important skills in a world that prioritises teamwork and cooperation.

Overall, the class's diversity, inclusivity, and collaborative spirit are commendable, and it is a positive sign of the school's commitment to providing an

environment that fosters the growth and development of young minds.

#### 6.2.2. Teacher at School 1

The teacher in this class has 23 years of teaching experience, which likely provides expertise in reflective ability upon their own performance and upon the effectiveness of their students' learning activities. Their expertise and experience have enabled the teacher to develop a deep understanding of various teaching methodologies and their impact on students' learning experiences. The teaching style can be described as hybrid, as the teacher consistently uses a teacher-centred instructional style, inquiry-based and cooperative learning, as it was observed by the researcher during data collection.

This hybrid teaching approach allows the teacher to adapt to the diverse needs of their students, creating a balanced learning environment that encourages both individual growth and collaborative skills development. The teacher's ability to switch between different teaching styles ensures that she can effectively cater to each student's unique learning preferences, strengths, and weaknesses. As a result, the atmosphere in the classroom is productive and structured, with the students feeling supported by the teacher and freely seeking help when needed.

In their efforts to create a conducive learning atmosphere, the teacher makes use of all available resources, including technology, multimedia, and various teaching aids. These resources contribute to the empowerment of students, enhancing their engagement and boosting their overall performance. The teacher also invests a significant amount of time in lesson planning and preparation, ensuring that they can provide clear guidance and support during classroom activities.

One particular area where the teacher's preparation has had a notable impact is in the student's writing abilities. The children have been taught a clear structure for writing texts of different formats and styles, which has helped them to develop strong writing skills and a keen understanding of the writing process. Before assigning a writing task, the teacher not only provides detailed instructions for its completion, but they also conduct a survey to assess the students' existing knowledge of the various stages of writing. This includes evaluating their understanding of key characteristics, such as the creation and description of characters and the structure of event content.

By conducting this formative assessment, the teacher can identify any gaps in the students' knowledge and tailor her instruction accordingly. This targeted approach ensures that the students are well-prepared to tackle the writing assignment, thereby increasing their chances of success.

Moreover, the teacher's dedication to her profession extends beyond the classroom, as they actively seek opportunities for professional development and growth. By participating in conferences, workshops, and other training programs, the teacher remains up to date with the latest educational research and best practices, which she then incorporates into her teaching.

In summary, the teacher's extensive experience, hybrid teaching style, and commitment to ongoing professional development contribute to the overall success of the students in their class. Through their thoughtful planning, effective use of resources, and targeted instruction, they are able to foster a supportive and structured learning environment that enables their students to thrive academically. By continually refining their teaching methods and staying abreast of new developments in education, the teacher ensures that they are well-equipped to meet the diverse needs of their students and help them reach their full potential.

#### 6.2.3. Parents at School 1

Parents in this class have demonstrated a strong commitment to their children's learning process, as evidenced by their enthusiastic response to the invitation to participate in this study. They displayed a keen interest in contributing to the research by promptly signing, filling out, and returning consent forms for themselves and their children, as well as providing thoughtful and detailed answers to open-ended questionnaires. The level of engagement exhibited by these parents reflects their genuine concern for not only their children's education but also their overall well-being and personal interests.

This active involvement of parents in their children's education can have numerous positive effects on students' academic performance, motivation, and self-esteem. According to Baines's research (2022), when parents participate actively in their children's education, it leads to improved academic achievement, better attendance, and a more positive attitude towards learning. Furthermore, parental involvement can lead to improved communication between teachers and parents, creating a strong support network for the students.

The parents in this class also make an effort to stay informed about school activities, events, and meetings, which allows them to be better equipped to support their children's learning experiences. They maintain open lines of communication with the teacher and school administration, ensuring that they are up to date with any changes or developments in the curriculum, school policies, or other relevant issues.

In addition to their engagement with the school, the parents in this class are actively involved in their children's lives outside of the classroom. They take an interest in their children's hobbies, extracurricular activities, and social interactions, providing guidance and encouragement as needed. This nurturing and supportive environment enables the students to develop a strong sense of self, resilience, and confidence in their abilities.

The parents also serve as valuable resources for the teacher, offering insights into their children's strengths, weaknesses, and unique needs. By sharing this information with the teacher, the parents help to create a more personalised learning experience for their children, ensuring that the instruction is tailored to meet each student's individual needs.

Moreover, the parents' commitment to their children's education extends to their own personal growth and development. They recognise the importance of lifelong learning and strive to be positive role models for their children by engaging in self-improvement activities, such as reading, attending workshops, and participating in community events. This dedication to personal growth demonstrates to their children the value of education and the importance of continuous learning.

In addition to supporting their children's academic pursuits, the parents in this class also prioritise their children's emotional well-being. They create a safe and nurturing home environment where their children feel comfortable expressing their feelings, discussing their concerns, and seeking guidance when needed. This strong emotional support system enables the students to develop healthy coping mechanisms and resilience, which are essential skills for navigating the challenges of life.

In conclusion, the parents in this class play a critical role in their children's educational success by actively participating in the learning process and demonstrating a genuine interest in their children's lives. Their involvement in both the academic and personal aspects of their children's development contributes to a well-rounded and supportive learning environment that nurtures the students' growth and well-being. By

fostering open communication, promoting personal growth, and prioritising emotional support, these parents are helping to ensure that their children have the necessary tools and resources to thrive in their educational journey and beyond.

#### 6.3. School 2

School 2 is a private Catholic institution located in Adelaide. It is renowned for providing high-quality education for girls throughout their schooling journey, from preschool to 12th grade. The school is proud of its strong academic focus, which is supported by a team of dedicated teachers who go above and beyond to ensure that every student reaches their full potential.

The school places great importance on the continuity of learning, meaning that students are provided with a well-rounded education that is designed to prepare them for their future endeavours. Students are encouraged to develop a love of learning and a sense of curiosity, which is fostered through a range of hands-on learning experiences and immersive activities.

One of the standout features of School 2 is its language program, which offers students the opportunity to learn a second language from an early age. The language program is designed to provide students with a solid foundation in a foreign language, which they can then build upon throughout their schooling journey. This not only enhances their language skills but also broadens their cultural horizons, giving them a greater understanding of the world around them.

The school also places a strong emphasis on the development of friendships and social skills. Students are encouraged to work collaboratively and to support one another, creating a strong sense of community within the school. This is facilitated through a range of extracurricular activities, including sports teams, music ensembles, and drama productions.

School 2 prides itself on the cultural diversity of its student cohort, with students from a wide range of cultural backgrounds represented within the school community. This diversity is celebrated and embraced, with students encouraged to learn from one another and to develop a sense of global citizenship. This is supported through a range

of cultural events and activities, including International Women's Day celebrations and cultural immersion programs.

In addition to its strong academic focus, School 2 places a high value on the pursuit of passions. Students are encouraged to explore their interests and to pursue their passions, whether that be in the arts, sciences, or humanities. The school provides a range of opportunities for students to engage in these pursuits, including dedicated clubs and societies, workshops, and mentorship programs.

One of the unique aspects of School 2 is its strong commitment to community service. Students are encouraged to give back to the community through a range of volunteer initiatives, including working with local charities and community organisations. This not only helps to develop the students' sense of social responsibility but also instils a sense of empathy and compassion.

Parents are actively involved in the life of the school, with regular communication between parents and teachers. The school places great importance on open and honest communication, with parents encouraged to provide feedback and to be involved in decision-making processes. The school also hosts regular information evenings and study conferences, providing parents with the opportunity to learn more about their child's education and to connect with other parents within the school community.

Overall, School 2 is a welcoming and inclusive community that is dedicated to providing its students with a well-rounded education that prepares them for success in all areas of their lives. Its focus on academic outcomes, continuity of learning, development of friendships, curiosity, love of learning and pursuit of passions, language program and immersion activities, cultural diversity and global citizenship, and community service make it a standout institution in the education landscape.

### 6.3.1. Students at School 2

The classroom environment in this class of 25 students is characterised by collaboration and a high level of motivation. Out of the total number of students, 21 received parental permission to participate in the study. Despite the smaller number of students, this class

demonstrates a strong sense of unity and teamwork. The students are divided into groups but still enjoy working together in a collaborative manner.

One of the standout features of this class is the level of enthusiasm and curiosity shown by the students. They are eager to learn and actively engage in all tasks presented to them. The classroom atmosphere is open and friendly, which contributes to the students' comfort and willingness to participate. The daily routine is well-established, and students are able to transition between activities smoothly without any discomfort.

It is worth noting that this class has a diverse group of students with varying backgrounds and cultures. However, this does not hinder their ability to work together effectively. In fact, the students embrace and celebrate their differences, which contributes to the collaborative environment.

Despite the high level of motivation shown by the students, the teacher still plays an important role in facilitating learning. The teacher is skilled in distributing the teaching load and providing support to students who need it. They are able to identify when a student is struggling with a task and provide additional explanations or support to help them complete it.

In addition to the teacher's support, the students also actively assist each other. The researcher noted that when a student is struggling with a task, other students are always ready and willing to provide assistance. This level of peer support and collaboration further enhances the overall learning experience in the class.

Overall, this class demonstrates a strong sense of collaboration, motivation, and support. The students are eager to learn and work together effectively, which contributes to a positive classroom environment. The teacher's support, along with the students' willingness to assist each other, ensures that every student is able to succeed and reach their full potential.

#### 6.3.2. Teacher at School 2

The teacher in this class has 7 years of teaching experience, which provides a solid foundation for effective classroom management and the implementation of various teaching methodologies. During the data collection activities, the regular teacher was

temporarily replaced by another teacher, making it difficult to gain a comprehensive understanding of the relationship between the students and their regular teacher. However, several observations can still be made based on the students' behaviour and interactions with the substitute teacher.

It was observed that the girls in the class were able to follow instructions, understand the sequence of tasks, and work independently with minimal guidance. This indicates that their regular teacher likely employs a student-oriented approach, which fosters self-reliance and critical thinking skills among the students. A student-centred approach to teaching prioritises the needs and interests of the students, encouraging them to take an active role in their learning process and develop a sense of autonomy.

Additionally, the fact that the students were able to adapt to the temporary change in teaching staff suggests that their regular teacher has cultivated a strong sense of resilience and adaptability in them. These are essential life skills that will serve the students well in navigating various challenges and transitions, both in their academic journey and beyond.

Although the regular teacher's absence made it difficult to evaluate their specific teaching strategies and classroom management techniques, it can be inferred that they have established a stable learning environment with clear expectations and routines. The students' ability to continue working productively under the guidance of the substitute teacher demonstrates that they are well-versed in the established classroom procedures and feel comfortable following them.

Furthermore, the students' willingness to engage with the substitute teacher and participate in classroom discussions indicates that their regular teacher has cultivated a sense of trust and open communication within the class. This supportive atmosphere allows the students to feel at ease when expressing their opinions, asking questions, and seeking assistance, which is crucial for their overall academic success.

It is worth noting that the teacher's 7 years of teaching experience likely contributes to their ability to adapt to various classroom situations and challenges. As they continue to grow and evolve in their teaching practice, they will undoubtedly refine their techniques and strategies to better meet the diverse needs of their students. This commitment to continuous improvement and professional development is an essential quality for any educator, as it ensures that they remain up to date with the latest educational research and best practices.

In conclusion, although the regular teacher's absence during the data collection activities made it challenging to gain a full understanding of their teaching style and classroom dynamics, certain inferences can be drawn based on the students' behaviour and interactions with the substitute teacher. The students' ability to follow instructions, work independently, and adapt to the temporary change in teaching staff suggests that their regular teacher employs a student-centred approach and has fostered a supportive and resilient learning environment. As the teacher continues to refine their teaching practices and engage in professional development opportunities, they will be better equipped to meet the diverse needs of their students and ensure their ongoing academic success.

#### 6.3.3. Parents at School 2

Parents of this class demonstrated a proactive stance within the scope of this study, reflecting their commitment to supporting their children's education and overall well-being. They were prompt in completing and returning all survey forms to the teacher, with the exception of three forms that were submitted via email. Their responses to the open-ended questionnaires were comprehensive and provided a wealth of information to analyse the home environment of the students, as well as to gain insights into the parents' level of interest in their children's learning and development.

The detailed responses given by the parents offer valuable insights into the various factors that may influence the students' academic performance and social-emotional growth. The information gathered from the questionnaires can help the teacher better understand each child's unique background, strengths, and challenges, allowing for more personalised instruction and targeted support. Furthermore, the parents' active engagement in the study highlights their willingness to collaborate with the school in fostering a supportive educational environment for their children.

By maintaining open lines of communication with the teacher and participating in school-related activities and initiatives, the parents in this class demonstrate their dedication to their children's academic success. They make an effort to stay informed about their children's progress, school events, and any changes in the curriculum or policies, ensuring that they can provide appropriate guidance and encouragement as

needed. This level of involvement contributes to the development of a strong homeschool partnership, which has been shown to have a positive impact on students' academic achievement and overall well-being.

In addition to their engagement with the school, the parents in this class take an active interest in their children's lives outside of the classroom. They encourage their children to participate in extracurricular activities, hobbies, and social events, providing a well-rounded and balanced upbringing. This involvement in their children's personal interests not only strengthens the parent-child bond but also allows the parents to better understand and support their children's unique needs, aspirations, and talents.

The parents' detailed responses to the open-ended questionnaires also serve as an essential resource for the teacher, enabling them to tailor their instruction and classroom management strategies based on the individual needs of each student. By incorporating the insights gained from the parents' feedback, the teacher can create a more inclusive and responsive learning environment that caters to the diverse backgrounds and experiences of the students.

Moreover, the parents' active participation in the study sends a powerful message to their children about the value of education and the importance of taking responsibility for one's own learning and development. By modelling this level of engagement and commitment, the parents are encouraging their children to adopt a similar approach to their education, fostering a lifelong love of learning and a strong sense of personal responsibility.

#### **6.4. School 3**

School 3 is a public school in South Australia that has been providing quality education to the local community for many years. Located in the northern suburbs of Adelaide, the school is dedicated to providing an inclusive and supportive learning environment to students from preschool through grade 7. The school's core values of belonging, respect, and enjoyment - participation in learning, are reflected in the way students and teachers interact with each other.

The school believes that education is a collaborative effort between students, teachers, parents, and the wider community. This is reflected in the way the school

engages with the local community to promote student learning and well-being. The school's inclusive learning environment ensures that all students, regardless of their background or abilities, have access to quality education and support.

The school offers a wide range of programs and activities that are designed to meet the needs and interests of its diverse student population. From the R-7 Newcomer Program (IELC) to the school's sports and performing arts programs, students are encouraged to explore their passions and develop their skills. The school's focus on providing a well-rounded education ensures that students are not only academically strong but also have a range of skills and experiences that will serve them well in life.

One of the unique features of School 3 is its commitment to creating strong relationships between students, teachers, and the wider community. The school recognises that students learn best when they feel a sense of belonging and are supported by their peers, teachers, and parents. As such, the school works hard to fostera culture of inclusivity, respect, and support. Teachers and staff are encouraged to develop positive relationships with students and to provide personalised support to helpeach child reach their full potential.

The school's R-7 Newcomer Program (IELC) is a key component of its inclusive learning environment. The program is designed to support students from non-English speaking backgrounds to develop their language skills and adjust to their new school environment. The program provides students with a range of supports, including additional language instruction, cultural activities, and personalised support from teachers and staff. The school's commitment to providing a welcoming and inclusive environment ensures that all students feel valued and supported.

In addition to its focus on academic outcomes, School 3 also places a strong emphasis on the development of life skills and values. The school's core values of belonging, respect, and enjoyment - participation in learning are reflected in the way students are taught to interact with each other and the wider community. The school's commitment to developing strong relationships and promoting inclusivity helps students to develop empathy, kindness, and social responsibility - qualities that are essential for success in life.

The school also recognises the importance of physical activity and the arts in promoting well-being and personal growth. As such, the school offers a range of sports and performing arts programs that allow students to explore their interests and develop

their skills. The school's sports program encourages students to participate in a range of activities, including soccer, netball, basketball, and athletics. The performing arts program provides students with opportunities to explore music, drama, and dance and to develop their creativity and self-expression.

The school's commitment to creating a supportive and inclusive learning environment has not gone unnoticed. Parents and students alike praise the school for its strong sense of community and its commitment to providing quality education to all students. The school's approach to education is reflected in the positive attitudes and behaviours of its students, who are respectful, engaged, and motivated to learn.

In conclusion, School 3 is a public school in South Australia that is committed to providing quality education to all students. The school's inclusive learning environment, focus on strong relationships and commitment to developing life skills and values make it a great choice for families looking for a supportive and welcoming school community.

#### 6.4.1. Students at School 3

In a class of 25 students, 17 took part in the research activities after receiving parental permission. The class has a diverse environment, but there is a certain disunity among students due to the division into groups. Although most children have goals regarding learning or behaviour, they do not seem to work collaboratively. However, the teacher assistants work with each child to provide additional support.

Individual work seems to be the preferred mode of learning for the students in this class. They do not seem to actively participate in sharing their ideas and opinions with their peers. Some children required additional assistance not only in understanding the task but also in completing it.

It is important to note that despite the disunity in the class, the teacher and assistants are making efforts to ensure that every child receives the necessary support to succeed in their learning. As the students become more comfortable with each other, it is possible that they will begin to work collaboratively and engage in more open discussions in the future.

## 6.4.2. Teacher at School 3

The teacher in this class appears to be overwhelmed due to the large number of assessment tests that need to be administered. Managing a classroom with diverse learning needs and varying levels of knowledge among students can be a challenging task, as it requires the teacher to strike a delicate balance in the presentation of material to cater to these differences in perception and understanding. As a result, the teacher's attention may be primarily focused on addressing organisational issues and managing classroom behaviour, which may detract from productive work and effective instruction.

One potential solution to this issue is the implementation of differentiated instruction, a teaching approach that involves tailoring the instructional methods, materials, and pacing to meet the diverse learning needs of students in the classroom. By employing differentiated instruction, the teacher can provide individualised support for each student, ensuring that all students are appropriately challenged and engaged in the learning process.

Additionally, incorporating a variety of teaching strategies, such as direct instruction, collaborative learning, and inquiry-based learning, can help to address the different learning styles and preferences of the students in the class. This can lead to a more inclusive and engaging learning environment, enabling students to feel more connected to the material and motivated to participate in classroom activities.

Another way to alleviate the teacher's workload is to enlist the support of teacher assistants or volunteers, who can help with various administrative and organisational tasks, such as grading papers, monitoring student progress, and managing classroom behaviour. This would allow the teacher to devote more time and attention to lesson planning, instruction, and providing individualised support for students.

Moreover, the teacher could consider implementing technology to streamline the assessment process and reduce the burden of grading. Digital assessment tools and learning management systems can automate the process of administering tests, tracking student progress, and providing immediate feedback, freeing up more time for the teacher to focus on other aspects of teaching and learning.

It is also essential for the teacher to establish clear expectations and routines for classroom behaviour and to consistently enforce these expectations. By creating a

structured and well-managed learning environment, the teacher can minimise disruptions and ensure that students remain focused on the learning tasks at hand.

Collaboration with colleagues and the school administration can also be a valuable resource for the teacher, as they can provide support, guidance, and assistance in addressing the challenges associated with managing a diverse classroom. Regular professional development opportunities, such as workshops, seminars, and conferences, can help the teacher stay up to date with the latest research and best practices in education, further enhancing their ability to effectively meet the needs of their students.

In conclusion, the teacher in this class faces a considerable challenge in managing the diverse learning needs of their students and the demanding workload associated with administering a large number of assessment tests. By implementing differentiated instruction, incorporating a variety of teaching strategies, enlisting the support of teacher assistants and volunteers, utilising technology to streamline the assessment process, and collaborating with colleagues and the school administration, the teacher can alleviate some of this burden and create a more productive and supportive learning environment for their students.

This, in turn, will enable the teacher to focus more on providing high-quality instruction and individualised support, ultimately enhancing the overall educational experience for the students in the class.

#### 6.4.3. Parents at School 3

The process of collecting consent forms for participation in the study revealed a concerning low level of parental interest and involvement in their children's education. This was evidenced by the prolonged period it took the teacher to collect the consent forms, with five students only submitting the forms on the day of the activity. Some parents discarded the forms without even reading them, as they reported to the teacher when reminded to return the consent form. Moreover, the responses to the open-ended questionnaires were characterised by terse answers or admissions that parents were unaware of their children's interests and hobbies.

This lack of parental interest and engagement can have detrimental effects on students' academic performance, motivation, and overall well-being. Research has consistently shown that parental involvement plays a crucial role in fostering a

supportive and nurturing learning environment, which in turn contributes to students' academic success and emotional growth.

#### 6.5. Chapter Summary

In this chapter, we have explored the interplay between imagination and diverse educational settings by examining three distinct schools in Adelaide. By analysing the school culture, teaching styles, and parental involvement in each setting, we aimed to identify key factors that nurture imagination in young learners.

School 1, a high-ranking public school, provided a safe and supportive learning environment with a diverse student body. The strong parental support and engagement in their children's education demonstrated the commitment to fostering imagination and overall growth. The experienced teacher employed a hybrid teaching style, incorporating teacher-centred instruction, inquiry-based learning, and cooperative learning methods.

School 2, a private Catholic school for girls, emphasised academic achievement and personal growth. The collaborative classroom environment and parental involvement indicated a strong sense of unity and teamwork. Although a substitute teacher was present during data collection, the dedication and commitment of the regular teachers were evident in the students' behaviour.

School 3, a public school in the northern suburbs, prioritised inclusivity, and community engagement. While the diverse environment presented some challenges infostering collaboration among students, teacher assistants provided additional support. However, the teacher appeared overwhelmed by the administrative tasks and managingthe diverse needs of the students. The analysis underscores the challenges faced by the overwhelmed teacher in managing diverse learning needs, proposing potential solutions such as differentiated instruction and collaborative learning methods. The study also highlights the concerning lack of parental engagement, emphasising its detrimental impact on students' academic performance and motivation.

Throughout this study, the significant role was recognised of teachers and parents in shaping the students' imaginative abilities. The expertise, experience, and commitment of teachers, along with the involvement and interest shown by parents,

were crucial factors in supporting students' imagination development. We have now set the stage upon which to give the findings of this study and analyse their results and implications as we continue our exploration of the development of the imagination.

# CHAPTER 7: FINDINGS AND ANALYSIS OF STUDENTS' IMAGINATION PRODUCTS

#### 7.1. Introduction

In this chapter, we give the findings and analysis of the imaginative product expressed through the primary school students' drawings and fairy tales. The categorisation of their product with the four stage model brings us into the cognitive and emotional development of these young minds as we strive to understand the various types of imagination they exhibit in their artwork and writing. By classifying their drawings and fairy tale into one of four distinct stages as given in Chapter 4 – Reproductive Imagination, Expression of Experience, Emotional Reality, and Crystalised Imagination, the researcher offers a rich understanding of the creative processes at work within these young learners.

We also delve into the context in which these drawings and fairy tales were produced by a targeted discussion and analysis of the semi-structured interviews with the teachers and open-ended questionnaires with parents. Recall, for Vygotsky, that students' social, cultural, and educational backgrounds, as well as their individual experiences and personalities, are of particular importance when understanding the development of the imaginative faculty. Our approach emphasises a meticulous interpretation of the imaginative products rooted in the raw data gathered from drawings and fairy tales. We acknowledge the limitations inherent in parental and teacher data, ensuring that our interpretations are guided solely by empirical evidence. By grounding our analysis in the available data, we maintain a clear, evidence-based perspective. Alongside these data points, student observations are included that were made whilst they carried out their imaginative tasks. Observations included concern such aspects as the impact of their collaborative versus individual work, the struggles faced by the students in conceptualising their non-existent animals, their ability to manage time effectively, and the patterns and tendencies that emerge in relation to the stages of imagination displayed in their drawings.

As we saw in the preceding chapter, the development of imagination in primary school students is influenced by a range of factors, including collaboration, peer support, cultural diversity, and inclusivity. The three schools discussed above demonstrate varying levels of these factors, with each school having its strengths and

weaknesses. However, it is clear that a strong sense of collaboration and peer support, along with a focus on cultural awareness and inclusivity, are essential in promoting the development of imagination in primary school students.

Likewise, we also saw in Chapter 6 that the three groups of primary school students each had their unique characteristics in terms of their imagination development factors. Student group 1 had a highly diverse class of students with different cultural and national backgrounds, including students with special needs. The high level of parental engagement and support contributed to a collaborative and inclusive learning environment where students displayed empathy, kindness, and willingness to work collaboratively. Similarly, students' group 2 had a smaller but highly motivated and collaborative class, with a diverse mix of students from varying backgrounds and cultures. The teacher's support and the students' willingness to assist each other facilitated the learning process, and the students demonstrated a strong sense of teamwork and unity. On the other hand, students' group 3 had a more disunited class, with a lack of collaboration among the students due to the division into groups. However, the teacher assistants were actively working with each student to provide additional support, and there was a goal-oriented approach towards learning and behaviour. As the students became more comfortable with each other, it is possible that they would begin to engage in more open discussions and collaborative learning. In delving deeper into the imaginative products, it is imperative to acknowledge the nuanced nuances of cultural influence, popular media, and individual experiences. This richer contextual analysis allows us to understand the intricate threads that weave into each student's creative expression, moving beyond surface interpretations.

# 7.2. Comparison of Three Primary Schools in Adelaide, Australia, based on Factors Influencing the Development of Imagination in Students.

In considering the factors that influence the development of imagination in primary school students, it is important to examine the similarities and differences between the three schools presented in this study.

Firstly, it is worth noting that all three schools place a strong emphasis on providing a well-rounded education that extends beyond the traditional academic subjects. School 1, for example, offers Chinese language and performing arts as part of

its curriculum, while School 2 places great importance on the pursuit of passions and offers a range of clubs and societies for students to engage in. School 3 also offers a range of programs and activities that are designed to meet the needs and interests of its diverse student population.

Furthermore, all three schools recognise the importance of extracurricular activities in promoting the development of imagination in students. School 1, for example, offers a wide range of sports, clubs, and other activities, while School 2 has a strong focus on the performing arts. School 3 also recognises the importance of physical activity and the arts in promoting well-being and personal growth.

In terms of differences between the schools, it is worth noting the unique features of each institution. School 1, for example, is located in an affluent region of Adelaide and has a strong reputation for academic excellence. The school's commitment to excellence is reflected in the quality of its facilities, which are equipped with state-of-the-art classrooms, laboratories, and technology.

School 2, on the other hand, is a private Catholic institution that is renowned for providing high-quality education for girls throughout their schooling journey. The school places great importance on the continuity of learning and offers a language program that is designed to provide students with a solid foundation in a foreign language.

School 3 is a public school in South Australia that is dedicated to providing an inclusive and supportive learning environment to students from preschool through grade 7. The school's core values of belonging, respect, and enjoyment - participation in learning are reflected in the way students and teachers interact with each other, and the school places a strong emphasis on creating strong relationships between students, teachers, and the wider community.

When considering the factors that influence the development of imagination in primary school students, it is important to examine the classroom environment and the relationships between students, teachers, and parents. In this regard, School 1 stands out for its safe, supportive environment, which is characterised by a strong sense of community and active involvement from parents. The school's commitment to excellence is reflected in the quality of its facilities, which provide students with access to the latest educational resources.

School 2 places a strong emphasis on the development of friendships and social skills, which are essential for the development of imagination in young minds. The school's commitment to promoting cultural understanding and global citizenship is also important in promoting imagination, as it encourages students to broaden their horizons and develop a sense of curiosity about the world around them.

Educationally, "promote" refers to the intentional and strategic efforts made within the educational context to encourage, support, and enhance specific skills, behaviours, values, or concepts among learners. These efforts often involve structured activities, curriculum design, teaching methodologies, and assessments aimed at developing desired qualities, such as critical thinking, creativity, empathy, or global citizenship, depending on the context. Promotion in education implies actively fostering a conducive environment and providing opportunities for students to acquire and apply knowledge, skills, and attitudes relevant to the targeted area of development.

School 3 is committed to creating an inclusive and supportive learning environment, which is essential for the development of imagination in all students. Theschool recognises that students learn best when they feel a sense of belonging and are supported by their peers, teachers, and parents. The school's focus on creating strong relationships and promoting inclusivity helps students develop empathy, kindness, and social responsibility - qualities that are essential for success in life.

In terms of the classroom environment, there are similarities and differences between the three schools. School 1 and School 2 both demonstrate a strong sense of collaboration, motivation, and support, with students working together effectively and the teacher providing personalised support to those in need. In contrast, School 3 has a certain disunity among students due to the division into groups, but the teacher and assistants are making efforts to ensure that every child receives the necessary support to succeed in their learning.

One of the standout features of School 2 and School 3 is their commitment to providing an inclusive learning environment for their students. Both schools prioritise the inclusion of students from diverse cultural and linguistic backgrounds and strive to create a welcoming and supportive atmosphere that promotes learning and growth.

At School 2, students are encouraged to develop a sense of global citizenship and cultural awareness through language learning programs and immersion activities. The school's language program is designed to provide students with a solid foundation in a foreign language, which they can then build upon throughout their schooling journey. This not only enhances their language skills but also broadens their cultural horizons, giving them a greater understanding of the world around them.

Similarly, at School 3, the inclusion of students with diverse backgrounds and needs is a testament to the school's commitment to providing equal opportunities for all students. The school's R-7 Newcomer Program (IELC) is a key component of its inclusive learning environment, providing support to students from non-English speaking backgrounds as they adjust to their new school environment.

Both schools also recognise the importance of developing life skills and values in their students. School 2 places a high value on the pursuit of passions, encouraging students to explore their interests and develop their skills in the arts, sciences, or humanities. The school provides a range of opportunities for students to engage in these pursuits, including dedicated clubs and societies, workshops, and mentorship programs.

School 3, on the other hand, emphasises the development of core values such as belonging, respect, and enjoyment - participation in learning. The school's commitment to developing strong relationships and promoting inclusivity helps students to develop empathy, kindness, and social responsibility - qualities that are essential for success in life.

Both schools also offer extracurricular activities that provide students with opportunities to explore their interests, develop new skills, and make friends. At School 2, students can participate in a range of sports teams, music ensembles, and drama productions. The school's strong commitment to community service is also a unique aspect of its extracurricular program, encouraging students to give back to the community through volunteer initiatives.

Similarly, at School 3, students have access to a range of programs and activities that are designed to meet their needs and interests. From the R-7 Newcomer Program (IELC) to the school's sports and performing arts programs, students are encouraged to explore their passions and develop their skills. The school's focus on providing a well-rounded education ensures that students are not only academically strong but also have a range of skills and experiences that will serve them well in life.

While there are many similarities between these schools, there are also some notable differences that may influence the development of imagination in primary school students. For example, the classroom environments in each school differ in terms of the level of collaboration and peer support among students.

In School 1, the researcher notes a high level of parental support and engagement in their children's education, with 26 out of 28 students participating in the

study. The class is composed of students with different national and cultural backgrounds, promoting diversity and cultural understanding. Students with special needs are included in the class, and the teacher is skilled in providing support to ensure that every student has the opportunity to learn and grow in the classroom. The other students in the class are also eager to help their classmates with special needs, demonstrating empathy, kindness, and willingness to work collaboratively.

In School 2, the classroom environment is characterised by collaboration and a high level of motivation. The class is composed of 25 students, with 21 receiving parental permission to participate in the study. Despite the smaller number of students, the class demonstrates a strong sense of unity and teamwork. The teacher's support, along with the students' willingness to assist each other, ensures that every student is able to succeed and reach their full potential. This is important in the development of imagination, as students who feel supported and encouraged are more likely to take risks, explore new ideas, and think creatively.

In terms of differences, it is clear that the level of collaboration and peer support varies between the three schools. School 1 and School 2 both demonstrate a strong sense of collaboration and teamwork, with students actively working together and supporting each other. In School 1, the presence of students with special needs in the class highlights the importance of inclusivity and the need to provide equal opportunities for all students. The fact that the other students in the class are eager to help their classmates with special needs also demonstrates their empathy and willingness to work collaboratively, which are essential skills in the development of imagination.

In School 2, the level of enthusiasm and curiosity shown by the students is a standout feature. This eagerness to learn and explore new ideas is essential in the development of imagination, as it encourages students to take risks and think creatively. The high level of motivation and support provided by the teacher and students also ensures that every student is able to succeed and reach their full potential.

In contrast, School 3 demonstrates a lower level of collaboration and peer support, with individual work being the preferred mode of learning for most students. However, it is worth noting that the teacher and assistants are working with each child to provide additional support and ensure that every student receives the necessary resources to succeed in their learning. As the students become more comfortable with each other, it is possible that they will begin to work collaboratively and engage in more open discussions in the future.

Another notable difference between the schools is the level of cultural diversity present in each class. School 1 and School 2 both have a diverse group of students with varying backgrounds and cultures. This diversity is celebrated and embraced, with students encouraged to learn from each other and develop a sense of global citizenship. The inclusion of Chinese and second language programs in School 1 and School 2, respectively, also highlights the importance of cultural awareness and the need to prepare students for a globalised world.

In contrast, School 3 does not have as much diversity among its students. This lack of diversity may limit the students' exposure to different cultures and ideas, which could impact their development of imagination. However, the school's R-7 Newcomer Program (IELC) is a key component of its inclusive learning environment, providing additional language instruction and cultural activities to support students from non-English speaking backgrounds.

Overall, the three schools demonstrate varying levels of collaboration, peer support, cultural diversity, and inclusivity. However, each school has its strengths in promoting the development of imagination in primary school students.

# 7.3. The Drawings

In this section, data and analysis are given of the drawing of an animal or creature for each of the three classes of students. Each drawing was tested for its categorisation within one of the four stages of our model (see Figure 1). Various elements of each picture were identified after careful consideration and matched with the qualities that categorise the four stages: reproductive imagination, expression of experience, emotional reality, and crystalised imagination. To prevent unwarranted assumptions, our analysis is cautious about inferring what constitutes a 'good' imaginative classroom. Instead, we focus on what the data explicitly reveals, refraining from imposing subjective judgments. This conscious effort ensures that our interpretations are grounded in observable facts, minimising the risk of overgeneralisation.

The drawings showcased the students' diverse approaches to the task, as well as the influence of popular culture and their own personal experiences. Some students produced exact replicas of existing characters, while others combined familiar elements to create something new and unique. A number of students focused on the emotional aspect of their drawings, creating captivating narratives that evoked strong emotional responses. A select few demonstrated highly developed imagination, creating extraordinary creatures that bore no resemblance to any known characters or animals.

Throughout the analysis, the researcher remained conscious of the importance of representation and avoiding stereotypes in visual art. The researcher realised that the choice of task and evaluation criteria may have inadvertently restricted the students' ability to fully express their creativity and originality. This reflection helped the researcher understand the potential limitations of the approach and the need to adapt methods in future research.

Examining the children's drawings allowed the researcher to gain valuable insights into their imaginative and creative abilities, as well as the factors that may shape their artistic expression. Each drawing and fairy tale is a narrative woven from the threads of personal experiences and emotions. By meticulously examining the subtle details, such as colour choices, character expressions, and narrative arcs, a more profound understanding of the students' imaginative world emerges. This focus on individual narratives ensures a holistic exploration of their creativity. This experience served as an important reminder for theresearcher of the need to nurture and support the development of imagination and creativity in children, as these skills are essential for their personal growth and overallwell-being. The researcher believes that understanding and encouraging these creative expressions will not only enhance the research but also contribute to the betterment of the educational environment for children.

Please see Annexure M for a copy of the instructions for this activity.

# 7.3.1 Drawings of School 1

During data collection, it became evident that the teacher's involvement in the process played a crucial role in helping students understand and execute the task. As the students initially struggled with the concept of creating a non-existent creature without any prompt or sample, the teacher provided valuable guidance, allowing them to approach the task with a broader perspective and more creative freedom.

Throughout the drawing process, the researcher observed that children employed various techniques to aid their creativity, such as using body language and semantic language. They tapped their feet, moved their hands, and murmured words as they envisioned their creatures and brought them to life on paper. Some students even requested additional paper to redo their drawings, demonstrating their determination to

create something they were truly satisfied with.

Upon analysing the drawings, the researcher categorised them into four groups according to the type of imagination and their content and the level of creativity displayed.

#### School 1 students

Total drawings: 26

# Stages of imagination

1. Reproductive Imagination: 13 drawings

2. Expression of Experience: 5 drawings

3. Emotional Reality: 6 drawings

4. Crystallised Imagination: 2 drawings

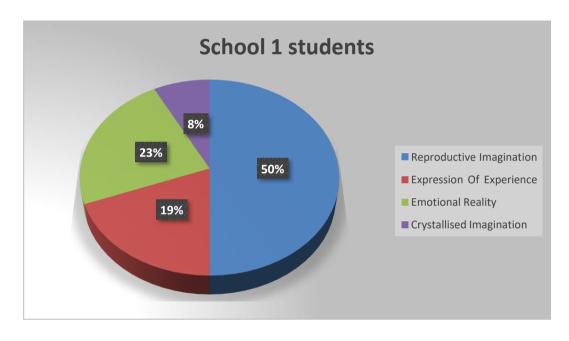


Figure 2. School 1 student's drawings

# 7.3.1.1 Drawings conforming to Stage 1 Criteria – School 1

The first stage, reproductive imagination, featured drawings that were exact replicas of existing characters or a combination of images. This stage included dragons, anime heroes, horror movie characters, and slimes with added elements, as well as drawings with skillfully incorporated backgrounds. However, the researcher excluded a stereotypical fairy-on-a-flower drawing to avoid reinforcing stereotypes and to ensure diversity within the sample. It is worth noting that the reproductive imagination group's drawings did not fully meet the task's requirements to create a non-existent creature.

For instance, the Siren Head drawing (Figure 3), while skilfully executed, was a direct copy of an existing character, which called into question the student's originality and creativity in this particular instance.

The predetermined criteria for evaluating the students' drawings enabled the researcher to systematically analyse the students' imaginative capabilities, at least to the extent to which they achieved the task as set out for this exercise. The reproductive imagination stage showed the students' ability to reproduce familiar characters with great accuracy, but further exploration is needed to ascertain if they possess the capacity for originality and creativity to go beyond reproduction (stage 1) by truly producing a non-existent animal.

Among the drawings, we observed a flower fairy, which exemplifies a traditional and often expected representation in the realm of visual art. However, it is important to note that the researcher deliberately chose to exclude this stereotypical fairy drawing to promote diversity and inclusivity in artistic expression. By doing so, the study encourages students to think beyond common conventions and explore more diverse and unique concepts.

Furthermore, the presence of four dragons in different variations and degrees of drawing, including a fascinating tiger-dragon hybrid, demonstrates the students' ability to reimagine and combine different elements to create their own mythical creatures. This highlights their capacity for imaginative thinking and artistic innovation.

Additionally, we observed seven horror characters inspired by movies and anime, showcasing the students' engagement with popular culture and their ability to reinterpret and adapt existing themes into their artwork. These drawings reflect the students' interests and their capability to infuse their imagination into familiar concepts.

Lastly, two cartoon characters were also included in the selection, demonstrating the students' capacity to create playful and vibrant illustrations that capture the essence of animated characters. These drawings showcase their ability to capture and communicate emotions and personalities through visual representation.



Figure 3. Siren Head the student's drawing

The example of Siren Head, as seen in the student's drawing, demonstrates a complete similarity between the image found on Google and the student's drawing. The student's drawing, like the one found on Google, is a clear representation of the Siren Head character and showcases the student's attachment to that particular character (Figure 4.).



Figure 4. Siren Head Google character

However, this similarity between the student's drawing and the image found on Google raises the question of the student's originality and the level of creativity. The task given to the students was to draw a non-existent animal, and this drawing does not correspond to that task. This is evident in 10 out of 14 drawings, which were included in the first group of reproductive imagination based on the evaluation criteria of this study, as shown in Figure 5.

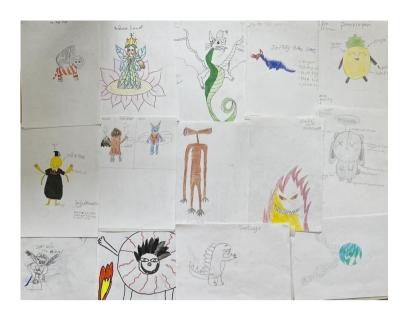


Figure 5. Reproductive Imagination

# 7.3.1.2 Drawings conforming to Stage 2 Criteria – School 1

The second stage in the researcher's analysis, titled "Expression of Experience," found five drawings that showcase the students' ability to combine familiar images to create something distinct (Figure 6). According to the evaluation criteria, these drawings did not feature entirely novel concepts but exhibited a fusion of known elements from the students' environment. Interestingly, all five drawings shared a common feature: each student selected a familiar animal as a base and then incorporated elements from other animals or objects.

In the first drawing, the student combined a dog's body with a single horn and a dragon's fire-breathing ability. This seemingly defenceless animal possesses a hidden potential, which could represent the student's projection of their own personal experiences and emotions onto the created character.

The second drawing features a fusion of a cat and a robot, with an added speech bubble near the mouth to indicate intelligence. The contour surrounding the hybrid character seems to separate it from the surrounding space, which could hold additional significance.

The third drawing in this stage is a bird with massive wings, a helmet, rough skin, a fiery tail, and enormous eyes with vertical pupils. The student's attention to detail in this piece suggests a thoughtful approach to designing the creature's abilities and characteristics.

In the fourth drawing, the student used a horse's body as a foundation and added wings and a large, wide beak. The deliberate choice of colours and patterns for the various components and the overall composition is noteworthy and demonstrates the student's artistic sensibilities.

The final drawing in this stage features a fusion of a dragon and a giraffe. While the dragon's wings and tail remain uncoloured, the giraffe's two vibrant necks and the front of its torso are filled in. The student also included background elements to indicate the creature's extra-terrestrial origin.

Through the examination of the "Expression of Experience" stage, it becomes apparent that the students were able to draw inspiration from familiar elements in their environment and combine them in imaginative ways. The resulting characters not only reflect the students' creativity but also potentially provide insight into their personal experiences, feelings, and emotions.

By observing the artistic decisions made by the students in this category, the researcher gained a better understanding of how children's personal experiences and familiarity with their environment can influence their creative expression. This finding highlights the importance of providing students with a diverse range of experiences and exposure to various elements in order to foster their creativity and imaginative abilities. Moreover, the drawings in the "Expression of Experience" stage demonstrate the students' capability to think critically and make conscious artistic choices when combining elements to create their characters, as shown in Figure 2. This stage of imagination and thoughtfulness suggests that the students have the potential to develop even more original and innovative ideas when provided with the appropriate guidance and encouragement.

These findings underscore the importance of nurturing and supporting children's imagination development. By understanding the factors that influence their imaginative capabilities, educators can create more effective strategies to foster creativity in the classroom. Additionally, the results of this study serve as a reminder of the value of exposing children to a variety of experiences and sources of inspiration, as this exposure can significantly impact their ability to think creatively and express themselves artistically.



Figure 6. Expression of Experience

# 7.3.1.3 Drawings conforming to Stage 3 Criteria – School 1

In the third stage, which is named "Emotional Reality," the researcher identified six drawings that shared a common theme of expressing an emotional response, even though the images themselves were not entirely novel (Figure 7).

The first drawing in this stage combines elements of the "Expression of Experience" stage, as the student creates both an environment and an emotional reality within the image. The scene captures a specific moment in time and action, showcasing the emotional depth of the artwork.

In the second drawing, the student depicted a mother and son elephant with trumpet-like trunks. This drawing is rich in detail and utilises vibrant colours, which adds to the emotional impact of the piece. It could reflect the student's personality or their passion for music, as musical notes emanate from the elephants' trumpet trunks. The drawing is also fascinating from the perspective of the student's personal perceptions.

The mother elephant's eyes appear tear-filled as she plays a melancholic melody, while the son's posture expresses guilt, with his head lowered and body angled. The accompanying text, "Noisy elephant," and the differing tail positions of the two elephants further enhance the emotional response elicited by the image.

In the third drawing, the student employed elements of pre-existing mythical

characters, such as a unicorn, Pegasus, and fairy. However, the vivid colours, intricate details, and fully developed background, complete with sun rays, contribute to the emotional engagement of the viewer. The unconventional colouration of the Pegasus unicorn's body and the detailed water wave emanating from its hoof, along with the waterfall and riverbank stones in the background, create a captivating scene.

The fourth drawing's emotionality is derived from the intense red hues and the student's exploration of their inner conflicts. The student combined a sheep with a devil or an angry sheep, which is further emphasised by the creature's name. The deep red background, uplifted tail, and large, thick horns signify the emotional intensity of the piece. Intelligence is conveyed through the black sunglasses, which also imply self-confidence and importance.

The final drawing in this stage exudes positive emotions due to the form the student chose for their creation – a slime. Typically, shapeless, and adaptable to any surface or environment, the student imbued their slime character with human features, such as hands and a name: "Slime alive." A necklace with a tooth or fang pendant, eyes, and a smile further personify the character. The small horns on the slime's head indicate protective functions, while the gradation of blue hues, from cyan to deep blue, adds to the overall positive emotion.

The "Emotional Reality" stage demonstrates the students' ability to convey emotional responses and personal experiences through their artwork. By exploring their emotions and infusing their creations with personal elements, the students showcased their capacity for self-expression and emotional depth. This insight is valuable for educators, as it highlights the importance of nurturing students' emotional intelligence and creative self-expression.

The findings from the "Emotional Reality" stage emphasise the power of art as a vehicle for self-expression and emotional exploration. By understanding the ways in which students convey their emotions through their artwork, we can better support their emotional development and well-being. Furthermore, these findings serve as a reminder of the importance of providing students with opportunities to engage with their emotions and express themselves creatively, as doing so can have a significant impact on their emotional growth and resilience.



Figure 7. Emotional Reality

### 7.3.1.4 Drawings conforming to Stage 4 Criteria – School 1

In the fourth stage of imagination, which is labelled "Crystalised imagination", two drawings were identified as noteworthy examples (Figure 8). These pieces exhibit the students' ability to create truly unique and imaginative characters by combining elements in unexpected ways.

The first drawing in this stage features a combination of a mushroom and an animal. The student has crafted a carnivorous, aggressive creature, evident in its snarling mouth. The animal's elongated body extends beyond the confines of the drawing, with the head and tail meetings in the foreground and the main body forming an arc in the background. Mushrooms adorn the creature's head and the tip of its tail. The student's description of the drawing highlights the animal's dietary preferences, which include mushrooms and other animals. Interestingly, the animal is wearing a T-shirt that reads, "I love mushrooms." Two subtle elements in the drawing are small horns and tiny eyes, both situated on either side of the creature's wide-open mouth filledwith sharp teeth. The student has utilised familiar elements in a highly unusual manner, demonstrating their developed imagination. The incongruity of these elements, as well as their placement and utilisation in the drawing, piques the viewer's curiosity and encourages them to explore the relationships between these components and the rationale for their connection.

The second drawing in this stage portrays an animal composed of several elements, which come together to form a singular, unique creature. The oval head is adorned with twisted horns, a round mouth filled with sharp teeth, and small eyes. The creature has a round body with disproportionately large wings, a long tail, and two hairy, hoofed legs. The various elements are integrated into the animal in such a way that it is impossible to draw parallels with any existing animals or animated or fairy tale characters. This imaginative composition highlights the student's ability to create truly original artwork.

In conclusion, the Crystalised imagination stage showcases the students' capacity to develop extraordinary, non-existent creatures that leave a lasting impression on the viewer. The images and details in these drawings are meticulously crafted, demonstrating the students' exceptional imagination. The researcher considers these examples particularly inspiring, as they emphasise the importance of fostering imaginative thinking and creativity in educational settings.

Moreover, these findings underscore the potential of art as a medium for nurturing students' imaginative capabilities. By providing students with opportunities to engage in creative activities, educators can help them develop essential skills, such as problem-solving, critical thinking, and adaptability. In a rapidly changing world, nurturing these abilities is of utmost importance, as they will enable students to navigate and excel in various aspects of life.

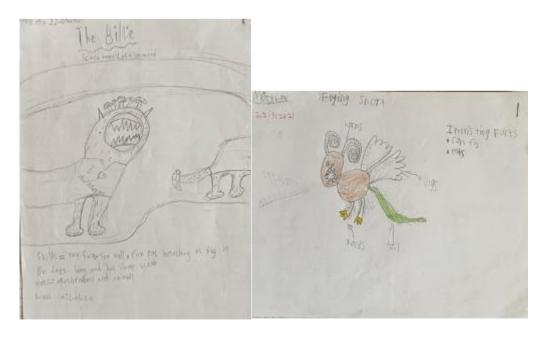


Figure 8. Crystalised Imagination

### 7.3.1.5 Summary of Drawings – School 1

The transition between the four stages of drawings demonstrates a progression in the development of imagination in primary school students. As students move from Reproductive Imagination to Crystalised imagination, their imaginative thinking becomes more refined and advanced.

In the Reproductive Imagination stage, students primarily draw from existing sources, displaying their ability to observe and replicate popular characters. For example, the drawing of Siren Head showcases the student's ability to create a near-perfect replica of a popular character. This stage lays the foundation for further development of imagination as students become familiar with various artistic styles and concepts.

As students transition to the Expression of Experience stage, they begin to merge different elements from their environment and knowledge, creating new combinations and interpretations. For instance, the drawing of a dog with a single horn and a dragon's fire demonstrates the student's ability to merge known elements in a unique way. This stage showcases an expansion in their imaginative thinking as they start to apply their understanding of known concepts to create novel ideas.

The Emotional Reality stage represents a deeper exploration of students' personal experiences and emotions. In this stage, students infuse their drawings with emotional context, adding depth and meaning to their artwork. For example, the drawing of mother and son elephants with trumpets showcases the student's ability to convey emotions and personal perceptions through their art. This stage highlights the growing complexity of their imaginative thought process as they learn to express themselves through their art.

Finally, the Crystalised imagination stage displays the pinnacle of students' creativity and imaginative development. In this stage, students craft entirely original characters and concepts, demonstrating their ability to think beyond the boundaries of existing ideas. An example of this is the drawing of the mushroom-animal hybrid, which highlights the student's ability to invent a completely original creature. This stage signifies the maturation of their imaginative skills as they become capable of generating innovative and original artwork.

7.3.2 School 2

As the relief teacher was present in the class, the Deputy Principal introduced me to

the students. The girls seemed excited and curious. The researcher proceeded to explain

the task and provide all the instructions, prompting the girls to start working with great

enthusiasm.

The students' behaviour, reactions, and approach to completing the task were

quite similar to those observed in the first group. They had numerous questions about

the task, seeking guidance and support for its implementation. However, as with the

first group, the researcher clarified the task by specifying that they needed to create

their own animal based solely on their imagination and desires without replicating

images from books or cartoons.

Despite the clarification, one girl excitedly shared that she was drawing an

animal from her dream, while another meticulously drew a mushroom girl, inspiring

many peers sitting nearby to emulate her example by adding their own details. The

researcher intervened to remind the students that this was individual work, emphasising

that the value of their drawings lay in creating unique and intriguing creatures rather

than in the drawing technique.

To analyse the drawings of School 2 students, the researcher followed a similar

process as with School 1 students, dividing the drawings into four stages based on

distinct features as described in Chapter 4, such as clear copies of existing characters or

combinations of images. The researcher identified eleven drawings that appeared to

copy existing characters without modifications: four fairies, two cartoon characters, and

one heart. The remaining ten drawings were combinations of images, with four

representing a mixture of ideas based on one image and three characters featuring added

background elements and emotional depth.

The researcher placed three drawings in the fourth stage for a more detailed

study, as they immediately stood out from the rest. Although initially uncertain about

including a drawing of an animal called "Unidobird" in this group, the researcher

ultimately decided to leave it in this stage after carefully considering the details.

School 2 students

Total drawings: 21

Stages of imagination

iges of imagination

5. Reproductive Imagination: 11 drawings

150

- 6. Expression of Experience: 2 drawings
- 7. Emotional Reality: 5 drawings
- 8. Crystalised Imagination: 3 drawings

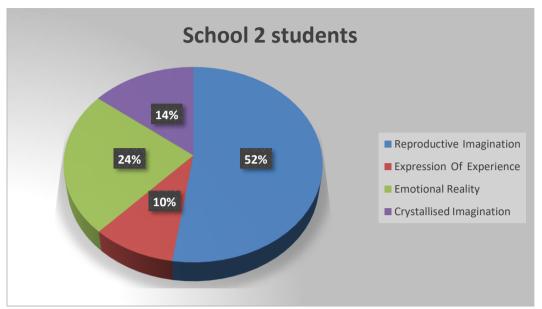


Figure 9. School 2 students' drawings

## 7.3.2.1 Drawings Conforming to Stage 1 Criteria – School 2

Upon evaluating the students' drawings, the researcher categorised seven of them into the first stage of reproductive imagination based on the established criteria of this study (Figure 10).

Four students depicted fairies in various iterations. The first and second drawings showcase a wizard mushroom girl. The student responsible for the second drawing, who sat next to the first, attempted to reproduce her classmate's drawing because she was enamoured with it, despite my instructions. In the third drawing, the student portrayed a fairy witch, as suggested by the pointed hat and cloak. In the final drawing, the student also drew a mushroom fairy with wings, succumbing to the influence of their classmate, which is evidenced by the colours and the mushroom they hold in their hands instead of a magic wand.

The following pattern the researcher identified as an instance of reproductive imagination is the amalgamation of a cloud and a unicorn horn. The student employed an existing image, with the unicorn horn being one of the most popular and frequently used elements. This is evident in the subsequent drawing, where the student combined

a balloon and a rainbow unicorn horn in her creation. The student also added sequins and wings to the drawing. However, this imagery is quite common, often appearing in cartoons and contemporary children's literature. Moreover, this element is incorporated into the drawing of a heart adorned with sweets as a symbol of magic and enchantment.

In addition to the aforementioned drawings, the researcher observed two more that the researcher categorised as reproductive imagination. One student drew a character resembling a popular animated figure, replete with signature details and clothing. Although the student added a few personal touches, such as unique colour choices, the overall character remained faithful to the original design. This demonstrated the student's strong observational skills and ability to recreate an existing character with precision.

The other drawing featured a mermaid character, which is another common figure in children's stories and cartoons. The student's rendition was highly detailed, with intricate hair, scales, and a flowing tail. While the artist added a few imaginative elements, such as a unique pattern on the tail, the drawing primarily adhered to the traditional depiction of a mermaid.

Throughout the process of analysing these drawings, it became clear that the students in this group demonstrated a strong affinity for popular culture and existing characters. Their artwork displayed their ability to observe, remember, and accurately reproduce known images. While their drawings were skilful, they primarily relied on familiar elements rather than venturing into the realm of unique creations.





Figure 10. Reproductive Imagination

# 7.3.2.2 Drawings Conforming to Stage 2 Criteria – School 2

The subsequent stage of imagination, Expression of Experience, is exemplified by two drawings in the dataset (Figure 11,12).

These two drawings were selected based on the evaluation criteria for the Non-Existent Animal project. Students employed combinations of images from their surroundings, cartoons, and well-known fairy tales, expressing their perceptions through colour. The colour scheme in this stage is striking and vibrant, which, according to my observations, is characteristic of the students at this school.

The first drawing in this stage melds a snake and a girl with fiery red hair. In terms of the stages of imagination, this drawing represents a fusion of familiar images;

therefore, the researcher assigned it to this group. However, upon closer inspection, it becomes evident that, from a psychological perspective, the drawing reflects the student's self-identification. A rainbow with an owl situated behind the character symbolises wisdom and guidance, as well as hope for positive outcomes. This juxtaposition creates a contrast in the drawing, as the character herself appears sad and tense, lacking a smile and featuring a black spot on her chest, all while being enveloped in a cloud. Although the content of this drawing undoubtedly piques curiosity, it warrants further investigation beyond the scope of the present study.



Figure 11. A snake and a girl with fiery red hair

The next drawing unequivocally belongs to this group, as it amalgamates existing objects. The central image is a rocket equipped with weapons on both sides, in the form of a pencil that, according to the text on the object, brings death and destruction.



Figure 12. A rocket equipped with weapons on both sides

These two drawings are composites of several pre-existing images, devoid of extraordinary new elements or emotional nuances. Consequently, they were classified as expressions of experience.

Expanding on this analysis, it is worth noting that the students' ability to combine familiar elements in novel ways showcases their adaptive and interpretive capacities. Their imaginative prowess is evident in the seamless merging of disparate images, creating entirely new constructs. This type of imagination demonstrates a significant developmental milestone, as it reflects the students' growing capacity for abstract thinking and their ability to reinterpret and repurpose existing concepts.

Moreover, the psychological underpinnings of these drawings are intriguing, as they reveal the students' internal thought processes, emotional states, and self-perceptions. The creative act of blending known images can serve as a means of self-expression, allowing the students to communicate their feelings, experiences, and identities through visual means. In this sense, the Expression of Experience stage is not only a testament to the students' imaginative faculties but also a window into their emotional and psychological landscapes.

The researcher was fascinated to observe the diverse ways in which primary school students engage with their creativity and imagination. The Expression of Experience stage underscores the importance of nurturing these abilities and providing

students with the necessary support to explore new avenues of self-expression and self-discovery. By offering an environment that encourages experimentation and growth, educators can help students develop the skills and confidence needed to push the boundaries of their imaginations, ultimately cultivating more innovative and original artistic expressions.

# 7.3.2.3 Drawings Conforming to Stage 3 Criteria – School 2

The third stage of imagination, Emotional Reality, is exemplified by five drawings in the dataset (Figure 13).



Figure 13. Emotional Reality Students' drawings

Three drawings within this stage are characterised by rainbow colouring. The student who created the first drawing utilised the body of a horse or unicorn as a foundation, as mentioned earlier, this is a popular and widespread image. The student then combined a mermaid tail, cat's front paws, and bird's rear paws, framing the body with small mushrooms. The raised tail and the drawn smile signify the student's positive mood and cheerful outlook on life. In contrast, the second drawing, despite its rainbow colouring,

is not as exuberant as the first one. The front part of the fish is painted grey, and the smile is drawn with a less confident line. The pointed fin, adorned with a pattern, contrasts with the smoother pink elements, as does the black eye with a red pupil. Moreover, without a fairy tale that describes the story associated with the enigmatic object emerging from the fish, which reads "What is that" it is challenging to decipher the sequence of the images. The third drawing with rainbow colouring comprises four elements. In the first image, the student depicted a combination of a unicorn and bird wings, expressing joy and contentment. To the right of this figure are three clouds, one of which is painted in rainbow colours, similar to the tree on the right. The emotional content is conveyed not only through the choice of colours but also through the small details and precision of each image, such as the unicorn's mane.

The emotional context in this drawing is communicated through the colours and combinations of images selected for the character. The primary image is not novel; the fairy character is prevalent among students of this age. However, the fusion of a fairy with wings and horns in a positive rather than frightening context is innovative. Additionally, the utilisation of the background in conjunction with the characterconveys the warmth of a summer day.

The student who drew this picture initially struggled with the assignment. The researcher observed that the student was examining her classmates' work and hesitated to begin her drawing. Only after releasing their tension through tears and receiving assurances from me that the task's purpose lies in self-expression rather than showcasing drawing skills did the student proceed with the assignment. The drawing is highly emotive. A small character set against a vast space conveys a sense of loss and self-doubt. This is further confirmed by the chosen colour scheme: pastel yellow for the road the character walks on and grey for the setting sun. As with the previous drawings in this group, this figure provides a wealth of information not only for the current study but also for potential future research in the field of children's emotional and psychological well-being.

These emotionally charged drawings serve as an important reminder of the psychological dimensions underlying children's creative expressions. The Emotional Reality category highlights the significant role emotions play in shaping students' artwork, reflecting their personal experiences, feelings, and perceptions.



Figure 14. Emotional Reality

# 7.3.2.4 Drawings conforming to Stage 4 Criteria – School 2

Proceeding to the fourth stage of imagination, Crystallised Imagination, the researcher identified three drawings that showcased students' exceptional creativity in devising entirely original characters by merging elements from previously known images in innovative ways (Figure 15).

The first drawing presents an unusual fusion of a unicorn bird and an animal. The relatively large body features wings, an animal tail, and two unicorn horns. Furthermore, the drawing tells a complete story involving several characters: a mother bird egg and a father bird. As explained by the student who created this drawing, "The egg is covered with cracks, and the father bird is flying around, waiting for the offspring to appear."

The second drawing depicts a creature with two faces and another being coexisting on its head. The non-standard nature of this drawing is expressed not only in the combination of elements used but also in the choice of colour content. The artwork is rendered in pencil, with shading indicating that the animal is covered with multicoloured fur. Rainbow colouring is also employed for the fur, as well as for the mouths and eyes of the animal. The overall appearance of the creature conveys its benevolent disposition, suggesting that it is a positive character.

The third drawing is an amalgamation of seven elements: a tortoise shell, an

animal tail, mushrooms, a cactus, a dragon's mouth, human limbs, and a snail's antennae. Despite the multitude of components, the drawing does not appear cluttered; all parts are harmoniously integrated into this unique creation. The student attempted to soften the protective functions of the animal by adorning the shell with heart-shaped and smiley ornaments. Additionally, the colour scheme implies that danger can only emanate from the creature's orange muzzle and the red tongue, drawn separately from the mouth.

All three drawings portray extraordinary creatures and carry substantial semantic weight, not only due to the elements utilised but also their harmonious combination with colour. These unique creations provide a fascinating window into the boundless creativity and imagination of primary school students, demonstrating their ability to synthesise diverse elements into entirely novel and original characters.

By examining these drawings, we can glean valuable insights into the diverse ways in which primary school students tap into their creativity and imagination to develop one-of-a-kind artwork. The Crystalised imagination stage reveals students' capacity for originality and ingenuity, qualities that are essential for fostering innovation and problem-solving skills in a rapidly changing world.



Figure 15. Crystalised Imagination students' drawings

7.3.3 School 3

The third school presented a slightly different dynamic in comparison to the first two

schools. In this setting, the students appeared to be more inclined towards collaborative

work, as evidenced by their preference to sit in groups of two or three. The students

actively engaged in discussions, using semantic language to share their thoughts and

ideas about the non-existent animals they were tasked to create. Despite the researcher's

emphasis on individual work, the students seemed to find value in the exchange of ideas,

which could potentially enhance their creative thinking processes.

During the activity, a few students experienced difficulties in conceptualising

their non-existent animals and attempted to draw inspiration from their peers' drawings.

The researcher, however, intervened and reminded them of the importance of

independent work. After a brief period of struggle, all students eventually came up with

their unique ideas and immersed themselves in the drawing process.

In contrast to the previous School 1 and School 2, the students at this school

found it challenging to adhere to the given timeline. They required constant reminders

from the researcher to stay focused and on track. This may suggest that students at this

school need additional support in managing their time effectively while engaging in

creative activities.

School 3 students

Total drawings: 17

Stages of imagination

9. Reproductive Imagination: 7

10. Expression of Experience: 2

11. Emotional Reality: 5

12. Crystallised Imagination: 3

160

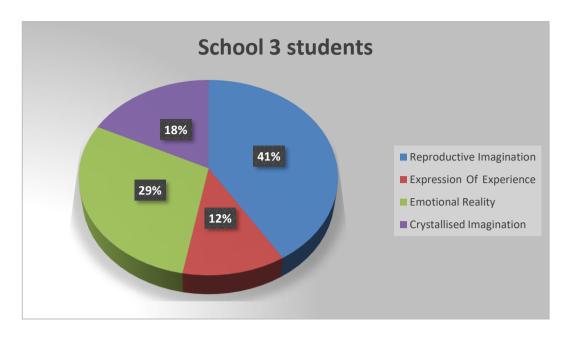


Figure 16. School 3 students' drawings

# 7.3.3.1 Drawings conforming to Stage 1 Criteria – School 3

The researcher assigned seven drawings to the first stage of reproductive imagination due to the fact that students used existing characters without adding other elements or emotional context.

The first drawing is very colourful and is a combination of a hare and a fairy. All selected colours and the background project an illustration of an already existing fairy-tale character. The sun, rainbow and the name of the character "Fluff" symbolise the positive attitude of the student, as shown in Figure 17.



Figure 17. Student's drawing

This character is a copy of an existing image from a Japanese anime, as shown in Figure 18. represents.



Figure 18. Student's drawing

The theme of ball-shaped animals is semi-large in cartoons all over the world. The drawing in Figure 19. is no exception, where the dragon is represented in a spherical shape.



Figure 19. Student's drawing

The next three drawings, as Figure 20 represents, are also borrowed from computer games and cartoons. The first is a copy of the hero of the horror computer game, and the second and the third are from Japanese anime.





Figure 20. Students' drawings

Despite the presence of additional elements in the figure, the main image is a variation of the well-known image of a ghost, as evidenced not only by the character but also by its name.

# 7.3.3.2 Drawings conforming to Stage 2 Criteria – School 3

The researcher included five drawings in the second stage, Figure 21, the Expressions of experience. Three of which the students completed using the drawing techniques learned in art classes and the other two were also done in pencil. However, their unifying factor is the use of already existing elements in recognizable combinations.



Figure 21. Expressions of experience

Under the influence of the art class, three students completed their drawings using the blackout technique. All three drawings are a combination of a dragon and another animal. In the first drawing, the student depicted a dragon with an eye in its teeth and based on the name of the animal, pointing to something. The second drawing, Figure 22, is a combination of a dragon and a unicorn. The student combined aggressive features in the form of claws and a spiked tail with soft wings and a smiling muzzle with large ears crowned with a unicorn horn from which a glow emanates.

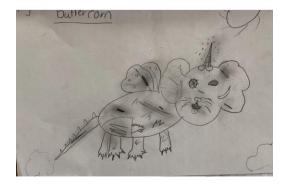


Figure 22. Student's drawing

In the third drawing, the student combined the dragon and the bee. The body

and wings of the bee are connected to a long tongue and thick little legs. In the third drawing, the student combined the dragon and the bee. The body and wings of the bee are connected to a long tongue and thick little legs. The animal is drawn on a flower, which corresponds to the standard associative series "bee - flower" and is an expression of experience, therefore this drawing was assigned to this group. The next two drawings could be attributed to the first type of imagination, but the researcher noted that the students, using already known images, modified them. Animals are similar to existing ones, but at the same time, they contain elements that do not allow for an exact definition. In the first drawing, the student depicted a cow with a hare face and an elongated lower part. The student also depicted animal waste in the form of burning balls. Perhaps the last element was added as a means of protection. In the second drawing, a student has created a twelve-legged cat-faced or tiger-faced animal with a toothy, smiling mouth resting on a bed. The figure clearly shows that the animal lies on its back in a defenceless state, but the presence of a large number of teeth suggests otherwise.

# 7.3.3.3 Drawings Conforming to Stage 3 Criteria – School 3

In the third stage of emotional reality, Figure 23, four drawings are collected that are distinguished by expressiveness expressed by the elements of the drawing and colour content. Three drawings of this stage are united by emotional content. When looking at each of them, an emotional response arises.



Figure 23. Emotional reality

At first glance, in the drawing depicting a pencil, the student used only two images: a pencil and a hare, as Figure 24. shows; however, upon closer examination, it can be seen that the student glued the threads to his ears and used the colour filling in such a way that it evokes affection and a warm wave of positive emotions. This drawing confirms the stage of Emotional Reality of the imagination identified by Vygotsky since this construction of the student's fantasy affects feelings and does not correspond to reality, but the feeling itself is real and really experienced, giving it the status of reality.



Figure 24. A pencil and a hare, student's drawing

The second drawing in this stage illustrates positive emotions and communication. At first glance, it is impossible to single out the fundamental element. This drawing is a combination of several elements such as a large body with human legs, large ears, wings, and a horn. On the body of the animal, one can see a T-shirt with an inscription, as Figure 25. shows. The darkened space on the T-shirt is signed "Ilike it" with arrows, but under the shading, it is impossible to make out what is writteninside. The liveliness and emotionality of the drawing is conveyed by the effect of smoke, clouds, and a smile. The whole image of the animal conveys strong emotions that are embodied in this image.



Figure 25. Student's drawing

In the third drawing, Figure 26, emotional expression is also felt, despite the sufficient evidence of the images used. The student combined a tiger and a dragon. However, the posture of the animal, the pose of the body, the smoke from its mouth, and the drawing of details made it possible to classify this drawing as a third stage of imagination. The animal's body, paws and tail are covered with either hard hair or spikes, paws in the form of claws and even wings have pointed fragments, which indicates a strong emotional stress of the child.



Figure 26. Student's drawing

The last drawing, Figure 27, in this stage evokes a feeling of empathy. The student combined a rat and a lizard in his drawing, creating an interesting, unusual, and harmonious combination. The pose of the animal, the half-turn of the head and the gaze convey the whole gamut of feelings of loneliness. This feeling is enhanced by the absence of a background. There is a feeling that the animal wants to hide, that it is frightened by something.



Figure 27. Student's drawing

# 7.3.3.4 Drawings Conforming to Stage 4 Criteria – School 3

One drawing of the fourth stage of Crystallized imagination caused many doubts in the selection process, Figure 28. The researcher analysed many references to various combinations used in the drawing and came to the conclusion that this drawing can be distinguished by originality and unusual image. On the one hand, the students used familiar elements in their drawing: a snake, a rabbit, a cat, and a dragon. On the other hand, the drawing is a complete story as the student drew the background and added more elements to the drawing: horizon, clouds, sun, and trees. Also, one can see the emotional component in the form of shading showing the rise of the animal as well as a halo of trembling air above the head. In this drawing, emotion was embodied in an image corresponding to the feeling of flight, height, and freedom. Also, this drawing reflects original associations, an unusual way of depicting movement, and is subjectively new from the point of view of the student and objectively new from the point of view of the researcher.



Figure 28. Student's drawing

### 7.3.4. Conclusion for drawings analysis

The researcher found that the exploration of primary school students' creativity and imagination through their drawings was a profoundly insightful and rewarding experience. By categorising the drawings into four distinct stages – Reproductive Imagination, Expression of Experience, Emotional Reality, and Crystallised Imagination – the researcher was able to gain a comprehensive understanding of the students' cognitive and emotional development, as Figure 29 shows.

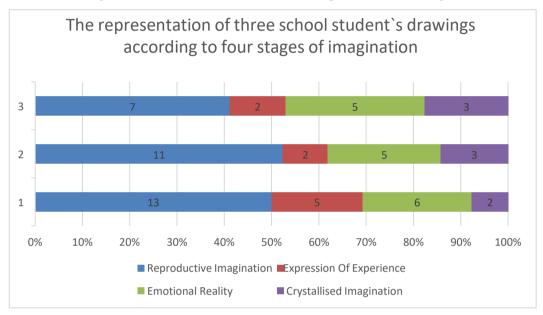


Figure 29. The Representation of three school students` drawings according to four stages of Imagination

Reflecting on the process, the researcher recognises the importance of considering the context in which these drawings were created, as it can have asignificant impact on the students' creative output. Their social, cultural, and educational backgrounds, as well as their individual experiences and personalities, havelikely played a role in shaping their artistic choices.

The researcher also acknowledges the potential limitations and biases that might have influenced the interpretation of the students' drawings. As a researcher, it is important to remain objective and open-minded in the analysis, but being mindful of personal preconceptions and experiences that could inadvertently shape the understanding of the students' work is crucial.

Furthermore, it is recognised that imagination is complex and multifaceted

construct that cannot be wholly captured or defined by a single study or set of criteria.

Upon comparing the students' drawings from the third school with those from the first two schools, several similarities and differences emerged in terms of their creative processes and the imagination types reflected in their works.

### Collaborative and Individual Work:

While the students in the first two schools mainly preferred to work individually, the students in the third school demonstrated a stronger inclination towardcollaborative work. These students found value in discussing and sharing their thoughts and ideas, which might have contributed to the enhancement of their creative thinking. In contrast, the students in the first two schools were more focused on individual work, relying solely on their own imaginations without actively seeking input from their peers.

### Creative Struggles:

Similar to the first two schools, some students in the third school experienced difficulties in conceptualising their non-existent animals. However, the level of creative struggle appeared to be slightly more prominent in the third school, as evidenced by their attempts to draw inspiration from their peers' drawings. In all three schools, the researcher emphasised the importance of independent work, eventually leading the students to come up with their unique creations.

## Time Management:

A key difference between the third school and the first two schools was the students' ability to adhere to the given timeline. Students in the first two schools managed to complete their drawings within the allotted time, whereas students in the third school required constant reminders and additional time to finish their work. This may indicate that students in the third school could benefit from additional support in managing their time effectively during creative activities.

# **Stages of Imagination:**

Although the students from all three schools exhibited diverse imagination stages in their drawings, certain patterns and tendencies emerged. The students in the third school, with their collaborative approach, seemed to draw more inspiration from popular culture and their surroundings. This was evident in the increased number of drawings in the Reproductive Imagination and Expression of Experience stages. On the

other hand, students from the first two schools appeared to have a slightly higher proportion of drawings in the Emotional Reality and Crystalised Imagination stages, possibly reflecting their greater reliance on individual creativity.

Overall, the comparison of the students' drawings from the three schools reveals subtle differences in their creative processes, preferences for collaborative or individual work, and time management skills. Furthermore, the patterns in the stages of imagination exhibited in their drawings provide valuable insights into the factors that may influence their imagination. This information can be utilised by educators and researchers to better understand and support the creative development of primary school students, as well as to tailor educational practices to cater to the diverse needs and preferences of students in various settings.

### 7.4. Fairy Tales

Fairy tales created by students amaze the reader with their variety of images and reflect not only experience and knowledge but also their perception of the world and their relationship with parents, adults, and peers. The collected material can be called absolutely unique and provides a huge resource for this study.

The fairy tales of the students of the three schools were found to have their own characteristics depending on the surrounding factors, foremost of which were their subjects and teachers. This effect was most clearly expressed in the works of students from School 1 and School 3. In the first case, the students' work has a clear structure since the teacher used this activity as preparation for NAPLAN. In the second the use of ambitious vocabulary related to the History class.

Most of the works reflect emotional involvement. In 80 per cent of the works, colourful emotions or experiences of students were evident that it was found were transferred from their real world to the characters they created. It should be noted that, that despite instruction, the non-existent animal created in the drawing did not always become the main character. Often, students saw themselves as the protagonist and met their characters as the story progressed. Some identified their character as an antagonist, but by the end of the tale, they showed positive changes in the character's character and found a happy ending to the story. In general, the majority of students showed a desire for a positive ending, which is typical of the ideas of this age. Despite all the negative and sometimes terrible events that take place in a fairy tale, in the end, everything comes

to a happy ending. The researcher noted that the cuter the character created by the student in the drawing, the scarier the fairy tale was, and vice versa, a positive fairy tale is attached to the scary character. This is especially evident in students` works of School 2 and School 3.

#### 7.4.1 School 1

The efforts of the teacher at this school are visible directly through the work of students. Firstly, the direct writing was preceded by a work plan and the main events ofthe tale. There is a clear structure, and there is a detailed description of the characters and the scene. The researchers were struck by the volume of written works, the content, and the variability of the vocabulary of students.

Total number of fairy tales: 26

Reproductive Imagination: 8

Expression of Experience: 13

**Emotional Reality: 4** 

Crystallised Imagination: 1

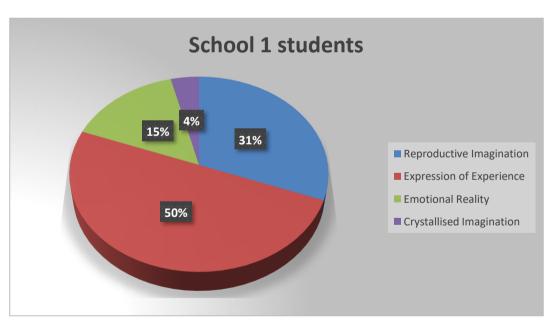


Figure 30. School 1 students` fairy tales

The first stage of Reproductive imagination includes eight fairy tales. All fairy tales included in this stage have become a kind of free retelling of cartoons, anime, and films: spooky cartoon cat, the Fire Monster, Mrs Beddy, Halloween Monster, Siren Head, and Yellow Alien. The drawings accompanying these fairy tales also depict the

same stage of imagination, where students copied existing images from the original sources. For the most part, the students chose horror stories and adhered to the already known content, with the exception of their version of the words in the characters' lines. This indicates a significant reliance on reproducing familiar images and content rather than generating entirely original ideas, characterising the early stage of Reproductive imagination.

The second stage representing the Expression of experience includes thirteen fairy tales. In this stage, the students demonstrated a level of imagination where they incorporated elements not entirely new but rather used a combination of images known to them from the outside world. They employed already familiar characters and plots but cleverly altered the storyline, events, and behaviour of the characters. The resulting fairy tales sounded like answers to the question: "What would happen if." The creative development of events, derived from the students' own experiences and insights, allowed the researcher to categorise these tales as belonging to the second type of imagination. This stage represents a significant step forward from the early Reproductive imagination, as the students began to infuse their narratives with unique twists and variations while drawing from their existing knowledge and observations.

As a confirmation of the conclusions made, the researcher cites several of the most striking examples.

A fairy tale called "The Hole at the End of the Rainbow" (Figure 31) tells the story of two friends who decide to explore the rainbow. The student indicated that the events took place somewhere in the year 1800, of an unknown chronology. The heroes of the fairy tale felt the wind, saw a hole, and fell into it, landing in the sea. A beautiful white horse with wings (a drawing character created by a student) rescued them and brought them to Rainbow Island. They had a great time, and after that, a horse named Watery carried them back home.

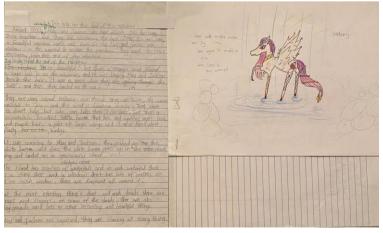


Figure 31. "The Hole at the End of the Rainbow"

Another striking example of this stage is the tale of Pineapple and Apple from the Fruit Kingdom, which got through the portal to the Vegetable Island (Figure 32). There they met the aggressive Broccoli and the kind Potato who helped them get to the royal castle and return home.

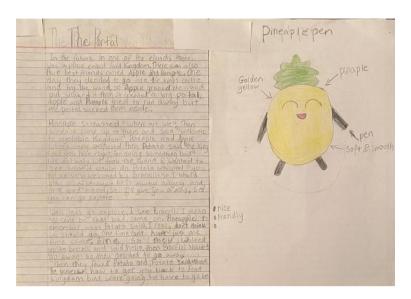


Figure 32. "The portal"

Several tales in this group are dedicated to special agents and their missions. So, in a fairy tale called Smart Mission (Figure 33), a student talks about Bob Jeff the Cat, who in 3055 was a famous Spacemoorobat cat and everyone loved him, but he had an enemy Wizbobmoomaster. The villain wanted to capture all smart cats like the main character. He put his plan into action, but one cat escaped and informed the main character about it. He came to the scene of the crime and saw that one of the kidnappers was eating a sandwich and leaving crumbs. It was on these tracks that he found the stolen cats, saved them, and the villain was sent to prison.

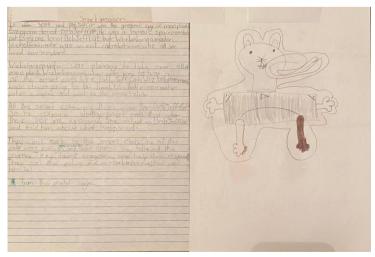


Figure 33. "Smart mission"

A fairy tale called The Necklace (Figure 34) talks about Violet of Planteria, the planet's queen and keeper of the magic stone was Lea. The main character went on a mission to uncover the evil wizard Black Leaf. The wizard stole the gem, but Violet was able to return it to the queen and the Black Leaf was sent to a terrible planet called Jailer.



Figure 34. "The Necklace"

A characteristic feature of these tales is the victory of good over evil and the fact that the villains are sent to prison as punishment.

The third stage of Emotional connection is represented by four fairy tales. Alongside the captivating narratives, the drawings for these fairy tales showcase a stage of imagination where the students created something quite original with elements of fantasy, emotional depth, and vivid colours. Although the images are not entirely new, they reflect the students' unique interpretations and creative expressions. The tales of this stage revolve around the heroes chosen by the students, serving as a medium to share their own experiences related to themes of friendship, acceptance within the school community, and dynamics within their families. This stage highlights the students' ability to infuse their stories with heartfelt emotions and imaginative flair, thus demonstrating significant growth in their imaginative capacities compared to the previous stages.

In the Hidden Kingdom (Figure 35), a student talks about a cute little dragon named Glory who was born on the brightest night and was graceful and brave. She was bullied by her guards and called a lazy fruit eater. One day one of the tunnels collapsed

and she ran away from them. She did not know where to go and landed in the forest. There, Glory met four dragons, among whom was Jeff. They pushed her into the tunnel and without fear she found herself among the flowers and chirping birds. There she learned that all the dragons here are lazy and love fruits, and therefore they do not have a queen, since no one wants to do this. Her new friends told her not to accept the challenge and helped her in her kingdom. The queen perished in the lava along with her guards by magic.

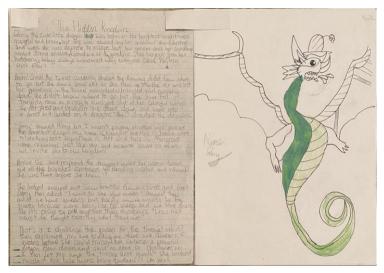


Figure 35. "The Hidden Kingdom"

In the following fairy tale, Seastus's Attack (Figure 36), the student shows the experiences and the process of realising himself as a person, as well as his actions.

So, in a fairy tale, a scientist created a monster based on a bird and sent him to destroy the city. However, a monster named Seastus, seeing what he had done, stopped and began to help people rebuild the city and became a famous scientist.

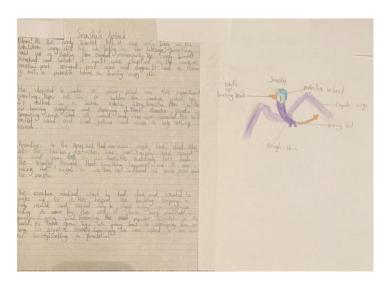


Figure 36. "Seastus's Attack"

In the next fairy tale, the girl saved Unidog (Figure 37), a creature that combined a unicorn and a dog. Her whole family died saving him, she lived her life with him next to her sisters' graves.

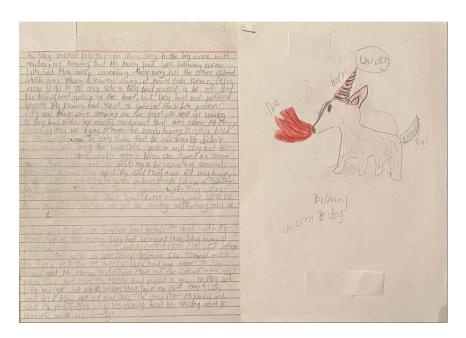


Figure 37. "Unidog,"

The fairy tale Frotomos Escape (Figure 38) talks about a lonely monster who was caught, put in a test room, and shown to children and adults. Children were forbidden to touch the glass with their hands, but one child broke this rule, and the monster broke the glass with his head. He jumped out of the test room, and everyone fled, only one boy remained standing. The monster sniffed the boy's outstretched hand and turned to the other two boys. They ran into the test room with the monster behind them. The story ends with a sentence of wisdom: "The kids learnt something today, never touch the glass".

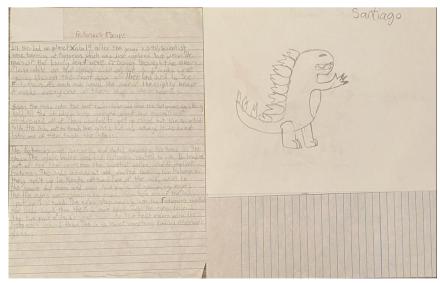


Figure 38. "Frotomos Escape"

The following fairy tale "Flying Short" (Figure 39) is about a boy who was helping his mum with the dishes and heard a noise from the forest. He went there, caught a monster, and took it to the police to avoid harm to others. The only thing he was worried about: "there could be more monsters like that".

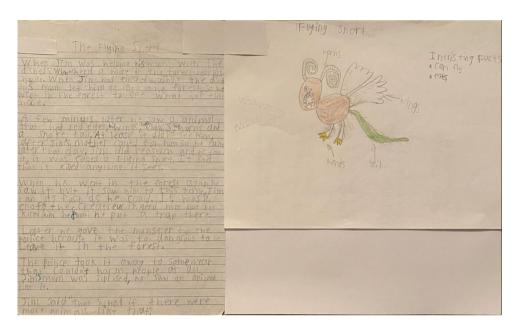


Figure 39. "Flying Short"

A distinctive feature of fairy tales in this stage is the ending. Students use an expression of wisdom or events unfold in such a way that the bad characters find their punishment as a result of their own actions without the intervention of the good character.

Only one fairy tale "Who was it?" (Figure 40) was considered to refer to Crystalised imagination.

This fairy tale has a fairly simple plot, but the drawings created by the student showcase a unique creature and bring the story to life from the perspective of the researcher. The tale follows the journey of Roggyi and two of his friends as they embark on a rocket trip to the moon, equipped with snacks for their adventure. Upon landing on the moon's surface, they encounter a colossal creature that doesn't resemble any animal they are familiar with, yet some parts seem oddly recognisable to them. Intriguingly, this enigmatic creature extends a warm invitation to dine together at its abode, adding an element of curiosity and wonder to the narrative. The illustrations of the extraordinary creature and the vivid portrayal of the moon adventure make this fairytale a captivating and imaginative tale, showcasing the student's creative flair and inventive storytelling skills.

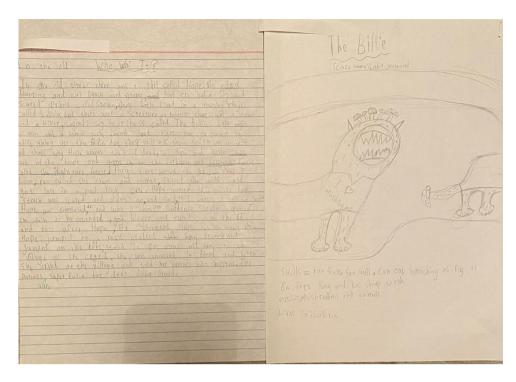


Figure 40. "Who was it?"

### 7.4.2 School 2

Students at this School 2 are distinguished by the freedom of expression of their thoughts and a more relaxed attitude towards this task. Since they were not expected to produce academically significant results, they were completely focused on the creative component. Thus, the works of these students may be inferior in terms of structural construction and vocabulary, however, the embodiment of mental images and the context are conveyed in full.

Total number of fairy tales: 21

1. Reproductive Imagination: 8

2. Expression of Experience: 4

3. Emotional Involvement: 6

4. Crystallised Imagination: 3

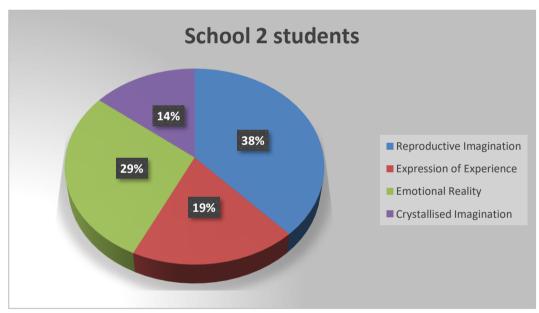


Figure 41. School 2 students` fairy tales

In school 2, when analysing fairy tales, eight students' works were assigned to the reproductive stage of imagination. The students not only utilised existing characters of forest fairies but also incorporated events that closely mirrored already known stories involving these characters.

Although the process of copying images did not occur due to the lack of visibility and the nature of individual work, the fairy characters depicted in the drawings influenced the similarity of events described in the students' fairy tales. The central

storyline consistently revolves around the main character, typically portrayed as a girl, as they identify strongly with these fairy figures. The narrative typically follows a walk in the forest by the main character, leading to a meeting with the fairy depicted in the illustration. In the second version of the tale, the plot delves into a fragment of the fairies' lives, with one of the fairies serving as a projection of a student's imagination. The drawings and fairy tales align closely with the reproductive stage of imagination, as the students draw upon existing imagery and well-known storylines, albeit with their creative touch. This stage demonstrates the beginning of imaginative storytelling, where familiar characters and events serve as a foundation for the students' imaginative endeavours. As they progress further, they are likely to explore more diverse and original elements in their imaginative expressions.

In the second stage, reflecting the expression of experience, the researcher identified four fairy tales. The drawings accompanying these fairy tales also depict an almost identical stage of imagination. The main characteristic of these tales is the mixture of events borrowed from different sources, such as cartoons, books, films, and elements from the students' environment. The students creatively combine these diverse influences to craft their imaginative narratives, weaving a tapestry of familiar and newly imagined elements into their stories. This stage marks a significant progression from the earlier stages, as the students exhibit a growing ability to infuse their own experiences and observations into their creative works, resulting in narratives that are uniquely reflective of their individual imaginations and worldly influences. As they continue to explore and refine their imaginative capacities, these students are likely to further expand their creative horizons and develop increasingly original and captivating storytelling skills.

So, a fairy tale called "Bottroter" (Figure 42) talks about a kitten and its evil owner who conducted experiments on animals. The owner put the kitten in control of the monster he created and ordered the destruction of Superville. The kitten tried to figure out how to save the city and disappear, but the owner caught it. It is surprising that in some fairy tales like this, students use a sad ending. The idea of this story has been repeatedly used by the creators of cartoons and anime.

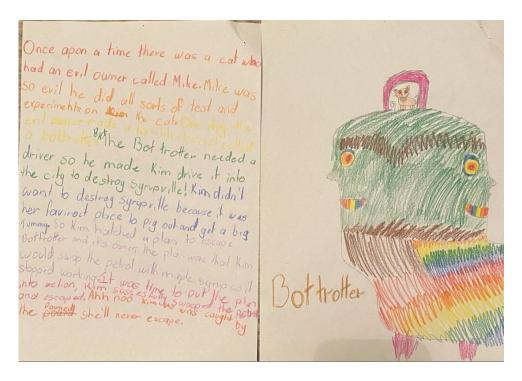


Figure 42. "Bottroter"

The next fairy tale is called "Animal Land" (Figure 43). The fairy tale tells how three creatures and Aminaliam went into the forest and found a crystal. Arriving home, Aminaliama had issues with her stomach. She remembered the crystal found in the forest, ate it, and recovered. The idea of finding a crystal as a magical object is not new, but the use of a crystal for recovery by ingesting it seemed to the researcher an unusual solution.

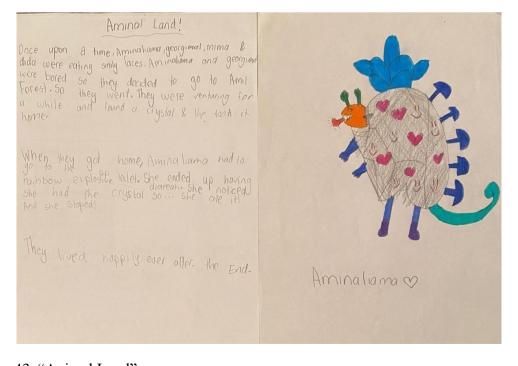


Figure 43. "Animal Land"

The next student used a pencil as their main character (Figure 44). The student gave his character positive features by combining a pencil and a hare with the inherent kindness and curiosity of the second. Therefore, the fairy tale created with the participation of this character is kind and sweet about how the bunny got lost in the forest.

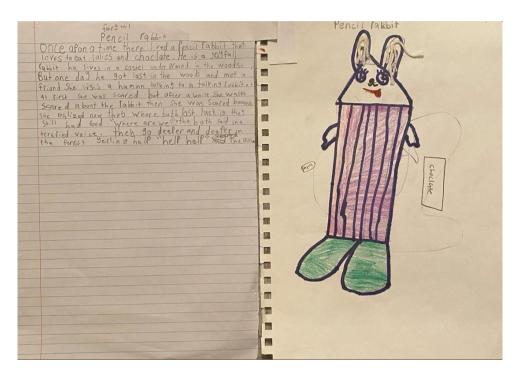


Figure 44. "Pencil Rabbit"

The last fairy tale is called "Blob land" (Figure 45). It tells about a blob called Sparkles and her adventures with her friend Liana when they got to the land full of unicorns. Nevertheless, they enjoyed spending some time there with unicorns, "they were happy to be back HOME".

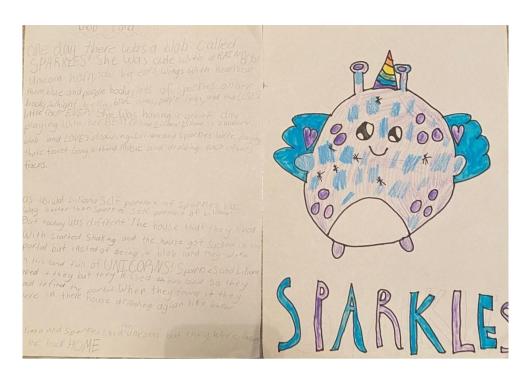


Figure 45. "Blob land"

The group belonging to the third stage of imagination, with a defining component of emotional involvement, included six fairy tales. The drawings accompanying these fairy tales also exhibit an almost identical stage of imagination. All these tales are united by the emotions conveyed by the students, reflecting themes of friendship, relationships with parents, and the journey of self-discovery within society. The students' illustrations vividly capture the emotional depth of their narratives, portraying heartfelt connections and personal experiences that resonate with readers. This stage represents a significant advancement in the students' imaginative capacities, as they skillfully infuse their stories with genuine emotions, making their fairy tales compelling and relatable. As they continue to explore the realms of imaginative storytelling, these students are likely to further refine their ability to express intricate emotions and create captivating narratives that leave a lasting impact on their audience.

In the first fairy tale (Figure 46), a student made the main character menacing by endowing it with a weapon and the aggressiveness inherent in such a character. The whole tale is built on direct speech but perfectly conveys the content. It's about how a negative character has these traits just because he needs a friend "I am....LONELY" and after gaining one "I will be your friend" becomes a good character: "P.S. if you are wondering, Pencilman is a good guy.....for now". This tale vividly reflects the desire of the student to find a friend in the real world. Perhaps, this explains the use of weapons and aggressive qualities in character creation.

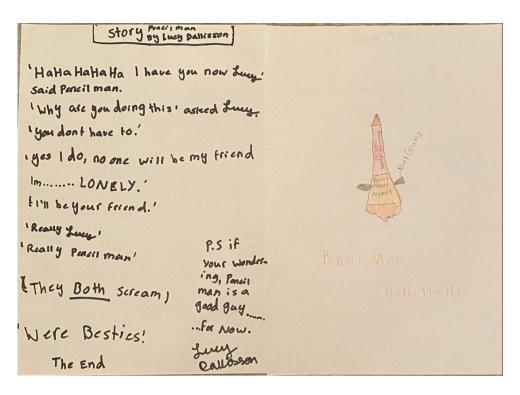


Figure 46. "Pencilman"

The second fairy tale represents the same topic. The student feels lonely, and it finds a reflection in the story of a little gremlin (Figure 47). The whole story is filled with personifications of the psychological state of the student. First of all, the story begins with a description of the night and the storm that broke out over the sea, and against the backdrop of all this, a small gremlin comes out of the sea. With the onset of the morning, everything changes, and he goes out to people who, for the most part, scatter from him, but some remain, and they become friends. The student's subconscious hope that the dark time of loneliness will be replaced by a bright one in the form of friendship causes an irresistible feeling of empathy, which determines the type of imagination expressed in this fairy tale.

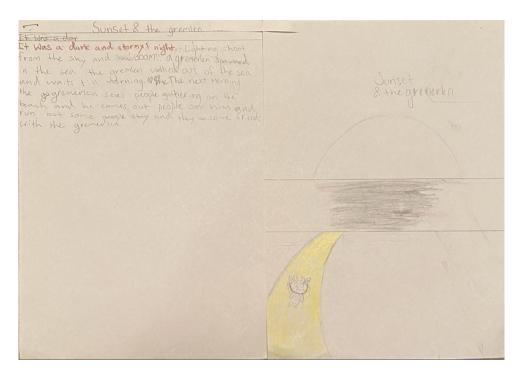


Figure 47. "A little Gremlin"

The following four tales are united by a common motif of students' feelings about their relationship with their parents.

"Rob Jack" is a story about a lonely furry monster who had no friends because everyone was afraid of his family (Figure 48). He ended up meeting a "Someone named Kerby" and they became friends. She was not afraid of his family, but his family did not allow him to be friends with her. However, in defiance of the family, Grub stayed with his friend.

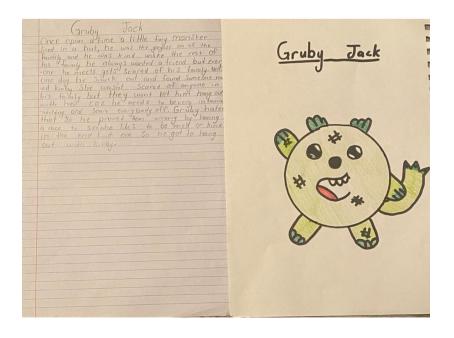


Figure 48. "Rob Jack"

"The awkward vacation to California" is the fairy tale about a daughter and a father who did not let her go so far for a vacation (Figure 49). She could not believe that at the end he bought her tickets until she realised herself on the plane and noticed as it mentioned in the last sentence: "this small human that pooped and farted". The last sentence appeared occasionally at the end of the fairy tale which seemed to be out of any magic components. It is difficult to judge whether this sentence was added to introduce a magical component or as a reaction to the resolution of the situation with the father. In the second case, it turns out that the resolution of the conflict is equated by the student to something magical and ambiguous. In any case, the tale evokes a certain emotional response and affects the feelings of the reader.

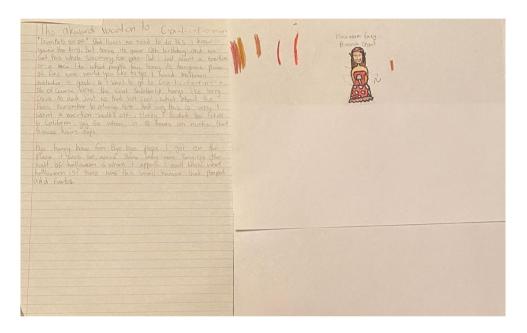


Figure 49. "The awkward vacation to California"

In the next fairy tale, the student chose as the main character a fish that can swim, fly, and sew (Figure 50). She has to sell things because her family is poor. Her left eye can shoot, which allows her to defend herself at school. However, she has good friends and wonderful parents who passed on her abilities to her, so she is happy.

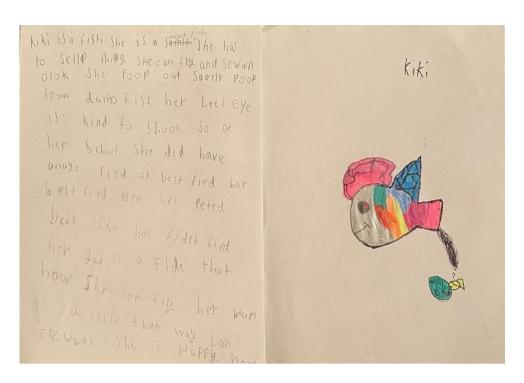


Figure 50. "Kiki"

The following short tale about a unicorn named "Beautifull" could be classified as the second type of imagination, but the content evokes the same emotional response as the three previous tales (Figure 51). The plot is quite simple. The unicorn quarrels with his parents because of the untidy room and runs away into the forest full of dangerous animals. Between the lines and thanks to the chosen adjectives, one can feel the inner feelings of the author: "A huge fight with her parents", "the dark forest", and "dangerous creatures".

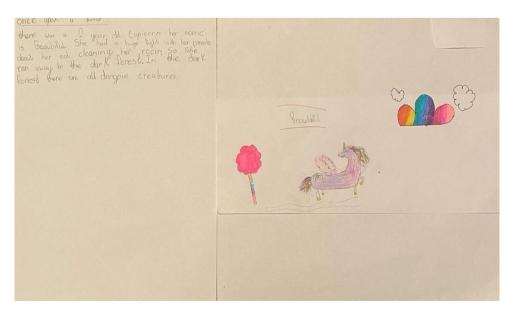


Figure 51. "Beautifull"

The fourth stage of the Crystallised imagination included three fairy tales created by the students of this group, they absorbed not only a clear structure and clear presentation but also a special individuality and uniqueness.

The first tale talks about a family where mom is a dog and dad is a bird, Jake, and Isabella, and they have a Unidobird (Figure 52). She grew up and got pregnant even though she never had a boyfriend. She gave birth to a creature named Gaby. Their baby grew up and never had children. This tale talks about the student's ideas about marriage and family relationships. The tale describes in detail the parents' trip to the hospital and their disputes about who will be born to them. Also, the combination of different animal species is of sincere interest to the reader.

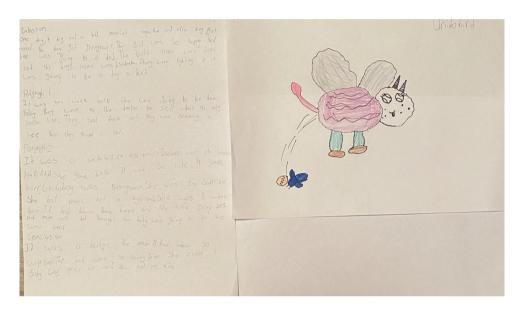


Figure 52. "Unidobird"

The following tale is filled with a free and unlimited flight of the student's imagination. It all starts in an ordinary house and the story is told on behalf of a girl named Molly (Figure 53). One morning her parents told her that today she can do whatever she wants because anything is possible. She jumped, took off and met pink frogs who asked in perfect English how she was doing. She then jumped into a tree and turned into a monkey. Then she saw an ice cream shop and met a unicorn seller (which is shown in her drawing). They became best friends. Like the drawing, a fairy tale is filled with vivid emotions, events, and images.

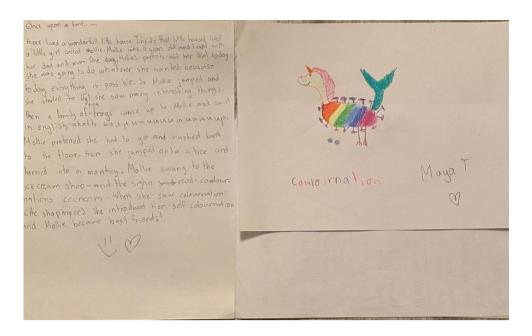


Figure 53. "Molly"

The last fairy tale in School 2 was sad, but the presentation of events is intriguing, and the end of the tale discourages the reader. The eloquent title of the tale "The Killing Ship" speaks for itself (Figure 54). So, the main character of the tale is a homeless creature named Rainbow. She was sick but could not go to the hospital for help because she was a beggar. One woman offered her help and brought her to the ship whose name she could not read, thinking that everything would be fine now. A few days later, they stopped, and all the passengers were told to go up to the bow of the shipand jump into the sea. She did it and died. But the last sentence at the end of the story is striking: "She is dead now. At least it cured her disease".

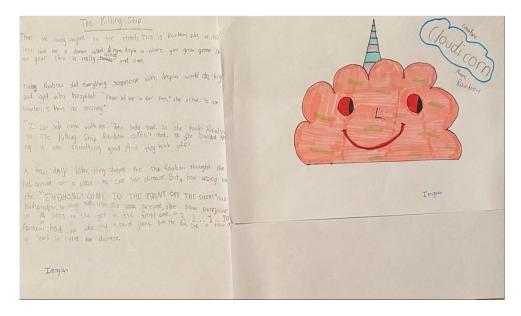


Figure 54. "The Killing Ship"

## **7.4.3 School 3**

In the fairy tales created by the students of School 3, there is a strong influence of the emotional component and the experience gained. Just as the Art class influenced the drawings, the History class influenced the creation of fairy tales. Many of them contain complex words acquired apparently in this lesson.

Total number of fairy tales: 13

7.4.3.1 Reproductive Imagination: 3

7.4.3.2 Expression of Experience: 4

7.4.3.3 Emotional Involvement: 5

7.4.3.4 Crystallised Imagination: 1

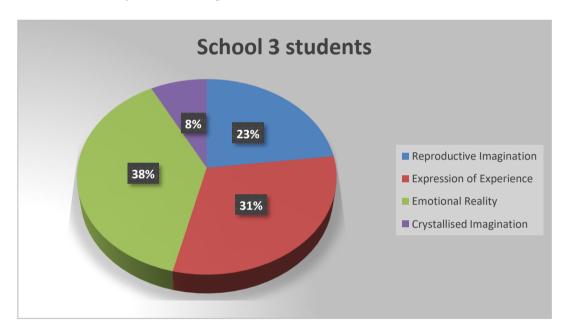


Figure 55. School 3 students` fairy tales

During the analysis of fairy tales, it was revealed that three students could not write a fairy tale; they had copied the existing stories. Four students repeated already existing stories with a few modifications, which allowed the researcher to attribute their work to the second stage of imagination. The fairy tales of the next four students reflected the use of the experience gained in history lessons. This is supported by the use of words such as: "declared war without votes", "demolish a whole suburb", "Catdorse army", "couldn't get the town rebuilt" or "from generation to generation", "the city was destroyed", "high tech weapons".

The third stage included the largest number of works of the third stage of imagination in relation to other stages. The abundance of direct speech, metaphors, onomatopoeia, and simile to convey the emotions and feelings of the characters. This is supported by emotive language: "bad guys", "yeeted", "I never give up", "was worried", "wanna be friends", and "she liked bananas ....I didn't like bananas". Moreover, the content of fairy tales reflected students' feelings.

For example, the story is about a faceless creature (Figure 56).

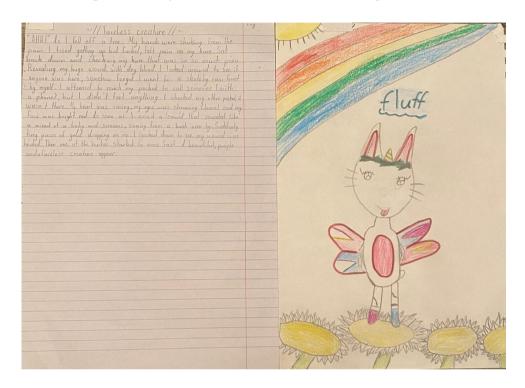


Figure 56. Student's fairy tale

Almost every sentence in this tale conveys the emotional state expressed from the main character's perspective: "felt pain", "my heart was racing", "my wound was healed" and "my eyes were streaming (tears)". Another bright example of emotional connection is the fairy tale about a girl who met a Buttercorn (Figure 57). The girl didn't like bananas and the creature liked them, but they found a compromise by making a salad with their preferences: "invited me to eat some banana", "I didn't like bananas", and "we ate happily". The fairy tale is full of emotive language: "thump!", "I was the only one who saw it", "she got scared".

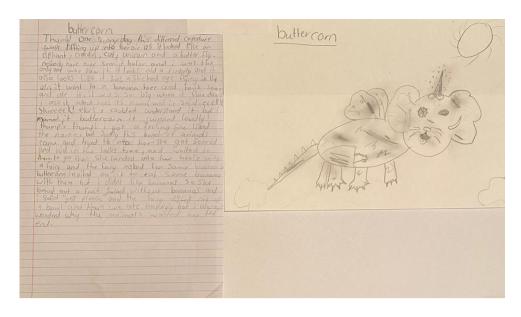


Figure 57. "Buttercorn"

One more example is "The ground monster" (Figure 58). The fairy tale tells how two boys met a big giant mythical creature. The Emotional connection is shown by a number of exclamation marks and reported speech: "James!!!", "AHHH!!!". The story is about friendship and loss as the boys made friends with that creature and brought it home, but it died from a rare sickness the day after. It should be noted that students often write about the death of one of the characters or their loved ones.

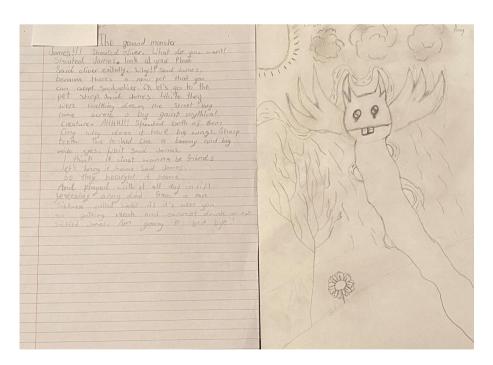


Figure 58. "The ground monster"

Here is one more example of a story where the main point is referred to the death (Figure 59).

The story is about a girl who had a car accident but is on the verge of life and death, she vows to protect others. She dies but then saves a boy who called an ambulance when she had an accident, and they couldn't save her. Again, the student uses emotive language and onomatopoeia to express the tragedy of the situation: "there was danger just waiting for her", "she was breathing heavily", "was worried", "BANG".

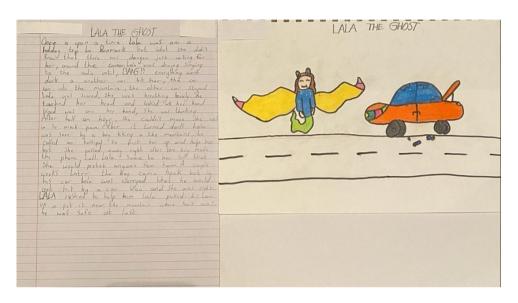


Figure 59. "Lala the Ghost"

The fourth stage of imagination is expressed by one student in this group. This fairy tale is about a girl who met a small creature that grew in size in her eyes and frightened her (Figure 60). However, they met, found a place to live and a comfortable bed for the creature and became friends. The narrative in this fairy tale is devoted mainly to the description of the characters and the place of events. This fairy tale differs from all others not only in the presence of a clear structure but also in the form of a narrative. It contains a combination of all stages of imagination but at the same time, it creates a warm emotional impression and has its own individuality.

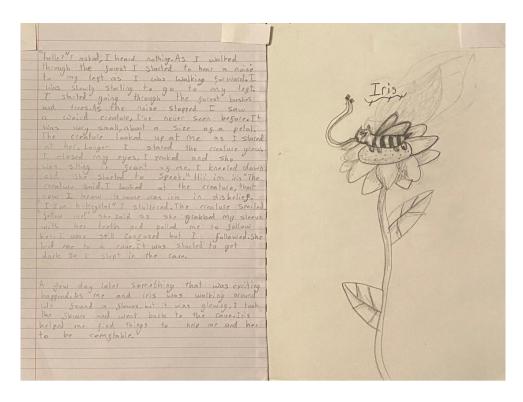


Figure 60. "Iris"

## 7.4.4Conclusion for Fairy Tale Analysis

In conclusion, the analysis of fairy tales created by year five students provides valuable insights related to our research questions regarding Vygotsky's understanding of imagination and the variations in expressions of the four stages of imagination among students, along with potential explanatory factors.

Regarding the first research question, Vygotsky's understanding of imagination can indeed be distilled into an effective classification of developmental stages. Like the students' drawings, their fairy tales also reflect distinct expressions of the four stages: Reproductive imagination, Expression of experience, Emotional reality, and Crystallized imagination. This classification drawn from Vygotsky's theoretical framework, demonstrates the applicability of his concepts in understanding the imaginative development of primary school children. Many of the students' products were fairly straightforward to allocate into their stage of development. Differentiating between items fitting the higher stages required a little more refinement and reflection, but with practice, this became an easier process. All products were comfortably seated within a specific stage, and none needed showed unaccounted qualities that would

challenge their categorisation; thus, it seems Vygotsky's frame is comprehensive. This is not to say it is the only way to categorise imaginative products, but here it has been found to be an effective way and due to its clearly structured approach should be readily communicable for pedagogic use by educators. The relatively even spread across all four stages shown by the students at each school (see Fig. 61) again supports the choice of Year 5 Primary school students for this study. As this age group did indeed offer a range across all four stages as was hoped for at this developmental age.

Moving on to the second research question, the analysis reveals characteristic variations in the expressions of the four stages of imagination across the different classes. School 1 students exhibit a structured approach, reflecting a strong influence of academic expectations, possibly due to the teacher's emphasis on NAPLAN preparation. School 2 students demonstrate a more relaxed attitude, allowing for greater freedom of thought and creativity. In contrast, School 3 students show the impact of emotional components and experiences, influenced by both art and history classes.

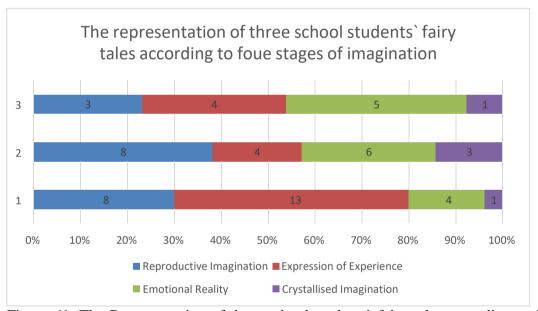


Figure 61. The Representation of three school students` fairy tales according to four stages of imagination

These variations can be attributed to several factors. The teaching approach, subjects taught, and the specific instructions provided by the teachers likely play a significant role in shaping the students' creative work. The influence of the school environment, including its cultural and socio-economic factors, may also contribute to the differences observed.

By examining the expressions of the four stages of imagination among year five students, this study highlights the importance of considering individual, instructional, and contextual factors in understanding the variations in imaginative development. These findings can inform educators and researchers about the diverse approaches to fostering creativity and emotional engagement in the classroom.

Further research in this area can delve deeper into the factors influencing these variations, exploring additional variables such as teacher-student dynamics, cultural influences, and the role of specific instructional practices. Such investigations can provide a more comprehensive understanding of the complex interplay between developmental stages of imagination and the factors that shape them among primary school children.

## 7.5 Comparison across Teachers

In Chapter 6, the researcher's focus was on the broader school context and its effect on the students' creativity and imagination. The study revealed variations in the impact of the educational system and curriculum on students' creativity. This notion found partial supportin the analysis of teacher interviews and their comparison with one another. In this section, we give the analysis of the semi-structured interviews with each teacher (see Annexure K for the list of interview questions).

Analysis of the creative student data suggests differences in engagement levels and imaginative output among the three schools. School 1 students appear to show higher levels, which could be linked, in part, to the proactive approach and strong parent-teacher connections. Students in Schools 2 and 3 seem to face challenges in generating original and creative ideas in the later stages of our model compared to School 1. Possibly, teachers' varying levels of involvement in encouraging imaginative activities may contribute to the observed differences. We will explore this further through the lens of teacher interviews. At least, this is the inference that we will now discuss through the lens of the teacher interviews. This interpretation gains support from the researcher's observation that the teacher in School 1 successfully integrated imaginative activities into lessons despite a demanding curriculum. In contrast, teachers in Schools 2 and 3 reported difficulties, citing differing beliefs on the nature of imagination and external pressures.

The teacher of School 1 has accumulated 23 years of experience in the teaching profession. According to their interview responses, the teacher believes that the imagination is in part inherent but can also be fostered by the environment. They acknowledged that due to the demanding nature of the year 5 curriculum, students may not frequently engage in activities that foster imagination, "as the year 5 curriculum is tough". Nevertheless, the teacher makes an effort to include creative tasks at least once or twice a week. As Teacher 1 says: "I believe imagination is inherent but can be developed by the environment. Though the year 5 curriculum is tough, I try to incorporate imaginative activities once or twice a week, especially in English and Maths. It's particularly useful for creating poetry and story writing or telling". The teacher expressed the belief that imagination is inherent but can be developed through the environment. Despite the challenges posed by the rigorous year 5 curriculum, they strive to incorporate imaginative activities, especially in English and Maths.

The students in their class showed the highest level of involvement in both the process of drawing and writing fairy tales. Their works provided examples of all four stages of imagination, demonstrating diversity not only in content but also in structure. Moreover, the fairy tales written by them differ not only in content but in structure as well. The teacher introduced the researcher to the class and explained the purpose of the drawing activity, offering a detailed explanation of the available options. The teacher provided substantial support, answering questions and helping students stay on track during the drawing task. Their scaffolding of the imaginative activity was substantial. During the completion of the drawing task, the teacher supported students by answering their questions or helping them stay on track. For the written fairy tale activity, they set it as a part of NAPLAN writing. So, they used a question-and-answer strategy to remind students of their imaginative drawing and, in this way, supported the selection and crafting of ideas of narrative, character, setting, development of story atmosphere, sentence structure, and fairy tale structure.

The School 2 teacher has 5 years of teaching experience, and like the School 1 teacher, they believe that imagination changes with age. However, in contrast to Teacher 1, Teacher 2 sees imagination as a faculty that naturally emerges around the age of 5.In their opinion, the curriculum is sufficiently comprehensive, and they do not consider it necessary to introduce additional tasks. Quoting Teacher 2: "Due to the complex curriculum, I can't use creative activities in the classroom frequently". In their interview, they emphasised how they found it useful to use imagination skills in English

writing or in the study of poetry. In general, they believe the curriculum is sufficiently complete and do not suppose it necessary to add additional tasks. The researcher noted that Teacher 2 seemed to view imagination as a natural occurrence in students, not requiring explicit fostering. Thus, it raises questions about whether such an attitude might impact the clear developmental stages to higher imaginative products as outlined by Vygotsky. The outcomes of their students vary from those of School 1 in terms of content quality, amount of written text, and the writing process. Unfortunately, the teacher of School 2 was away on the day of the activity. A substitute teacher was present but did not take part in the activity, leaving the activity setting to the researcher. Teacher 2's absence complicates the comparison with the support provided by Teacher 1 in fostering a creative atmosphere. This resulted in increased confusion among students regarding the task requirements. They compensated by seeking assistance from each other, likely due to the absence of established rapport with the researcher. Some students even replicated their peers' images.

The School 3 teacher, with 10 years of teaching experience, mentioned challenges in finding time for creative activities due to the overwhelming number of students and assessments. They responded in their interview saying: "I'm overwhelmed by the number of kids and their assessments, leaving little time for creative activities. I don't have much intention to use imaginative activities, and the curriculum constraints limit my options". The teacher introduced the researcher to the class and allowed the researcher to lead the activity. All further instructions to students were given by the researcher. As seen above, the drawings of most students of School 3 reflect mainly the reproductive level of imagination. That is, they use ready-made images borrowed from books or fairy tales they have read or seen. Fairy tales in this group are mostly short and have little variety in their content. The process of work caused difficulties for most of the children. They needed more detailed instructions and explanations. Several students were not able to write a fairy tale in the allotted time period.

Thus, the three teachers showed different perspectives and approaches to fostering imagination in their students. The School 1 teacher's proactive approach and strong connection with parents correlated with positive results in terms of student engagement and imaginative output. In contrast, the School 2 teacher and even more so the School 3 teacher faced difficulties to incorporate creative activities into their classrooms. This was influenced by their varying beliefs regarding the importance and development of imagination, particularly considering the high demands of the curriculum.

Thematic analysis was particularly valuable in analysing the teachers' interviews, as it provided a deeper understanding of the teachers' perspectives on the students' imaginative development. The predefined topics established in advance, such as the teachers' observations of the students' creative expression and their strategies for encouraging imagination, guided the analysis. For example, during the thematic analysis, common themes emerged, such as the importance of creating a supportive classroom environment that nurtures the imagination, incorporating imaginative activities into lesson plans, and providing opportunities for open-ended exploration and creative expression. The analysis revealed specific strategies employed by teachers, such as incorporating storytelling and imaginative play into lessons, encouraging divergent thinking, and promoting student autonomy in their imaginative endeavours.

Table 1. Creating a Supportive Classroom Environment

No. Theme 1: Creating a Supportive Classroom Environment with three sub-themes 1.1-1.3

	School 1	School 2	School 3
1.1.Providing a safe and encouraging space for students to express their imagination.	On a regular basis	On a regular basis	Seldom
1.2.Incorporating imaginative activities and materials into the classroom.	Very often	Very often	Seldom
1.3.Fostering a positive and accepting atmosphere that values creative thinking.	On a regular basis	On a regular basis	Often

Theme 1 delves into the perspectives of teachers regarding the creation of a supportive classroom environment that nurtures and encourages the students' imagination. Table

1 presents an overview of teachers' responses to aspects related to Theme 1, which involves fostering an environment conducive to imaginative expression. Sub-theme 1.1 - Providing a Safe and Encouraging Space for Students to Express Their Imagination: This aspect revolves around the teachers' efforts to establish a safe and supportive space where students feel comfortable expressing their imaginative ideas and thoughts. In School 1 and School 2, this practice appears to be consistently implemented, suggesting a consistent emphasis on creating an atmosphere that encourages imaginative expression. For example, the teacher of School 1 reported: "I provide a safe and encouraging space for my students to express their imagination regularly. Incorporating imaginative activities and materials into the classroom is essential to me, and I do it very often". Likewise, the School 2 teacher stated: "I strive to create a supportive classroom environment where students feel comfortable expressing their imagination". However, for the teacher of School 3, this aspect is implemented less frequently, with only the seldom fostering of such an environment. Teacher School 3 said: "I try to provide opportunities for my students to explore their interests and ideas imaginatively, but it's challenging due to the demands of the curriculum and students' individual needs. Nonetheless, I recognise the importance of promoting student autonomy in creative pursuits and do so sometimes. "Sub-theme 1.2 - Incorporating Imaginative Activities and Materials into the Classroom: This dimension explores how teachers integrate imaginative activities and materials into the classroom curriculum. Schools 1 and 2 are proactive in incorporating such elements, with teachers using imaginative activities and materials very often to engage students' creativity and encourage imaginative thinking. For instance, School 1 teacher said: "Allowing my students to take the lead in their imaginative projects and creations is a part of my teaching philosophy, and I support their independent thinking and decision-making as well". Whilst School 2 teacher reported: "Though I use imaginative activities and materials very often, I believe the curriculum is sufficiently complete and don't often use additional tasks. Encouraging students to think beyond the obvious and explore different possibilities is an essential aspect of my teaching approach". Conversely, in School 3, this practice is infrequent, with teachers utilising imaginative activities and materials only seldom. School 3 teacher stated: "Incorporating imaginative activities and materials into the classroom is something I strive to do, but it's challenging given the different levels of knowledge and abilities of my students. The demanding curriculum leaves little room for additional creative tasks, but I do my best to introduce some imaginative elements whenever possible."

Sub-theme 1.3 - Fostering a Positive and Accepting Atmosphere that Values Creative Thinking: This dimension focuses on establishing an atmosphere within the classroom where creative thinking is valued and encouraged.. In both School 1 and School 2, the teachers consistently aimed to foster such an atmosphere on a regular basis. School 1 teacher stated: "Fostering a positive and accepting atmosphere that values creative thinking is a priority, and I work towards it on a regular basis". And School 2 teacher reported: "I work towards promoting student autonomy in imaginative endeavours by allowing them to take the lead in their projects and creations. Supporting their independent thinking and decision- making is an essential part of my teaching practice." In School 3, the teacher also acknowledged the importance of this aspect, working to foster a positive atmosphere when possible, though not as consistently as in the other schools. School 3 teacher said: "Fostering a positive and accepting atmosphere that values creative thinking is important to me, and I work towards it often. However, with the limited time and resources available, it can be difficult to consistently maintain such an atmosphere. I do my best to encourage my students to think creatively and explore different possibilities, even if it's not as frequent as I would like.

Table 2. Integration of Imaginative Activities into Lessons

No. Theme 2: Integration of Imaginative Activities into Lessons and Sub-themes 2.1-2,3

	School 1	School 2	School 3
2.1 Using storytelling and narrative-based approaches to engage students' imagination.	On a regular basis	On a regular basis	Often
2.2 Incorporating imaginative play and role-playing activities to enhance learning.	On a regular basis	Very often	Seldom
2.3Encouraging students to think beyond the obvious and explore different possibilities.	On a regular basis	Very often	Seldom

Theme 2 explores the perspectives of teachers from three different schools regarding the integration of imaginative activities into their lessons to enhance student engagement and foster imaginative thinking. The table provides insight into the frequency with which teachers utilise specific approaches to stimulate students' imagination during classroom instruction.

Sub-theme 2.1 - Using Storytelling and Narrative-Based Approaches to Engage Students' Imagination: This dimension highlights the means to capture students' imagination and make the learning experience more captivating. In both School 1 and School 2, teachers mentioned employing imaginative techniques in their teaching practices. School 1 teacher stated: "I use storytelling and narrative-based approaches on a regular basis to engage my students' imagination. It makes the learning experience more captivating for them". And School 2 teacher reported: "I allow students to take the lead in their imaginative projects and creations on a regular basis. It empowers them to freely express their imaginative ideas". In School 3, this approach is implemented often, showing that the teacher recognises its value despite occasional challenges posed by a busy curriculum. School 3 teacher said: "I use storytelling often due to its ability to capture students' attention and make learning more engaging. It's a valuable tool to introduce new concepts and explore different perspectives. However, given the demands of the curriculum and the limited time available, I struggle to incorporate as many imaginative activities as I would like. I believe that nurturing students' imaginative skills is important, but finding the right balance between academic content and creative exploration can be challenging."

Sub-theme 2.2 - Incorporating Imaginative Play and Role-Playing Activities to Enhance Learning: This aspect focuses on the integration of imaginative play and role-playing activities within the classroom to enrich the learning experience. Teachers in School 1 and School 2 are actively engaged in this practice, incorporating such activities on a regular basis and very often, respectively. School 1 teacher stated: "I encourage students to think beyond the obvious and explore different possibilities on a a regular basis. It helps them develop imaginative thinking and problem-solving skills". And School 2 teacher reported: "I incorporate imaginative play and role-playing activities very often to enhance learning in my classroom. It helps students explore concepts from different perspectives". These teachers recognised the potential of imaginative play to enhance learning and encourage students to explore concepts from diverse perspectives. Conversely, in School 3, this practice is implemented less frequently, with such activities seldom used. School 3 teacher reported: "My focus is

mostly on meeting the individual goals and regular assessments of my students. This leaves me with limited time and energy to invest in creative activities." Sub-theme 2.3 - Encouraging Students to Think Beyond the Obvious and Explore Different Possibilities: In both School 1 and School 2, teachers consistently fostered creative approaches, encouraging students to think beyond the obvious on a regular basis and very often, respectively. School 1 teacher stated: "I provide opportunities for students to explore their own interests and ideas imaginatively on a regular basis. It fosters intrinsic motivation and a sense of ownership in their imaginative pursuits." And School 2 teacher said: "I foster independent thinking and decision-making among students on a regular basis. It helps them gain confidence in their imaginative capabilities." By doing so, these teachers empower students to develop their imaginative thinking and problem-solving skills. However, for the teacher of School 3, this aspect is implemented less frequently as they find it challenging to incorporate creative tasks into lessons due to the demands of the curriculum. School 3 teacher reported: "The curriculum demands a lot, and I find it challenging to incorporate creative tasks into my lessons."

This theme sheds light on the significance of incorporating imaginative approaches in the classroom to foster creative thinking, engagement, and a deeper understanding of educational content. It underscores the role of teachers as facilitators of imaginative exploration and highlights the potential of imaginative activities to enrich the learning experience and promote holistic cognitive development in year 5 primary school students.

Table 3. Promoting Student Autonomy in Imaginative Endeavours

No. Theme 3: Promoting Student Autonomy in Imaginative Endeavours and Subthemes 3.1-3.3

	School 1	School 2	School 3
1. Allowing students to take the lead in their imaginative projects and creations.	On a regular basis	On a regular basis	Sometimes
2.Supporting students' independent thinking and decision-making.	On a regular basis	On a regular basis	Sometimes

3.Providing	On a regular basis	On a regular basis	Sometimes
opportunities for			
students to explore			
their own interests			
and ideas			
imaginatively.			

Theme 3 delves into the perspectives of teachers from three different schools concerning their efforts to promote student autonomy in imaginative endeavours. Table 3 summarises the frequency with which teachers encourage students to take the lead in their imaginative projects and creations, support independent thinking and decision-making, and provide opportunities for students to explore their own interests and ideas imaginatively.

Sub-theme 3.1 - Allowing Students to Take the Lead in Their Imaginative Projects and Creations: This dimension highlights the extent to which teachers empower students to take ownership of their imaginative tasks. In both School 1 and School 2, teachers support student autonomy in this area. School 1 teacher reported: "I believe in allowing my students to take the lead in their imaginative projects and creations. It empowers them to express their ideas freely and fosters a sense of ownership in their work." And School 2 teacher stated: "I strive to give my students the freedom to take charge of their imaginative projects. It helps them build confidence in their abilities and promotes a sense of responsibility for their creative expressions." By providing such opportunities, these teachers aim to facilitate a sense of ownership and self-expression in students, encouraging them to explore their imaginative capabilities freely. In School 3, the teacher does so at times, indicating occasional emphasis on student autonomy.

School 3 teacher said: "I sometimes provide opportunities for my students to explore their interests imaginatively. While it's challenging given the demanding curriculum, I recognise the importance of letting them express themselves creatively." Sub-theme 3.2 - Supporting Students' Independent Thinking and Decision-Making: This aspect focuses on teachers' efforts to support students in developing their independent thinking and decision-making skills within the context of imaginative endeavours. In both School 1 and School 2, the teachers encouraged independent thinking and decision-making among students on a regular basis. School 1 teacher stated: "Supporting my students' independent thinking and decision-making is crucial

in developing their imaginative capacities. I encourage them to explore different possibilities and trust their creative instincts." And School 2 teacher said: "Encouraging my students to think beyond the obvious is essential in nurturing their imaginative thinking. I enjoy witnessing their unique perspectives and ideas as they explore imaginative concepts." By doing so, they promoted confidence in students' imaginative capabilities and encouraged them to explore and express their ideas with greater independence. In School 3, the teacher also supported independent thinking and decision-making periodically, indicating a moderate emphasis on this aspect. School 3 teacher: "Encouraging independent thinking is something I try to do whenever possible. Though not as often as I'd like, I believe it's important for their imaginative growth and overall development."

Sub-theme 3.3 - Providing Opportunities for Students to Explore Their Own Interests and Ideas Imaginatively: This dimension centres on the opportunities teachers create for students to explore their own interests and ideas imaginatively. In both School 1 and School 2, teachers regularly provide such opportunities on a regular basis, allowing students to engage with imaginative endeavours that align with their interests. School 1 teacher stated: "I provide ample opportunities for my students to explore their own interests and ideas imaginatively. It's amazing to see their intrinsic motivation and passion when they engage with imaginative endeavours." And School 2 teacher said: "I firmly believe that imaginative play and role-playing activities enhance learning experiences. They provide a hands-on and interactive way for students to explore concepts, and I often witness how engaged and enthusiastic they become during these activities." This approach aims to cultivate intrinsic motivation and a sense of ownership in students' imaginative pursuits. In School 3, the teacher provided opportunities for students to explore their interests and ideas imaginatively at times, suggesting occasional emphasis on this aspect with room for potential enhancement. School 3 teacher reported: "Promoting student autonomy in imaginative endeavours is something I'm trying to improve upon. While I understand its importance, the constraints of time and curriculum sometimes limit my ability to provide more opportunities for independent exploration."

This theme highlights the role of teachers in empowering students to take charge of their imaginative projects and ideas, supporting their independent thinking and decision-making, and providing opportunities for individual exploration. By embracing student autonomy, teachers create a supportive and enriching environment

that stimulates imaginative thinking and fosters a deep appreciation for creativity and self-discovery.

In summary, the comparisons across teachers serve to reinforce the key findings from Chapter 6. The various factors affecting students' creativity and imagination, such as the educational system, curriculum, school environment, and the role of teachers significantly shape students' learning experiences and their ability to develop imaginative skills.

In conclusion, the comparison of teachers in the three schools provides valuable insights into the critical role they play in nurturing students' creativity and imagination. The issue raised in the teacher interviews was the excessive amount of curriculum that Year 5 teachers were expected to deliver. This caused time pressures that challenged their ability to carry out the more open-ended imaginative activities that are not so easy to direct towards specific curriculum objectives. Whilst all teachers in the study were keen to implement a range of imaginative strategies, only School 1 and School 2 teachers felt able to do so, whilst the teacher of School 3 felt an incapacity to overcome the curriculum problem as it was mentioned by teachers in their interviews. This may, in part, be due to the weaker conviction shown by the teacher of School 3 in the importance of developing the imaginative faculty. This, in part, might explain the students of School 3 exhibiting the weakest developmental profile in their creative product. Whilst the sub-theme frequency responses and comments of teachers from School 1 and School 2 were quite similar, the profile of creative products by their students was not the same – with the product of students of School 1 being of higher development overall. This might be explained by the absence of teacher 2 on the day and thus a lack of familiar presence and presumably recognised support in assisting the students through the activities. Another possible explanation might be the weaker belief (in contrast to teacher 1) expressed by teacher 2 in the need to support the development of the imagination in students at this age (as discussed at the beginning of this section).

## 7.5 Comparison across Parents

In this section, results are discussed of the open-ended questionnaire held with the students' parents. The questionnaire was conducted with parents from three different schools, and the number of parents who participated from each school was as follows: 26 parents from School 1, 21 parents from School 2, and 17 parents from School 3.

In School 1, where parents actively participated in their children's activities were prominent, 50 per cent of the parents said they listened to their children's stories, read books with them, and engaged in creative activities such as drawing. Moreover, 70 per cent of parents took part in sports activities with or alongside their children. Notably, the responses from School 1 parents to open-ended questions were detailed, showcasing their interest in their children's interests and needs. This indicated a high level of parental involvement, which presumably nurtures the development of creativity and imagination in their children.

Conversely, in School 2, there was a lower level of parental engagement with only 30 per cent of parents—reporting listening to their children's stories or dreams, and observations indicating that children tend to read more at school than at home. Additionally, 20 per cent of the parents reported that their children's—preference for playing computer games after school. These responses suggested that the parents in School 2 may less—actively involved in nurturing their children's creative and imaginative development compared to those in School 1.

School 3 parents' responses were characterised by brevity or non-participation in the survey. For many parents in this group, school seems to serve primarily serve as a safe place for their children while they are at work. School 3 parents' responses indicated a lack of proactive involvement in arranging creative activities for their children, instead choosing to primarily listen and observe their children's actions. Additionally, some School 3 parents appeared uncertain about their children's preferences, possibly indicating a limited understanding of their interests and needs. As discussed in Chapter 5, these parents paid attention to study information and consent forms only after multiple reminders and requests from the teacher. Furthermore, their answers displayed a minimal level of engagement in the teaching process and their children's interests and activities. This minimal parental involvement and support may potentially impact the creative development and overall well-being of the students in School 3.

The following presents a detailed analysis of each question's responses, providing a nuanced understanding of the diverse perspectives shared by the parents from each school.

Table 4. Question 1: How often does your child draw?

Question 1	Parents/guardians	Parents/guardians	Parents/guardians
	School 1	School 2	School 3
How often does your child draw?	Often-12	Often-12	Often-8
	Not very often-13	Not very often-8	Not very often-7
	Never-1	Never-0	Never-0
	No answer-0	No answer-1	No answer-2

The analysis of Question 1 data (Table 4) revealed that most parents/guardians from School 1, School 2, and School 3 participated in providing information about their child's drawing.

Among the three schools, the parents of School 1 and School 3 showed equal relative engagement, whilst School 2 had a higher number of students whose parents reported that they engaged in drawing activities.

While most parents/guardians participated and provided valuable data, a few parents/guardians did not respond to the question in each school. One parent/guardian each from School 1 and School 2 did not provide an answer, while two parents/guardians from School 3 did not respond.

Table 5. Question 2: When your child describes an event in their daily life, do they embellish the story or just tell you as a matter of fact?

Question 2	Parents School 1	Parents School 2	Parents School 3
When your child describes an event in their daily life, do they embellish the story or just tell you as a matter of fact?	Story-9	Story-9	Story-8
	A matter of fact-17	A matter of fact-11	A matter of fact-7
	No answer-0	No answer-1	No answer-2

Across the three surveyed schools, a considerable number of parents/guardians reported that their children tend to adopt a storytelling approach when describing daily

events (see Table 5). In School 1, 9 parents mentioned this tendency in their children, a figurethat mirrored School 2, and was closely followed by 8 parents in School 3. This consistency in reporting across the schools indicates that storytelling is abehaviour observed among the student population. Conversely, parents from all three schools also acknowledged that their children narrate events in a straightforward and matter-of-fact manner. School 2 had the highest number of parents (11) reporting this behaviour, while School 1 and School 3 had 17 and 7 parents, respectively, making similar observations. The existence of both storytelling and matter-of-fact narration across all three schools highlights the coexistence of different communication styles among the student cohort.

Table 6. Question 3: What are your child's preferred after-school activities?

Question 3	Parents School 1	Parents School 2	Parents School 3
What are your child's preferred after-school activities?	Inside/drawing,	Inside/drawing,	Inside/drawing,
	reading,games-13	reading, games-5	reading, games-8
	outside/sport-11	outside/sport-3	outside/sport-4
	Both-2	Both-8	Both-3
	No answer-0	No answer-1	No answer-2

Among the three surveyed schools (see Table 6), indoor activities such as drawing, reading, and playing games were found to be widely favoured by students. A significant majority of parents/guardians from School 1 (13 parents), School 2 (5 parents), and School 3 (8 parents) reported that their children prefer engaging in these indoor activities after school. This shared preference highlights the popularity of creative and intellectually stimulating pursuits among the student population.

Outdoor activities, particularly participating in sports, also garnered considerable interest among the students. In School 1, 11 parents, in School 2, 3 parents; and in School 3, 4 parents stated that their children enjoy outdoor activities as their preferred after-school option. While the number of parents from School 2 reporting outdoor activities is comparatively lower, it still indicates an inclination towards outdoor sports among some students.

Moreover, a proportion of parents/guardians mentioned that their children have a preference for a combination of both indoor and outdoor activities. In School 1, 2 parents, in School 2, 8 parents; and in School 3, 3 parents reported this

choice, emphasising the students' desire for a diverse range of after-school experiences that encompass both indoor and outdoor leisure.

The data obtained from Question 3 shows a diversity of interests for students from all three schools, particularly for those of School 2, where a notable number of students freely engaged in both outdoor and indoor activities.

Table 7. Question 4: Does your child have any preferences in food or clothes?

Question 4	Parents School 1	Parents School 2	Parents School 3
Does your child have any preferences in food or clothes?	Yes-13	Yes-15	Yes-12
	No-13	No-5	No-3
	No answer-0	No answer-1	No answer-2

Across all three schools, the analysis of parent/guardian responses regarding their children's preferences in food or clothes revealed preferences for students of School 2 and School 3, but comparatively less so for those of School 1 (see Table 7). Noteit was the students of School 1 whose creative product averaged a higher stage of development. It is understood that their creative product was of only two sample pieces, and many other factors on the day may have distorted their creative pieces from being a true representation of their development. However, it is noteworthy that their preferences for food or clothes were not reported to be stronger compared to the students of the other two schools. This runs contrary to the intuitive expectation that a more developed imagination would accompany stronger preferences for other personal aspects of the child's life.

Table 8. Question 5: When your child gets bored, what are their go-to activities to alleviate their boredom?

Question 5	Parents School 1	Parents School 2	Parents School 3
When your child gets bored, what are their go-to activities to	Sport-9	Games/TV-7 Books/drawing-3 Sport-3 All-7 No answer-1	Games/TV-7 Books/drawing-5 Sport-2 All-2 No answer-2

alleviate their boredom?			
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As summarized in Table 8, the playing of games or watching TV to alleviate boredom was reported for School 1, by 14 parents, in School 2, by 7 parents, and in School 3, by 7 parents. We note that whilst screen-based activities were prevalent, a smaller yet consistent number of parents/guardians from each school indicated that their children turned to the more creative pursuits of reading or drawing when feeling bored. Participating in sports emerged as another frequently mentioned option for relieving boredom, with a notable number of parents/guardians mentioning this preference. Of particular interest is the significant number of parents/guardians from School 2 and School 3 who reported that their children have a preference for all types of activities, encompassing both screen-based options (games/TV) and more creative or physically engaging pursuits (books/drawing/sports) to alleviate boredom. This observation suggests a diverse approach to coping with boredom among students from these schools, with children displaying a willingness to engage in various activities based on their moods and interests.

The inclusion of quotes from parents/guardians representing each school provides concrete examples of their children's preferred go-to activities:

A parent from School 3 mentioned, "Play, watch TV, draw, origami, play a musical instrument." This quote highlights the range of activities in which the child engages, encompassing creative endeavours like drawing and origami, as well as morepassive activities such as watching TV.

From School 2, a parent shared, "Conversations, drawing, craft, imaginative play with toys, decorating." This statement exemplifies the child's inclination towards interactive activities like conversations and imaginative play, coupled with creative pursuits like drawing and crafts.

Similarly, a parent from School 1 stated, "Making inventions, drawing, watching TV," revealing the child's preference for activities that stimulate imagination, such as making inventions, alongside the more passive activity of watching TV.

The data underscores the range of go-to activities that children utilise to alleviate boredom among students from the three schools. While screen-based options

like games and TV are popular choices, creative endeavours like reading and drawing, as well as physical activities like sports, also play a significant role.

Table 9. Question 6: How does your child react to music?

Question 6	Parents School 1	Parents School 2	Parents School 3
How does your child react to music?	Positive-24 Neutral-2 No answer-0	Positive-18 Neutral-2 No answer-1	Positive-13 Neutral-2 No answer-2

The data collected from Question 6 (Table 9) revealed that the majority of parents from each school reported their children's reactions to music as positive. Specifically, that in School 1, 24 parents indicated a positive response. In School 2, 18 parents, and in School 3, 13 parents expressed the same sentiment. These figures demonstrate that music evokes a strong positive reaction among the students across all three schools.

Whilst most parents reported a positive response, a small number of parents from School 1 and School 2 stated that their children have a neutral reaction to music. In School 1, 2 parents reported a neutral response, and in School 2, 2 parents mentioned the same. However, it is essential to note that these neutral responses represent a minority compared to the overwhelmingly positive reaction reported by the majority of parents from each school.

A parent from School 1 mentioned, "Loves music. Many types of genres of music. Hasbeen exposed since birth." This quote illustrates the child's strong affinity for music andthe diverse range of musical genres to which they are exposed from an early age. FromSchool 2, a parent shared, "She loves it. Uses a couch/classical to relax at night before bed + during quiet activities. Sings along. Makes her own playlist." This statement exemplified how the child finds comfort and relaxation in music, incorporating it into her daily routine for calming and enjoyable experiences. Similarly, a parent from School 3 stated, "Quiet often, especially in the car." This quote highlights how the childfrequently engages with music, particularly during car rides, suggesting that music plays a significant role in their everyday life.

The varied and positive responses indicate that music holds significant appeal and influence on the children, likely influenced by their exposure to a wide variety of musical experiences. This insight underscores the potential benefits of integrating music into educational settings and activities to further support and enrich the students' overall well-being and development.

Table 10. Question 7: How often does the child like to compose or tell fairy tales or stories?

Question 7	Parents School 1	Parents School 2	Parents School 3
How often does the child like to compose or tell fairy tales or stories?	Sometimes-14 No answer-0	Often-5 Never-0 Sometimes- 15 No answer-1	Often-4 Never-6 Sometimes-5 No answer-2

The analysis of the data from Question 7 (Table 10) provides insights into the storytelling tendencies among students from each school. In School 1, the majority of parents (10 parents) reported that their child likes to compose or tell fairy tales or stories sometimes, while a smaller proportion (3 parents) mentioned that their child engages in storytelling often. Only 2 parents indicated that their child never participates in composing or telling stories. A similar pattern emerged in School 2, where 15 parents stated that their child enjoys storytelling sometimes, and 5 parents reported that their child does so often. Notably, no parent from School 2 mentioned that their child never engaged in storytelling. On the other hand, the responses from School 3 were more diverse. While 5 parents stated that their child enjoys composing or telling stories sometimes, 4 parents mentioned that their child does so often. However, a significant number of parents, 6, reported that their child never engages in composing or telling stories.

A parent from School 1 highlighted, "He describes most of the incidents in the form of stories." This quote indicates the child's inclination towards incorporating storytelling elements into their daily experiences. From School 2, a parent shared, "She enjoys coming up with stories in games, e.g., a character's backstory." This statement showcases the child's imaginative storytelling within the context of play and gaming. Similarly, a parent from School 3 commented, "Not too long, straight to the point." This quote provides insight into a child's concise approach to storytelling, suggesting that brevity is valued in their expression.

The data and quotes obtained from Question 7 reveal that storytelling interests vary among students from the three schools. While a number of children enjoy composing or telling stories sometimes or often, there are also students who are

not engaged in storytelling. The range of storytelling tendencies, as observed through the provided quotes, underscores the individuality of children'screative expression, and highlights the various forms storytelling can take within each school environment.

Table 11. Question 8: How often does your child have unusual dreams?

Question 8	Parents School 1	Parents School 2	Parents School 3
How often does your child have unusual dreams?	Often-1	Often-3	Often-3
	Never-3	Never-4	Never-2
	Sometimes-20	Sometimes-13	Sometimes-9
	Don`t know-2	Don`t know-0	Don`t know-1
	No answer-0	No answer-1	No answer-2

The analysis of the data from Question 8 (Table 11) provides valuable insights into theoccurrence of unusual dreams among students from each school. In School 1, the majority of parents (20 parents) mentioned that their child sometimes has unusual dreams, indicating that this phenomenon is relatively common among the students. On the other hand, three parents stated that their child never experiences unusual dreams, indicating that there is a small percentage of students who do not tell of having such dreams. Additionally, two parents expressed uncertainty about their child's dream patterns, suggesting that they may not show much interest in their child's dream experiences.

A similar pattern emerged in School 2, where thirteen parents reported that their child sometimes has unusual dreams. This finding suggests that the occurrence of unusual dreams is also prevalent in School 2. Three parents mentioned that their child has unusual dreams often, indicating that, as in School 1, some students experience these dreams more frequently. Notably, one parent did not provide a response to this question, and four parents stated that their child never experiences unusual dreams.

In School 3, the majority of parents (9 parents) stated that their child has unusual dreams at times. Three parents mentioned that their child has unusual dreams often, indicating that, similar to the other two schools, there are students in School 3 who frequently experience such dreams. However, two parents reported that their child never experienced unusual dreams, suggesting that there is also a subset of students in School 3 who do not encounter these dreams.

A parent from School 1 shared, "Not very often. 'Too tired to have dreams' - Elizabeth." This quote indicates that the child from School 1 experiences unusual dreams infrequently, with occasional nights of not having dreams due to fatigue. From School 2, a parent mentioned, "She will sometimes talk about weird dreams. Maybe once a week." This statement suggests that the child from School 2 experiences unusual dreams occasionally, with an estimated frequency of about once a week. Similarly, a parent from School 3 commented, "Almost nightly." This quote indicates that the child from School 3 experiences unusual dreams frequently, with these dreams occurring almost every night.

The data and quotes received from Question 8 suggest that the occurrence of unusual dreams varies among students from the three schools. While a majority of children from each school sometimes have unusual dreams, there are also variations, with some students experiencing unusual dreams more often or not at all. The reasons for these varying dream patterns may be attributed to individual differences, sleep quality, stress levels, and other factors that can influence dream experiences.

Table 12. Question 9: Can you recall some of your child's favourite books or movies and describe what interests them in these stories?

Question 9	Parents School 1	Parents School 2	Parents School 3
Can you recall some of your child's favourite books or movies and describe what interests them in these stories?		Books-10 Movies-10 No answer-1	Books-5 Movies-9 No answer-3

The analysis of the data from Question 9 (Table 12) provides valuable insights into theliterary and cinematic preferences of students from each school. In School 1, 11 parents recalled their child's favourite books, while 15 parents mentioned their child's favouritemovies. One parent did not provide a response to this question. Among the favourite books mentioned, the *Harry Potter* series was notable, indicating the enduring popularity of this fantasy series among students. For movies, *A Series of Unfortunate Events* was mentioned, with parents highlighting their child's interest in drama, unusual

elements, and mystery in the stories. This suggests that children in School 1 have a diverse range of interests, with some drawn to the fantastical worlds of magic and others intrigued by compelling and mysterious plots in movies.

In School 2, 10 parents recalled their child's favourite books, and 10 parents mentioned their child's favourite movies. One parent did not provide a response to this question. The favourite books mentioned included *EJ12 Girl Hero* and works by Roald Dahl, in addition to the *Harry Potter* series. For movies, specific titles were not mentioned, but parents described their child's interest in fantasy, adventure, bravery, character building, and relationships in the stories.

In School 3, 5 parents recalled their child's favourite books, while 9 parents mentioned their child's favourite movies. Three parents did not provide a response to this question. Although the specific titles of the favourite books and movies were not mentioned, one parent noted that their child enjoyed different worlds in the books they preferred.

One parent from School 1 mentioned "Harry Potter books. A Series of Unfortunate Events (movies). Actually, the drama, unusual things, and the mysterious." This quote highlights the child's fascination with drama and mysterious elements in both books and movies. From School 2, a parent stated, "Winnie currently likes fantasy movies and books. I recall her enjoying a book called EJ12 Girl Hero. Adventure, bravery, character building, and relationships." This quote emphasises the child's interest in stories centred on fantasy, courage, personal development, and interpersonal connections. Another parent from School 2 mentioned, "Roald Dahl and Harry Potter books. She likes different worlds." This quote suggests that the child from School 2 is drawn to exploring new and imaginative realms presented in the works of Roald Dahl and the Harry Potter series. Lastly, a parent from School 3 mentioned "Harry Potter -Movies and Books. She likes the magic." This quote indicates the child's affinity for the magical elements found in the Harry Potter series, both in its book and movie formats. The data received from Question 9 demonstrated the variety of students' interests in books and movies across the three schools. Preferences ranged from fantasy and adventure to drama and mystery, highlighting the tastes of the students when it comes to literary and cinematic experiences.

Table 13. Question 10: What is your child's favourite play activity?

Question 10	Parents School 1	Parents School 2	Parents School 3
What is your child's favourite play activity?	TV/Games(inside)- 10 Sport (outside)-16 No answer-0	TV/Games(inside)-9 Sport (outside)-12 No answer-1	TV/Games(inside)- 10 Sport (outside)-5 No answer-2

The analysis of the data from Question 10 (Table 13) provides valuable insightsinto the play preferences of students from each school. In School 1, the majority of parents (16) mentioned that their child's favourite play activity is engaging in sports outside. Additionally, 10 parents reported that their child enjoys playing TV/games indoors. 'Inside games' include a range of activities, including but not limited to, online gaming, active games like Lego, as well as digital creative activities such as making Tik-Toks or YouTube clips. No parent from School 1 left this question unanswered. The specific outdoor play activities mentioned included playing with dolls, using monkey bars and gym equipment, and talking to themselves outdoors. This suggests that children in School 1 have a proclivity for active and physical play outdoors, while indoor activities involvingelectronic entertainment also hold appeal for them.

In School 2, 9 parents stated that their child's favourite play activity is playing TV/games indoors, while 12 parents mentioned that their child enjoys engaging in sports outside. One parent did not provide a response to this question. Additionally, the parents described their child's love for imaginative play, teaching or watching other children, and playing with younger siblings. This indicates that children in School 2 have a range of play preferences, including a mix of indoor activities involvingvideo games and outdoor sports, along with a focus on imaginative and social play withother children.

In School 3, 10 parents reported that their child's favourite play activity is playing TV/games indoors, and 5 parents mentioned that their child enjoys engaging in sports outside. Two parents did not provide a response to this question. The parents also mentioned their child's interest in activities like dancing on TikTok and creating their own YouTube channel. This suggests that children in School 3 have a strong inclination towards indoor play, particularly involving video games and technology-based activities, while still showing some interest in outdoor sports and physical activities. The inclusion of quotes from parents/guardians representing each school provides specific descriptions of their children's favourite play activities. One parent from School

1 mentioned, "She likes playing with babies/daycare with her dolls and loves playing/talking to herself outside on the monkey bars and gym equipment at home." This quote illustrates the child's play preferences, including both indoor imaginative playwith dolls and outdoor play on gym equipment. From School 2, a parent stated, "Building or creating Lego. Imaginative play is usually teaching or watching kids. She likes to play with her 4-year-old sister". This quote highlights the child's engagement in imaginative play with toys like Lego and their interest in interacting with and caring for younger siblings. Another parent from School 3 mentioned, "Doing dancing on TikTok or making her YouTube channel". This quote indicates the child's preference for technology-based play, utilising platforms like TikTok and YouTube for creative expression.

The data received from Question 10 demonstrates the play preferences among students from the three schools. While some children enjoy outdoor sports and physical activities, others are drawn to indoor play, including video games, imaginative play with toys, and creative expression through technology.

The comparisons across parents reveal a range of parental involvement and support in their children's creative and imaginative development. The differences observed among the three groups suggest that varying levels of parental engagement may have an impact on children's creativity and imagination.

These differences in parental involvement may be attributed to various factors, including socioeconomic and educational background, cultural values, and personal beliefs about the importance of creativity and imagination in children's development. The researcher believes that further research, with the inclusion of parents' socioeconomic, educational, and cultural backgrounds, will significantly enrich the data analysis and reveal important factors influencing the preferences and behaviours of students. By incorporating these additional variables, a more comprehensive understanding of how parental factors interplay with children's interests and activities can be achieved.

## 7.7. Chapter Summary

This chapter presents an analysis of students' drawings and fairy tales from three primary schools in Adelaide. Each Year 5 student's creative product was assessed and categorised within one of the four stages of the model of the imagination as developed in Chapter 4. The effectiveness of this categorisation process gives validity to the model

as an effective tool that may be of pedagogic use to teachers who wish to monitor the creative expression of their student's imaginative efforts. This analysis thus gives the answer to the first research question of this thesis: Can Vygotsky's conceptualisation of imagination be synthesised into a verified model of four developmental stages?

The analysis of the three schools revealed that different factors influenced the students' creative outputs. School 1, emphasising academic success, resulted in a predominance of works categorised as Reproductive Imagination. School 2 allowed for more freedom of expression, leading to a more balanced distribution of fairy tales and drawings across the various imagination stages. School 3 exhibited a majority of works categorised as Emotional Reality, reflecting the students' feelings and emotions, with influences from History and Art classes.

The influence of teachers on students' imagination was explored. Variation in the child's imaginative product broadly tracked the understanding by the teacher of the dynamic role that education can have on the development of the imagination and on the capacity of the teacher to value and present creative tasks with their students.

The importance of parents was also shown to play a significant role in the fostering of their child's imagination. It is essential to transparently acknowledge the limitations of our data, including the boundaries of parental and teacher insights. By doing so, we maintain the integrity of our analysis. These limitations are clearly delineated, offering a clear perspective on the extent of our interpretations and the inherent challenges faced in understanding the complexities of imaginative learning. Activities such as play, reading, and media consumption should be approached with competence and mindfulness. Further research is needed to explore the impact of different activities on children's imagination, including playing games, reading books, watching TV, and using computers.

Through analysis of the teacher and parent data, a complex picture of their respective influence on the child's imagination development was gradually built. Such social factors were anticipated by Vygotsky as important aspects of the child's developing faculties, such as the imagination. The broad correlation between the richness of these social factors and enhanced creative expression in the two activities of this study lends substantial support for this supposition. This data speaks to the second research question of this study: How do the expressions of the four stages of imagination vary across year five students, as shown in their creative work, and what factors might explain these differences?

Within the restrictions of the scope of our data collected, significant insight and thus it is hoped adequate answer was given to this question.

### **CHAPTER 8: SUMMARY AND CONCLUSION**

#### 8.1. Introduction

In this final chapter, we summarise and conclude the research journey that began with an exploration of the role of imagination in cognitive processes and the significance of various theories in understanding the imagination as a developmental concern. The comprehensive analysis of Year 5 students from three diverse Adelaide schools as described in Chapter 6, allowed for the testing of the four stage model of the imagination as drawn from the writings of Vygotsky and for the identification of key factors that nurture the imagination in young learners.

The findings of this research indicate the effectiveness of a hierarchical model of four types of imagination as a valid means to categorize the imaginative product of year 5 primary school students. Furthermore, the study demonstrates that environmental factors such as teacher influence, parental involvement, and curriculum implementation may make an impact on the expression and development of students' imaginative abilities.

# 8.2 Key Findings

The key findings of this study provide insights into the development of imagination among primary school students and its relationship to cognitive development and educational practices. These findings are summarised as follows:

Validity and Reliability of Vygotsky's Framework: The study supports the relevance and applicability of Vygotsky's theory of imagination in understanding the developmental stages of imagination among primary school students. The four-stage model derived from Vygotsky's theory offers a practical framework for analysing and interpreting students' imaginative expressions.

Influence of Social and Cultural Factors: The research highlights the potential role of social interactions, cultural influences, and language in the development of imagination. Creating a rich environment that exposes students to diverse experiences, perspectives, and ideas is suggested as a significant factor in enhancing imaginative thinking.

Educational Implications: The study offers valuable insights for educators in

fostering the imaginative capacity of primary school students. By incorporating Vygotsky's concepts and the four-stage model of imagination, educators can design strategies and activities that promote imaginative thinking, collaborative learning, and scaffolding techniques.

Cognitive Development and Imagination: The research lends support to the connection between students' imagination and their cognitive development, emphasising the intricate interplay between imaginative processes and higher-order cognitive skills.

Practical Strategies: The findings have practical implications for educators, highlighting the possible importance of creating a positive and supportive learning environment that combines structured academic activities with more open-ended, recreational activities to promote imagination.

Contribution to Knowledge and Pedagogy: The research enriches the scholarly discourse on imagination and child development, contributing to the existing body of knowledge. By building upon Vygotsky's theories, the study provides insights into the role of imagination in cognitive processes and its implications for pedagogy.

Future Directions: The study suggests future research directions. Most notably would be a more comprehensive testing regime to confirm the robustness of the tool as a means of determining the developmental stage of a child's imagination. This would require a greater number of imaginative activities until a comprehensive picture of the child's imagination was obtained. Questions to explore would include: how many activities were required before a high degree of confidence in ascertaining the child's stage of imaginative development? And investigating whether the imagination was equally expressed across a range of media and styles of activities or whether there was unequal development across various media. Additionally, exploring through a longitudinal study of the development of imagination would be of great interest. By tracking a young child from the commencement of kindergarten through to the end of primary school, a comprehensive examination of the four stage model testing for its sequencing of the four stages. Further investigations into the impact of cultural contexts and examining specific interventions to enhance students' imaginative capacities would also be of significant interest. Such future studies may well contribute to an ongoing understanding of imagination and its significance in educational psychology and child development research.

# 8.3. Limitations

This study has a number of limitations that should be considered when interpreting the results. First, the sample of schools was limited due to the conditions of the study and the COVID-19 pandemic. While the three selected schools represent different social strata and a different focus on education, it would be beneficial to conduct further studies of each socioeconomic tier of schools and compare and analyse the results fora more accurate analysis.

Another limitation of this study is the small amount of data collected. The purpose of this study was to test the effectiveness of a hierarchical system of four stages of imagination. Year 5 Primary school students were chosen as it was expected they would be in a so-to-speak developmental sweet spot that would evidence across all four stages. This indeed proved to be the case. What is not so clear from the data is whether the two pieces of creative work, drawing and fairy-tale, were sufficient to measure the student's stage of imagination development. As mentioned in future research, a greater number and range of activities would be required for confidence in this regard. Also, the sample of teachers in this study is very small, 3 teachers, and thus one needs to be careful in making any strong conclusions from the teacher data. It is safer to take their discussion as indications to inform future research. In the case of parental data, the questionnaires proved rich materials for discussion, but it must be noted the conditions under which the parents completed these questionnaires remain unknown. For example, it is wondered whether the parents of School 3 tended to give more restricted responses because their English ability may not have been as good as other parents in the study.

Lastly, and perhaps most importantly, there is a subjective factor in the researcher's categorisation of each creative product. In future studies, the extent of possible subjective distortion may be investigated by having multiple people analyse the same student product independently and then compare and contrast their categorisation process. This would then provide caveats for further instruction if this four stage tool is to become a useful aid to teachers tracking the development of their student imagination.

In conclusion, while this study provides valuable insights into the role of imagination in education and offers suggestions for supporting and enhancing students' imagination, the limitations discussed above should be considered when interpreting the results. Much further research is needed to fully understand the factors influencing the development of imagination in primaryary schoolstudents, but it is hoped this thesis

has contributed to the mapping out of a foundation for the pedagogic application of Vygotsky's concepts of the imagination.

# 8.4 Methodological Developments and Recommendations for Teachers

Drawing upon the findings of this study, the researcher has compiled a list of methodological developments and recommendations for teachers to support the growth of imagination in students.

Incorporate imaginative and creative activities into the curriculum: Design lesson plans and activities that engage students in imaginative tasks, such as storytelling, drawing, role-playing, and problem-solving, to stimulate their creative thinking and expression.

Provide a variety of materials and resources that allow students to engage in openended, creative activities. This may include art supplies, dress-up clothes, blocks, and other materials that allow for imaginative play.

Foster a positive and supportive classroom environment: Encourage students to share their ideas and creations without fear of judgment and provide constructive feedback to promote a growth mindset.

Engage in ongoing professional development: Participate in workshops, conferences, and training programs focused on nurturing creativity and imagination in students, to acquire new strategies and resources for effectively fostering these skills in the classroom.

Encourage students to express themselves through different mediums, such as art, writing, or music.

Motivate students to work on projects and activities that involve planning, decision-making, and problem-solving, as these skills can support imagination and creativity.

Inspire students to take risks and make mistakes, as this can be an important part of the learning and creative process.

Create opportunities for students to showcase their creative work and share their imaginative ideas, encouraging a sense of pride and accomplishment in their achievements.

## **ANNEXURE**

## Annexure A: Classroom activities samples

### YEARS 5: ENGLISH

## REFLECTION ON SENSES IN OUR LIFE.

This classroom idea begins with an exploration of students' perceptions and their ability to apply their senses to certain images. Students then use their findings in narrative writing.

This idea can be delivered as a block of classes or separate activities. Students explore their feelings and emotions and decide how they can describe it and develop it in different creations using their imagination.

### STUDENTS CAN

- explore their senses
- analyse their feelings and emotions
- explore questions such as:

How do senses influence perceptions?

How can personal reflections be used in a narrative?

This activity can be held in class in groups as well as individually. The choice of the images does not have any limitations. The choice of images is determined by the theme and content. Images should be provocative and enable students to see the duality of the same object.

# MAKING TIME TO ANALYSE

The students are required to unpack the given image and identify symbolic elements and their reflections. They need to convey the factual image with their perceptions. Students can follow the given structure as a part of the preparation for writing or develop their own strategy identifying the cognitive and emotional impact that the image has on them.

## **TASK**

Individually or in groups, students explore an image or images, choose one for their reflection, and think or discuss what they can see and feel, and how it conveys their perceptions.

Some examples:

- Environmental problems
- Global warming

- Poverty
- Refugees
- Cultural diversity
- Mental health

## **LEARNING ACTIVITIES**

Individually or in groups students select an image. Then, they reflect on it using their senses and answer the questions: What can I see? What can I smell? What can I touch? What can I hear? They imagine the environment. This activity is an essential part of writing preparation.

## THEMES AND INSPIRATION

Some questions to ask at the start of this inquiry:

- What does the image represent?
- What information is conveyed by the image?
- How might this image make you feel?
- What is the aim of this image?
- How do you understand this image?
- Why is it created in this way?

When students have distinguished the effect of the chosen image and identified its main idea, they can begin to explore the image in detail with the use of resources provided by the teacher or develop their own strategies.

Teacher-given strategy:

- What can I see?
- What can I smell?
- What can I hear?
- What can I touch?
- What can I taste?
- What I think....
- What I wander....

The next three blocks are referred to possible ways students might use to present their findings:

- 3. create an oral presentation to a class using a poster or slides and discuss details with their classmates.
- 4. write an essay or a story with a narrative analysis of the selected image.
- 5. present their findings in a poem.

# TIME TO CREATE: PRESENTATIONS

Students can work individually or in groups to develop their own understanding of the image. They can start to plan using the strategy provided by the teacher or create their own. Students might start by elaborating their ideas on how to present their findings and work them up.

## TASK 1

In groups or individually, students work on developing their understanding of the image and the topic which it represents. They plan, create, and present an oral presentation to demonstrate their own reflections, findings, and the effects the image provokes.

Samples might include future impacts on the environment: a representation of key findings which depict the effects and possible solutions

- a discovery of alternative ways for our world development.
- possible universe creation starting with the question: What would happen if....

# **LEARNING ACTIVITIES**

Making a plan

Students brainstorm their ideas and choose their strategy. Then they create a plan built on their analysis and process it for making a script for their presentation.

Getting organised

Students need to manage their time especially if they work in groups. Those who work individually should keep in mind the steps of the given task: brainstorm, discover, plan, and create. For group presentations, students need to focus on assigning duties within the group as well as the stage of creation. They can brainstorm ideas together and then share their responsibilities with all members. For example, one student can look for resources and another one for images and together they can work on the script and the draft of their presentation. As soon as they have decided on the roles, they can start the main part.

# **KEY STAGES OF PRODUCTION AND REQUIRED RESOURCES**

During the stage of planning or pre-production, students devise the main concept and outline the steps of creation.

Key components of this stage are:

- strategy
- · script draft
- · frame concept
- · questions
- · images.

The stage of production includes students' work on producing the final version of their presentations.

At the stage of post-production, students combine the script, and the slides with the images and spend time on editing and reflecting on their image sequence and combination. Students might practice the speeches for their real presentations.

At the stage of distribution, students organize the final version of their presentation, which includes peer reflection or teacher feedback. Finally, students deliver their presentations in class. It might be followed by a class discussion.

# TIME TO CREATE: STORY

Students work individually developing their own understanding of the image. They can start to plan using the narrative structure. Students might start by elaborating their ideas on the number of characters, content, and timeframe. All stories should be built on their own reflections and thoughts using a narrative structure. This activity may be used as a part of NAPLAN writing preparations.

### Success criteria:

- · Students can develop and provide insight into the setting and characters.
- · Students can produce three or more developed events organised into paragraphs.
- Students can use three or more transitional devices: Plot device hook, message, cliffhanger.
- · Students can produce at least three details about each event.
- · Students include details that describe the problem and give insight into the cause.
- Student uses 3+ aspects of figurative language
- · Students consistently move the story forward.
- Student shows the inflection of characters noted: characters voice, scream shrieked,
   only one said, the rest are synonyms.
- · Students developed the solution with details.
- · Student shows the main character learned or changed.
- · Student shows a variety of descriptive adjectives and verbs used throughout.
- · Student shows story progression

# TASK 1

Students are aimed to develop the main idea of the image. Teachers might support students with their topics` development and the narrative structure.

Students brainstorm their ideas identifying the main one.

# Samples might include:

· Ideas for my writing: Who? What? Where? How?

- Characters
- · Content
- · Events
- Complication
- · Figurative language examples
- Punctuation I will use
- · Openers I could use

### TASK 2

Teachers might provide students with additional materials on how to use spelling rules and word origins to learn new words and how to spell them and use them in context. These words can help students with their writing.

Step 1: Students might create a list of Wonder Words for their topics:

The Wonder Words might include:

- · Ambitious Vocabulary
- · Meanings of words (Identify the base word and its meaning)
- Word families
- Etymology (Write the origin of the word)
- · Synonyms (Write three to five synonyms for your word)
- · Antonyms (Write three to five words with the opposite meaning)
- Step 2: Teachers might offer students to research the definition of 3, 4 or 5 of these words.
- Step 3: Teachers might offer students to write sentences with these words.

### TASK 3

- Step 1: Students work on planning their story, developing their ideas about characters, place, and sequence of events using the narrative structure.
- Step 2: Students go further, creating a draft of their story.
- Step 3: Students work on up-levelling their stories with the use of figurative language, connectors, transition words and synonyms.
- Step 4: Teachers might give students some time for peer review and peer feedback.
- Step 5: Students complete the final story.

## \_TIME TO CREATE: POEM

The next step in the development of creativity in children is the creation of poems that makes the imagination draw unusual pictures. Students work individually developing their own understanding of the image and developing the topic. Students might start by creating mind maps of words for their poems. All poems should be built on their own

reflections and thoughts using different poetry structures. This activity may be used as the final class for delivering poetry.

## LEARNING ACTIVITIES

### TASK 1

Students work to develop their understanding of the image and the topic which it represents. They plan, to create a poem to demonstrate their own reflections, findings, and the effects the image provoked.

Samples might include:

- · Topical Language
- Rhyming words, choose endings like: ing, action, ee, a\_e, i\_e
- · Emotive language

### **GENRE**

Creating the poems, students choose and follow different genres of poetry. To do this, they work out the type of poetry they like. Then make a plan and process for creating their poems which can be shown to the whole class when completed.

Samples might include:

- · Haiku Poems.
- · Slam Poetry.
- · Calligram Poetry.
- · Limerick.
- Narrative Poetry.
- · Kenning Poetry.
- · Free Verse poetry.
- · Sonnet

For example, Haiku, or haiku, a genre of Japanese poetry. There is no rhyme in haiku, no strict rhythm is observed. Often, ellipsis appears in the haiku finale. This is the principle of Japanese art. The world is forever changing, the Japanese believe, therefore there can be no completeness in art, there can be no peak - a point of balance and peace. In haiku, the poet awakens the imagination of the reader himself. The art of haiku is the ability to say a lot in a few lines. Children enjoy reading haiku, imagining, and creating their own images.

Slam poetry, also known as spoken word poetry, is typically performed at what is known as a "poetry slam".

It presents a message for action.

## **GETTING ORGANISED**

Students need to manage their time especially if they work in groups. Those who work individually should keep in mind the steps of the given task: brainstorm, discover, plan, and create. For group presentations, students need to focus on assigning duties within the group as well as the stage of creation. They can brainstorm ideas together and then share their responsibilities with all members. For example, one student can look for resources and another one for images and together they can work on the script and the draft of their presentation. As soon as they have decided on the roles, they can start the main part.

Samples might include:

- simile
- metaphor
- personification
- onomatopoeia
- hyperbole

# KEY STAGES OF CREATION AND REQUIRED RESOURCES

Teachers might provide students with additional materials on structural elements and rules. It might help them to choose the right words. These words can help students with their creations.

Samples might include:

- Structural Elements
  - Verse
  - Stanza
  - Refrain
- Sound Elements
  - Rhythm
  - Meter
  - Rhyme
- Additional Sound Devices
  - Repetition
  - Alliteration
  - Onomatopoeia

The stage of production includes students' work on producing the final version of their poems.

At the stage of post-production, students spend time on editing and reflecting on their poems and word combinations. Students might practice their poems by reading them in class.

At the stage of distribution, teachers might organize class readings. It might be followed by class discussion, students` reflections and peers` feedback.

### **YEARS 5: MATHS**

The assimilation of the material of the lesson by students largely depends on the teaching methodology and the involvement of students' imagination processes. So, the exact sciences such as mathematics require the assimilation of a large amount of theoretical material, however, its successful assimilation occurs during the direct involvement of students in the process of cognition. Therefore, conducting experiments is an essential element of not only applying the acquired knowledge but also developing the imagination of students. For a successful experiment, the student must present not only the result, but also the process, and have an image that changes in the process of work. In year 5, the study of volume and capacity makes the imagination work and develop.

# **Measuring Capacity**

**CURRICULUM CODES Australian Curriculum** 

ACMMG019

Measure and compare the lengths and capacities of pairs of objects using uniform informal units.

ACMMG037

Compare and order several shapes and objects based on length, area, volume, and capacity using appropriate uniform informal units.

"Is it enough?"

This activity can be used for understanding and exploration of the capacity concept.

In pairs, students need to measure the materials and the glass jar's capacity.

The task can encourage the development of imagination when dividing the task into stages.

Stage 1: Students are asked to examine objects in front of them: a glass jar, rocks, shells, and sand. The teacher asks the students to imagine and evaluate the

volume of the jar using the items on the desk. In this case, students are trying to imagine capacity, they combine the proposed elements and try to come up with some kind of solution.

Stage 2: I group students to start discussing their ideas and making experiments.

Stage 4: Students create a report using photos of all the procedures during their experiment.

Stage 4: Students share their findings with the class.

Stage 5: Wrap up

# Annexure B: Activities samples for parents

## 1. Draw a non-existent animal

### Task:

- ask a child to draw a non-existent animal using all available tools.
- ask a child to create a story about it.
- ask to tell or write the story

#### Time:

- 15-30 minutes for drawing
- 10 minutes for telling and 30-60 minutes for writing a story.

#### Outcomes:

This activity will allow the child to express himself, embody his own character, develop imagination skills, and identify basic needs for parents.

## 2. An unfinished drawing

#### Task:

- give a child a drawing with one image. For example, a spacecraft, an umbrella, or a mushroom in the middle of a piece of paper.
- ask a child to complete the drawing by adding elements or images using a pencil.
- ask a child to colour the final drawing.
- ask a child to tell a story on the drawing.

#### Time:

- 10-20 minutes for drawing.
- 5-10 minutes for telling a story.

#### Outcomes:

This activity gives the child the opportunity to select parts from the whole and see the whole figure using only part of it.

## 3. What does it look like?

#### Task:

- provide a child with a piece of paper with three or four geometrical figures on it scattered: a square, a triangle, a circle or half of the circle.
- ask a child to complete the shapes by turning them into something.
- ask a child to explain each image.

#### Time:

- 10 minutes for completing the figures.
- 10 minutes for explanations.

## Outcomes:

This activity will enable the child to develop imagination through the transformation of

images and objects around, as well as the understanding that the world is diverse and interesting, which in turn will lead to the expansion of the child's horizons.

## 4. If suddenly.....

### Task:

- ask a child what would happen if ......
- inspire a child to think and imagine the situation from different aspects and perspectives.

### Time:

• 10 minutes

#### Outcomes:

This activity will enable the child to create different perspectives for the development of events, will allow them to see situations from different sides and positions, and expand the possibilities of perceiving the world.

# 5. On a Walk

### Task:

 while walking together with a child to school or back, ask about different natural objects around: a cloud, a tree, a bush, a stone. What do they look like? Do they remind any other objects?

#### Time:

• depends on walking time.

## Outcomes:

This activity will enable the child to show imagination and develop imagination and create a connection between the child and the parent.

## 6. Fantastic image

Stimulus material: cards with depicted elements.

### Task:

The child is offered cards with the image of individual elements.

- ask a child to build a fantastic image (creature, object) from these elements.
- ask a child to describe what properties it has and how it can be used.

The more elements the created image includes, the more original it is, the brighter the child's imagination functions.

Time: 10-15 minutes.

### 7. Inner cartoon

Stimulus material: the text of the story.

#### Task:

• ask a child to listen to the story carefully and imagine that he/she is watching a

cartoon.

 say that when you stop the child will need to continue the story and then vice versa.

For example: "Summer morning and we left the house and went to the ocean. The sun is shining brightly, a pleasant light breeze is blowing"

Time: 10 minutes.

# 8. Draw the mood

Stimulus material: a piece of paper, watercolours, and brushes.

### Task:

- ask a child to draw your mood.
- ask a child to think about how sad or vice versa it is funny, or maybe something else.
- ask a child to draw it on paper in any way they like.

Time: 20 minutes.

## 9. Fairy tale in reverse

Task:

- ask a child to remember a favourite fairy tale?
- ask a child to tell it so that everything in it was "on the contrary". The good character became evil, and the evil character became good-natured. The little one turned into a giant, and the giant into a dwarf.

Time: 10-15 minutes.

## 10. Connect the sentences

The child is offered three tasks in turn, in which it is necessary to combine two sentences into a coherent story.

### Task:

- ask a child to listen to two sentences, they need to be combined into a story. For example: "There was a volcanic eruption far away on the island..." - "...that's why our cat was hungry today."
- The following suggestions can be used:

"A truck drove down the street ..." - "... so Santa Claus had a green beard."

"Mom bought fish in the store ..." - "... so I had to light candles in the evening."

Time: 15-20 minutes.

### 11. Transformations

Children are invited to depict game images in motion.

## Task:

• ask children to imagine that they have become a tiger that is making its way

through the jungle.

• ask children to picture it in motion.

After completing the task, the following is given: "robot", "eagle", "queen", and "boiling pot"

Time: 10-15 minutes.

## 12. Magic blots

Stimulus material: a piece of paper, ink, or paint.

#### Task:

- To start the game, several blots are made: a little ink or paint is poured into the middle of a piece of paper, then folded in half and unrolled and the game can begin.
- The players take turns saying what subject images they see in the blot or its individual parts.
- Whoever names the most items win.

Time: 10-15 minutes.

## 13. Search for analogues

### Task:

- An object or phenomenon is called, for example, a "helicopter".
- Write out as many of its analogues as possible, similar to it in various ways.
- In this case, for example, "bird", "butterfly" (they fly and land); "bus", "train" (vehicles); "corkscrew" (important details rotate) and others.
- The winner is the one who named the largest number of groups of analogues.

Time: 10-15 minutes.

## 14. Wonder Island

### Task:

- ask a child to create a story about the wonder island, where unprecedented animals live.
- ask a child to draw these animals that could live on this island.
- ask a child to create a story about one of them: what is its name, where does it live, what does it eat?

Time: 15-20 minutes.

## 15. Everyday fairy tale

Stories and fairy tales not only develop imagination but also allow you to discuss complex issues, and solve some problems with children's behaviour, for example, fears. To do this, parents introduce a topic relevant to the child into the plot and show how

the character copes in a similar situation. It is important to remember here: the main point is adventure, not moralizing.

### Task:

- come up with stories, for example, about a fork and a spoon or a lost sandal gone to New Zealand to visit a grandma.
- ask a child to join you: Where did the train go? Maybe at sea? What do boots like for lunch? Make it harder over time.
- ask a child to design and draw comics.

Time: 15-20 minutes

## 16. Play doodling

# Task:

- let a child put coloured spots with paints.
- quickly turn abstractions into little men, animals, robots, or flowers.
- switch roles.
- cut out the resulting creatures, and play with them.
- change materials too: gouache, watercolour, acrylic, crayons, pencils, felt-tip pens, ink, collage.

Time: 15-20 minutes

## 17. Inventors

## Task:

- Tell your child about who inventors are. And that everything around was once invented by someone. It would be nice to give a couple of examples.
- organize a scientist's laboratory, and issue tools.
- explain safety precautions.

Time: 30-40 minutes

# 18. Mood expression

## Task:

- ask a child to think about the colour of today's mood
- ask a child to draw it
- as a child to explain the choice of the shape and colours

Time: 5-10 minutes

Annexure C: RECRUITMENT OF RESEARCH PARTICIPANTS

Vygotsky's theory as a tool of imagination development in primary school.

My name is Valeriia Sibakova. I am conducting research as a part of my PhD

thesis under the supervision of Dr Robert Matthews at the School of Education,

University of Adelaide, South Australia, investigating the processes of formation and

development of primary school students' imagination.

I am writing to request a meeting with you to discuss the possibility of carrying

out a small research study at the school. I have a very high regard for the Waldorf

approach to education, especially its nurturing of the imaginative life of the child. The

study will take 30 minutes for the child in a group to complete. If you would prefer, I

am available to assist you in class with the delivery of the activity.

I would appreciate your participation in interviews, recruiting children for the

project by asking a concern from their parents/guardians, facilitating drawing activities

and fairy tale tasks with children, and recruiting parents/guardians for thequestionnaire.

I have 16 years of primary school teaching experience in Moscow and value

highly the support education can offer in the whole development of a young person. I

have always been open to exploring richer paths from the so-called "alternative"

traditions. I would be respectful and grateful for assistance from the school.

Please do not hesitate to contact me or my PhD supervisor for any further

clarification. Thank you for considering my letter. I look forward to hearing from

you.

Kind regards,

Valeriia Sibakova

Email: valeriia.sibakova@adelaide.edu.au

Mobile: 0423961507

And my principal supervisor's details:

Dr Robert Matthews

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Email:robert.matthews@adelaide.edu.au

Mobile: 0431 545 042

Annexure D: TEACHER INFORMATION SHEET

**PROJECT TITLE:** Vygotsky's theory as a tool of imagination development inprimary

school.

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-

**265 PRINCIPAL INVESTIGATOR:** 

Dear Participant,

You are invited to participate in the research project described below.

WHAT IS THE PROJECT ABOUT?

This study examines the different ways the imagination of 5th grade primary school

students is expressed. Two short classroom exercises, one involving a creative drawing

and the other a fairy tale, will be given to participating students under the guidance of

their teachers. An analysis of these exercises is hoped to reveal structural aspects in the

student's use of their imagination.

Schools have been purposely selected for the high value given to the imagination in

their student's lives.

WHO IS UNDERTAKING THE PROJECT?

This project is being conducted by Valeriia Sibakova. This research will form the basis

for the degree of PhD in Education at the University of Adelaide under the principal

supervision of Dr Robert Matthews and co-supervision of Assoc Prof Julie Matthews.

WHY AM I INVITED TO PARTICIPATE?

You are invited to participate in this study as you are a teacher of the 5th grade students

and will be able to make an invaluable contribution to this study, taking into account

your knowledge of students in this class.

WHAT AM I BEING INVITED TO DO?

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You are being invited to conduct a short interview with questions regarding your students and your own observations about them.

You are also asked to collect children's and parents/guardians' consent for participating in the drawing activity, to facilitate the drawing activity and fairy tale task with children with the assistance of the researcher, and to recruit parents/guardians for the questionnaire.

HOW MUCH TIME WILL MY INVOLVEMENT IN THE PROJECT TAKE?

This study will be conducted with a group of the 5th grade primary school students up to 20 people. Testing is carried out in two stages. At the first stage, students are given a leaflet and asked to come up with and draw a non-existent animal and call it a non-existent name. At the second stage, compose a fairy tale with the participation of "Non-existent" animal which will be made at the first stage. Each stage of the study is preceded by instructions. The approximate time is 30 min. You will be asked to distribute all the materials to students, give explanations, collect them, and pass all the data to the researcher either directly or via email. It will take you 15 min.

There will be three 15-minute interviews held by a convenient time for you as a participant.

There will be open-ended questionnaires for parents which you will be asked to send them and collect via email.

ARE THERE ANY RISKS ASSOCIATED WITH PARTICIPATING IN THIS PROJECT?

Locations and time for interview with you will depend upon agreement of both you and the researcher by considering the safety and convenience of both parties.

If, at any time, you experience distress, the interview will be discontinued. If you request to be released from study (at any time), participation will be automatically terminated, and data will not be included into the data set or will be destroyed upon request. No negative consequences will follow from such withdrawal. Any teacher who withdraws will be followed up to ensure discomfort/stress has subsided. The students and parents/guardian's data will also be destroyed if you withdraw.

The researcher's presence should not create additional risks of student discomfort or anxiety as the year 5 students. Moreover, the researcher has 14 years teaching background in Russia at Primary school. If you would prefer, the researcher is available to assist you with the activities in the classroom.

The only risk may be the amount of time spent on recruiting participants (children and parents) and facilitating the children with the task, but this risk is justified for two reasons. The first is associated with a pandemic situation and the risksassociated with the researcher being on site, and the second, children will feel more comfortable and relaxed with their teacher.

## WHAT ARE THE POTENTIAL BENEFITS OF THE RESEARCH PROJECT?

This study will create a list of recommendations for teachers on the development of imagination and, accordingly, will improve the assimilation and consolidation of knowledge by primary school students.

### CAN I WITHDRAW FROM THE PROJECT?

Participation in this project is completely voluntary. If you agree to participate, you can withdraw from the study at any time.

If, at any time, you experience distress, the interview will be discontinued. If you request to be released from study (at any time), participation will be automatically terminated, and data will not be included into data set or will be destroyed upon request. No negative consequences will follow from such withdrawal.

#### WHAT WILL HAPPEN TO MY INFORMATION?

The identity of the participants will be treated in the strictest confidentiality during data collection and analysis. All identifying content in the data will be removed or changed (where applicable) before publication to protect anonymity. The identity of the school will be protected by removal of all identifying information on any documentation collected. Your data will be stored on password protected University of Adelaide servers for a minimum of 5 years. Your de-identified data may be used by other researchers in projects that are an extension of, or closely related to, the original project.

The participants will receive the interview transcripts and summary of the research

result.

Feedback will be provided to teachers involved. They will disseminate to

students and parents in a manner they deem appropriate. The teachers are in the best

position to disseminate and respond to their students.

Any publication will have no traceable identifiers to original source. As the

sample size is small, complete anonymity cannot be guaranteed. However, the utmost

care will be taken to ensure that no personal identifying details are revealed. The

confidentiality and privacy of all participants will be upheld, and their views and

opinions will not be publicly accessible in a personally identifiable manner. The

researcher, the PhD supervisors will have the access to those materials.

Your information will only be used as described in this participant information

sheet and it will only be disclosed according to the consent provided, except as required

by law.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE PROJECT?

If you have questions, you can contact the researcher at the email address

valeriia.sibakova@adelaide.edu.au or with a principal supervisor at the email address

robert.matthews@adelaide.edu.au

WHAT IF I HAVE A COMPLAINT OR ANY CONCERNS?

The study has been approved by the Human Research Ethics Committee at the

University of Adelaide (approval number H-2020-265). This research project will be

conducted according to the NHMRC National Statement on Ethical Conduct in Human

Research 2007 (Updated 2018). If you have questions or problems associated with the

practical aspects of your participation in the project or wish to raise a concern or

complaint about the project, then you should consult the Principal Investigator. If you

wish to speak with an independent person regarding concerns or a complaint, the

University's policy on research involving human participants, or your rights as a

participant, please contact the Human Research Ethics Committee's Secretariat on:

Phone: +61 8 8313 6028

Email: hrec@adelaide.edu.au

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Post: Level 4, Rundle Mall Plaza, 50 Rundle Mall, ADELAIDE SA 5000

Any complaint or concern will be treated in confidence and fully investigated. You will

be informed of the outcome.

IF I WANT TO PARTICIPATE, WHAT DO I DO?

To participate in this study, you need to answer the researcher's email and send back

the signed consent form to participate in this study.

Yours sincerely,

PhD student: Valeriia Sibakova

Principal Supervisor: Robert Matthews

Co-supervisor: Assoc Prof Julie Matthews

## **Annexure E: TEACHER CONSENT FORM**

1. I agree to participate in the following research project:

Title:	Vygotsky's theory as a tool of imagination development in primary school.
Ethics Approval Number:	H-2020-265

- 2. I have read the attached Information Sheet and had the project, so far as it affects me and the potential risks and burdens, fully explained tomy satisfaction by the research worker. I have had the opportunity to askany questions I may have about the project and his/her participation. My consent is given freely.
- 3. Although I understand the purpose of the research project, it has also been explained that involvement may not be of any benefit to me.
- 4. I agree to participate in the activities as outlined in the participant information sheet.
- 5. I have been informed that the information gained in the projectmay be published in a book/journal article/thesis/news article/conference presentations/website/report.
- 6. I have been informed that in the published materials I will not be identified, and my personal results will not be divulged.
- 7. I consent for the use of my data by the same or other researchers in future research projects that are an extension of, or closely related to, the original project. I understand personal information that may identifyme (e.g., name, address, dare of birth) will be removed or changed beforeit is shared with other researchers:

Yes No

- 8. I understand that the information received from me will only be disclosed according to the consent provided, except where disclosure is required by law. As the sample size is small, complete anonymity cannot be guaranteed. However, the utmost care will be taken to ensure that no personal identifying details are revealed. The confidentiality and privacy of all participants will be upheld, and their views and opinions will not be publicly accessible in a personally identifiable manner. Digital materials (records, transcripts, etc) will be stored on password protected university servers and all hardcopy data will be stored in locked cabinets.
- 9. I agree to be:

Audio recorded Yes No

10. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet. Name:

Signature:

Annexure F: PARENT/GUARDIAN INFORMATION SHEET

Parents/guardian participation

**PROJECT TITLE:** Vygotsky's theory as a tool of imagination development inprimary

school.

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

Dear Participant,

You are invited to participate in the research project described below.

WHAT IS THE PROJECT ABOUT?

This study examines expression of the imagination of 5th grade primary schoolstudents.

Two short classroom exercises, one involving a creative drawing and the othera fairy tale

task, will be given to participating students and supervised by their teachers. An analysis

of these exercises is hoped to reveal structural aspects in the student's useof their

imagination. Schools have been purposely selected for the high value given to the

imagination in their student's lives.

WHO IS UNDERTAKING THE PROJECT?

This project is being conducted by Valeriia Sibakova. This research will form the basis

for the degree of PhD in Education at the University of Adelaide under the principal

supervision of Dr Robert Matthews and co-supervision of Assoc Prof Julie Matthews.

WHY AM I BEING INVITED TO PARTICIPATE?

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You are being invited as you are the parent/guardian of a 5th grade student, whose teacher has agreed to participate in this study. You are under no obligation to participate in this study, nor is your child.

WHAT AM I BEING INVITED TO DO?

You will be asked to answer a short questionnaire regarding your child's imaginative play. You will receive the questionnaire from your child's teacher either via email or as a hard copy. Completed questionnaires may then be returned to the teacher via emailor as a hard copy.

If you choose not to do the questionnaire, you may still give consent for your child to participate in the study.

HOW MUCH TIME WILL MY INVOLVEMENT IN THE PROJECT TAKE?

The questionnaire is estimated to take approximately 10 minutes to complete.

ARE THERE ANY RISKS ASSOCIATED WITH PARTICIPATING IN THIS PROJECT?

There are no perceived risks involved in your participation. If you agree to participate, you can withdraw from the study at any time. Please note that once the thesis is submitted, your data can be removed from the data set, but the thesis cannot be amended to remove your contribution. The expected completion data for the thesis is 08/2023. Your participation will be automatically terminated, and your data will not be included in the dataset. You may also request to have your data permanently removed from the record. No consequences will follow from such withdrawal.

The researcher's presence should not create additional risks of student discomfort or anxiety as the year 5 students. Students are familiar with seeing a range of people (relief teachers for example) and most importantly, their teacher would have explained the researcher's presence prior to the class and will always be present in the room.

Moreover, the researcher has 14 years teaching background in Russia at Primary school. The Deputy Principals requested the researcher's participation because they consider it would be useful for students' social skills development.

The student will be informed about the purpose of the research and that their work is unique and important for further development of the learning process.

#### WHAT ARE THE POTENTIAL BENEFITS OF THE RESEARCH PROJECT?

This study will create a list of recommendations for teachers on the development of imagination and, accordingly, will improve the assimilation and consolidation of knowledge by primary school students.

#### CAN I WITHDRAW FROM THE PROJECT?

Participation in this project is completely voluntary. If you agree to participate, you can withdraw from the study at any time. Please note that once the thesis is submitted, your data can be removed from the data set, but the thesis cannot be amended to remove your contribution. The expected completion data for the thesis is 08/2023. If you have already submitted a completed questionnaire, this data will not be included in the study and the data will be destroyed.

#### WHAT WILL HAPPEN TO MY INFORMATION?

The identity of the participants will be treated in the strictest confidentiality during data collection and analysis. All identifying content in the data will be removed or changed (where applicable) before publication to protect anonymity. The identity of the school will be protected by removal of all identifying information on any documentation collected. Your data will be stored on password protected University of Adelaide servers for a minimum of 5 years. Your de-identified data may be used by other researchers in projects that are an extension of, or closely related to, the original project.

The participants will receive the interview transcripts and summary of the research result.

Feedback will be provided to teachers involved. They will disseminate to students and parents in a manner they deem appropriate. The teachers are in the best position to disseminate and respond to their students.

Any publication will have no traceable identifiers to original source. As the sample size

is small, complete anonymity cannot be guaranteed. However, the utmost care will be

taken to ensure that no personal identifying details are revealed. The confidentiality and

privacy of all participants will be upheld, and their views and opinions will not be

publicly accessible in a personally identifiable manner. The researcher, the PhD

supervisors will have access to those materials.

Your information will only be used as described in this participant information

sheet, and it will only be disclosed according to the consent provided, except as required

by law.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE PROJECT?

If you have questions, you can contact the researcher at the email address

valeriia.sibakova@adelaide.edu.au or with a principal supervisor at the email address

robert.matthews@adelaide.edu.au

WHAT IF I HAVE A COMPLAINT OR ANY CONCERNS?

The study has been approved by the Human Research Ethics Committee at the

University of Adelaide (approval number H-2020-265). This research project will be

conducted according to the NHMRC National Statement on Ethical Conduct in Human

Research 2007 (Updated 2018). If you have questions or problems associated with the

practical aspects of your participation in the project or wish to raise a concern or

complaint about the project, then you should consult the Principal Investigator. If you

wish to speak with an independent person regarding concerns or a complaint, the

University's policy on research involving human participants, or your rights as a

participant, please contact the Human Research Ethics Committee's Secretariat on:

Phone: +61 8 8313 6028

Email: hrec@adelaide.edu.au

Level 4, Rundle Mall Plaza, 50 Rundle Mall, ADELAIDE SA 5000

Any complaint or concern will be treated in confidence and fully investigated. You will

be informed of the

outcome.

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IF I WANT TO PARTICIPATE, WHAT DO I DO?

Please follow your child's teacher's instructions and submit the questionnaire. Submission of your responses is considered as your consent to participate in the survey

and that you have read and understood the above information.

Yours sincerely,

PhD student: Valeriia Sibakova

Principal Supervisor: Robert Matthews

Co-supervisor: Assoc Prof Julie Matthews

Annexure G: PARENT/GUARDIAN INFORMATION SHEET

Children participation

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary

school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-

2020-265

Dear Parent/Guardian,

Your child is invited to participate in the research project described below.

WHAT IS THE PROJECT ABOUT?

This study examines the different ways the imagination of 5th grade primary school

students is expressed. Two short classroom exercises, one involving a creative drawing

and the other a fairy tale task, will be given to participating students and supervised by

their teachers with the researcher's assistance. An analysis of these exercises is hoped

to reveal structural aspects in the student's use of their imagination. Schools have been

purposely selected for the high value given to the imagination in their student's lives.

WHO IS UNDERTAKING THE PROJECT?

This project is being conducted by Valeriia Sibakova. This research will form the basis

for the degree of PhD in Education at the University of Adelaide under the principal

supervision of Dr Robert Matthews and co-supervision of Assoc Prof Julie Matthews.

WHY IS MY CHILD BEING INVITED TO PARTICIPATE?

Your child is being invited as a 5th grade student; whose teacher has agreed to

participate in this study. Your child is under no obligation to join in this study.

WHAT IS MY CHILD INVITED TO DO?

Your child will be asked to draw a non-existent animal, give it a name, and compose a

fairy tale with its participation during school time as a usual class activity.

Your child can refuse to participate in the task at any stage at any time.

If you choose not to do the questionnaire, you may still give a consent to your child for

participation in the study.

HOW MUCH TIME WILL MY CHILD'S INVOLVEMENT IN THE PROJECT TAKE?

It is estimated to take approximately 30 minutes to complete in class.

ARE THERE ANY RISKS FOR MY CHILD ASSOCIATED WITH PARTICIPATING IN THIS

PROJECT?

There are no perceived risks involved in your child's participation. The researcher will

be introduced to students by their teacher. The researcher has WWC and Police Checks.

The researcher's presence should not create additional risks of student discomfort or

anxiety as the year 5 students. Students are familiar with seeing a range of people (relief

teachers for example) and most importantly, their teacher would have explained the

researcher's presence prior to the class and will always be present in the room.

Moreover, the researcher has 14 years teaching background in Russia at Primary school.

The Deputy Principals requested the researcher's participation because they consider it

would be useful for students' social skills development.

The student will be informed about the purpose of the research and that their

work is unique and important for further development of the learning process.

WHAT ARE THE POTENTIAL BENEFITS OF THE RESEARCH PROJECT?

This study will create a list of recommendations for teachers on the development of

imagination and, accordingly, will improve the assimilation and consolidation of

knowledge by primary school students.

CAN YOUR CHILD WITHDRAW FROM THE PROJECT?

Participation in this project is completely voluntary. Your child can withdraw from the

study at any time. If you have already submitted a completed questionnaire, this data

will not be included in the study and the data destroyed. If you agree for your child to

participate, you and your child can withdraw from the study at any time. Please note

that once the thesis is submitted, data can be removed from the data set, but the thesis cannot be amended to remove your child's contribution. The expected completion data for the thesis is 08/2023.

WHAT WILL HAPPEN TO MY CHILD'S INFORMATION?

The identity of the participants will be treated in the strictest confidentiality during data collection and analysis. All identifying content in the data will be removed or changed (where applicable) before publication to protect anonymity. The identity of the school will be protected by removal of all identifying information on any documentation collected. Your data will be stored on password protected University of Adelaide servers for a minimum of 5 years. Your de-identified data may be used by other researchers in projects that are an extension of, or closely related to, the original project.

Any publication will have no traceable identifiers to original source. A small sample size cannot provide a complete guarantee of anonymity; however, all possible measures will be taken to not disclose the personal data of research participants. No personal opinions or views of the participants will be reflected anywhere or made public.

Digital materials (records, transcripts, etc) will be stored on password protected university drivers. The researcher, the PhD supervisors will have the access to those materials.

Your information will only be used as described in this participant information sheet and it will only be disclosed according to the consent provided, except as required by law.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT THE PROJECT?

If you have questions, you can contact the researcher at the email address

valeriia.sibakova@adelaide.edu.au or with a principal supervisor at the email address

robert.matthews@adelaide.edu.au

WHAT IF I HAVE A COMPLAINT OR ANY CONCERNS?

The study has been approved by the Human Research Ethics Committee at the

University of Adelaide (approval number). This research project will be conducted

according to the NHMRC National Statement on Ethical Conduct in Human Research

2007 (Updated 2018). If you have questions or problems associated with the practical

aspects of your participation in the project or wish to raise a concern or complaint about

the project, then you should consult the Principal Investigator. If you wish to speak with

an independent person regarding concerns or a complaint, the University's policy on

research involving human participants, or your rights as a participant, please contact the

Human Research Ethics Committee's Secretariat on:

Phone: +61 8 8313 6028

Email: hrec@adelaide.edu.au

Post: Level 4, Rundle Mall Plaza, 50 Rundle Mall, ADELAIDE SA 5000

Any complaint or concern will be treated in confidence and fully investigated. You will

be informed of the outcome.

IF I WOULD LIKE MY CHILD TO PARTICIPATE, WHAT DO I DO?

To participate in this study, you need to sign this form and return it to your child's

teacher or send it via teacher's email. This document will be a confirmation of your

consent for your child to participate in this study.

Yours sincerely,

PhD student: Valerija Sibakova

Principal Supervisor: Robert Matthews

Second supervisor: Assoc Prof Julie Matthews

#### Annexure H: PARENTS/GUARDIANS CONSENT FORM

#### Children participation

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

1.	I give consent to		·s
involvement	in the following res	search project:	

Title:	Vygotsky's theory as a tool of imagination development in primary school.
Ethics Approval Number:	H-2020-265

- 2. I have read the attached Information Sheet and had the project, so far as it affects him/her, and the potential risks and burdens fully explained to my satisfaction by the research worker. I have had the opportunity to ask any questions I may have about the project and his/her participation. My consent is given freely.
- 3. I have been given the opportunity to have a member of my family or a friend present while the project was explained to me.
- 4. Although I understand the purpose of the research project, it has also been explained that involvement may not be of any benefit to him/her.
- 5. I agree for him/her to participate in the activities as outlined in the participant information sheet.
- 6. I have been informed that the information gained in the project may be published in a book/journal article/thesis/news article/conference presentations/website/report.
- 7. I have been informed that in the published materials he/she will not be identified and his or her personal results will not be divulged.
- 8. I consent for the use of my data by the same or other researchers in future research projects that are an extension of, or closely related to, the original project. I understand personal information that may identify me (e.g., name, address, dare of birth) will be removed or changed before it is shared with other researchers:

#### Yes No

9. I understand his/her information will only be disclosed according to the consent provided, except where disclosure is required by law. Any publication will have no traceable identifiers to original source. A small sample size cannot provide a complete guarantee of

anonymity; however, all possible measures will be taken to not disclose the personal data of research participants. No personal opinions or views of the participants will be reflected anywhere or made public. Digital materials (records, transcripts, etc) will be stored onpassword protected university drives.

10. I am aware that I should keep a copy of this Consent Form, when complet and the attached Information Sheet.	ted,
Third Party to Participant to complete:	
Name:Signature:	
Relationship to participant:	
Date:	
Name and age of participant:	

Annexure I: STUDENT CONSENT FORM

(to complete and sign by students)

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary school.

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

My name is Valeriia Sibakova. I am a researcher at The University of Adelaide, and I want to

find out how children create images and how they can be used in the story. This study examines

the different ways the imagination of 5th grade primary school students is expressed. I want to

ask you to help me in this study by being creators. That means I want you to design you own

creature and create a story about it. An analysis of these exercises is hoped to reveal structural

aspects of different types of imagination.

PLEASE READ THE STATEMENT AND TICK THE BOXES IF YOU AGREE WITH THEM:

I am happy to take part in this project

I am not happy to take part in this project

I know I can ask to not take part in this project at any point

My name is.....

To be completed by teacher: Date:

# Annexure J: QUESTIONNAIRE FOR PARENTS/GUARDIANS

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL

NUMBER: H-2020-265

QUESTIONNAIRE FOR PARENTS/GUARDIANS			
Data Iden	tity		
Site/Venue:			
Duration:	10 minutes		
Questionnaire Goals:		1.	To explore parents/guardians' experiences with students' abilities, their daily habits, and inclinations that parent observe daily.
		2.	To create a complete picture of the environment surrounding primary school students.
Type of Questionnair	re: Open-ended		
Qu	estions		Parent/guardian`s responses
How often do	es your child draw?		
	child describes an event in their they embellish the story or just tell of fact?		
What are you activities?	r child`s preferred after school		
Does your ch clothes?	ild have any preferences in food	or	

When your child gets bored, what are their go to	
activities to alleviate their boredom?	

How does your child react to music?	
How often does the child like to compose or tell fairy tales or stories?	
How often does your child have unusual dreams?	
Can you recall some of your child's favourite books or movies and describe what interests them in these stories?	
What is your child`s favourite play activity?	

#### **Annexure K: TEACHER INTERVIEW PROTOCOL**

# TEACHER INTERVIEW PROTOCOL

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

TEACHER INTERVIEW PROTOCOL		
Data Identity		
Site/Venue:		
Duration:	15 minutes	
Interview Goals:		1. To explore teacher experiences with students` abilities, their daily habits, and inclinations that teacher observe daily.
		2. To create a complete picture of the environment surrounding primary school students.
Type of Interview	Semi-structured	
Nature of	<b>Interview Questions</b>	
The follow	ring questions will be ela	borated depending on the teachers' responses:
Qu	estions	Note
How many ye	ears have you been a sch	ool teacher?
Can you desc	ribe what you think a ch	ild's imagination is?
1 7 -	ion, is the imagination o be developed?	something inherent or

	If you think it is something that needs to be developed, how often do you give activities that use your students' imagination and can you describe some of these activities?	
How strong is the imagination in this class of students relative to others that you have taught?		

Annexure L: Criteria for evaluating students` drawings and fairy tales (The researcher will undertake the evaluation)

PROJECT TITLE: Vygotsky`s theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

Criteria for evaluating the picture "Non-existent animal"

Туре	Criteria	
Reproductive	The child copes well with the task of reconstructing something	
imagination	familiar to him, but cannot come up with something new, unusual. The child invented and painted something that in general is not new. Details and images of the figure worked out medium.	
Expression of	The child invented and painted something that, on the whole,	
experience	is not new, but carries obvious elements of a combination of images known to him from the outside world. Details and images of the figure worked out medium.	
Emotional reality	The child invented and painted something quite original, with fantasy, emotional and colourful, although the image is not completely new. Details of the picture worked out well.	
Crystallized imagination	The child willingly designs unusual objects, tries to see the unusual in the ordinary. The child in the allotted time invented and painted something original, unusual, clearly testifying to an extraordinary fantasy, a rich imagination. The drawing makes a great impression on the viewer, his images and details are carefully designed.	

# Criteria for evaluating a fairy tale according to the drawing "Non-existent animal"

Type	Criteria	
Reproductive	In the tale, the plot line is borrowed from fairy tales already	
Ŭ	known to the child. The hero of the picture becomes one of	
	the characters in an existing fairy tale taken as a basis. All the events in the fairy tale completely repeat the simple plot	
	without additional details.	
Expression of	In the fairy tale, the plot line is borrowed from fairy tales	
	already known to the child, however the hero of the picture	
	becomes an additional character. In the tale, the logic of the	
	development of the plot is observed, the richness of the	
	dictionary, the correct use of speech forms are widely used.	
Emotional reality	The fairy tale is built on the basis of a fairy tale already	
	known to the child and the non-existent animal in his	
	drawing becomes an additional character, however, thefairy tale has accents on the details that show the emotional	
	involvement of the child. It reflects the emotional state of	
	the child, his cherished desires, behavioural features.	
Crystallized	The plot of the tale is interesting, original, individual. The tale	
imagination	contains a unique storyline that is different from all known to	
	the child. The character of the picture is a non-existent animal	
	described with many different details and all the actions of the	
	tale are interconnected and thought out. The total number of different living creatures, objects, situations and actions,	
	characteristics and signs attributed to all this in the child's story	
	is also recorded.	

# **Annexure M: Activity**

PROJECT TITLE: Vygotsky`s theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

Sample activity			
Year level	Year 5		
Title of activity	Non-existent animal		
Activi	ty details		
Description of activity	Students will work individually. At the first stage, they will come up with a non-existent animal and draw it, and at the second stage they will create a fairy tale with its participation.		
Purpose of activity	To reveal what types of imagination children of this age have		
Activity strategy	Individual, work samples		
Evidence to be collected	work samples		
Suggested time	30 minutes		
Content	description		
The first stage	Students are asked to come up with and draw a non- existent animal and call it a non-existent name. The students will be given an unlimited opportunity for self- expression.		
Instr	ructions		
Instructions for students	Invent and draw a non-existent animal and call it a non- existent name.		

Instructions for teachers	Explain to students that the animal should be invented precisely by him, entice him with this task - to create such a creature that no one has invented before him. This should notbe a character from cartoons, computer games or fairy tales that has already been seen. Ask the students to work independently.	
The second stage	At the second stage, compose a fairy tale with the participation of this animal.	
	Instructions	
Instructions for students	Compose a fairy tale with the participation of your invented animal. Think about the idea, place, events, other heroes, and their relationship.	
Instructions for teachers	Explain to students that they need to come up with events and other heroes. Also, to think over the plot and the idea of their tales. Specify that the action of a fairy tale can take place anywhere and everything that they can imagine is possible in it. Ask the students to work independently.	
Activity		

Assessment conditions	Individual, in-class assessment task
Resources	Standard sheet of white and a simple pencil medium hardness. Students can use any drawing tools they have.

#### Annexure N: TEACHER'S LETTER TO PARENTS/GUARDIANS

PROJECT TITLE: Vygotsky's theory as a tool of imagination development in primary school. HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2020-265

DEAR PARENT/GUARDIAN.

#### Invitation to take part in the research.

You and your child are invited to be a part of the following research project. The research is conducted by Valeriia Sibakova as part of her PhD studies in the School of Education at the University of Adelaide under the principal supervision of Dr Robert Matthews and co-supervision of Associate Professor Julie Matthews.

The study is interested in the expression of the imagination of grade 5 primary school students. It consists of your child drawing a non-existent animal and writing a makebelieve fairy tale. These activities will be run by their teacher with assistance of the researcher in the same manner as any other classroom activity. It is expected to take around 30 minutes. Clear instructions will be given to your child to guide them through the exercises. This is anticipated to run just like any other lesson activity, the difference being the materials will be collected for analysis.

It is hoped that the analysis of their drawings and fairy tales will reveal qualities showing how the imagination expresses at this age. There is currently little research in this area.

As a parent/guardian, you are also invited to take part in this study by answering questions about your child's habits, hobbies, and interests.

Your participation in this research is completely voluntary. There will be no adverse consequences if you decline to consent to this research.

Your personal information is protected by law, including the Privacy act 1988. All information you and your child provide is confidential and will be used for research purposes only Safeguards have been built into the project to protect confidentiality of any materials gathered. Any publication will be fully de-identified so as to protect the anonymity of your child's creative product and any information you give during

interview. The project has been given ethics approval by the University ethics

committee (No).

If you and your child would like to participate, please sign, and return the attached

consent forms to your child's teacher. By signing and returning the consent forms, you

indicate that you have read and understood the attached Participation Information

Sheets.

If you have any further questions concerning this study, please contact the researcher:

Valeriia Sibakova

Email: sibakova.valeriia@adelaide.edu.au

Kind regards,

#### **Annexure O: ETHICS APPROVAL**

Our reference 34621 14 December 2020

Dr Robert Matthews School of Education

#### RESEARCH SERVICES

OFFICE OF RESEARCH ETHICS, COMPLIANCE, AND INTEGRITY THE UNIVERSITY OF ADELAIDE

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CRICOS Provider Number 00123M

Dear Dr Matthews

ETHICS APPROVAL No: H-2020-265

**PROJECT TITLE:** Vygotsky's theory as a tool of imagination development in primary school

The ethics application for the above project has been reviewed by the Low Risk Human Research Ethics Review Group (Faculty of Arts and Faculty of the Professions) and is deemed to meet the requirements of the *National Statement on Ethical Conduct in Human Research 2007 (Updated 2018)* involving no more than low risk for research participants.

You are authorised to commence your research on: 14/12/2020 The ethics expiry date for this project is: 31/12/2023

#### NAMED INVESTIGATORS:

Chief Investigator: Dr Robert Matthews

Student - Postgraduate

Doctorate by Research (PhD): Mrs Valeriia Sibakova

Associate Investigator: Associate Professor Julie Matthews

**CONDITIONS OF APPROVAL:** Thank you for addressing the feedback. The revised ethics application provided on the 11th of December 2020 has been approved.

Ethics approval is granted for three years and is subject to satisfactory annual reporting. The form titled Annual Report on Project Status is to be used when reporting annual progress and project completion and can be downloaded at http://www.adelaide.edu.au/research-services/oreci/human/reporting/. Prior to expiry, ethics approval may be extended for a further period.

Participants in the study are to be given a copy of the information sheet and the signed consent form to retain. It is also a condition of approval that you immediately report anything which might warrant review of ethical approval including:

serious or unexpected adverse effects on participants,

previously unforeseen events which might affect continued ethical acceptability of the project, proposed changes to the protocol or project investigators; and the project is discontinued before the expected date of completion.

Yours sincerely,

Dr Susan Hemer Convenor Ms Kellie Toole Convenor The University of Adelaide

# Annexure P: STUDENTS` DRAWINGS. SCHOOLS 1,2,3

**School 1 Drawings.** 

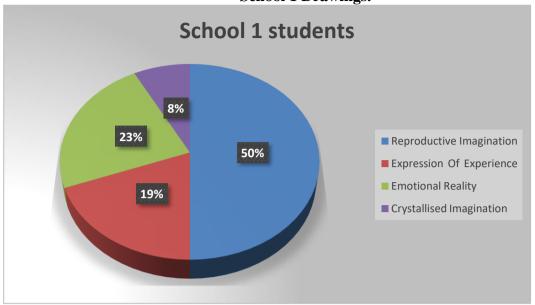


Figure 2. School 1 student's drawings



Figure 2. Siren Head the student's drawing



Figure 3. Siren Head Google character



Figure 4. Reproductive Imagination



Figure 5. Expression of Experience

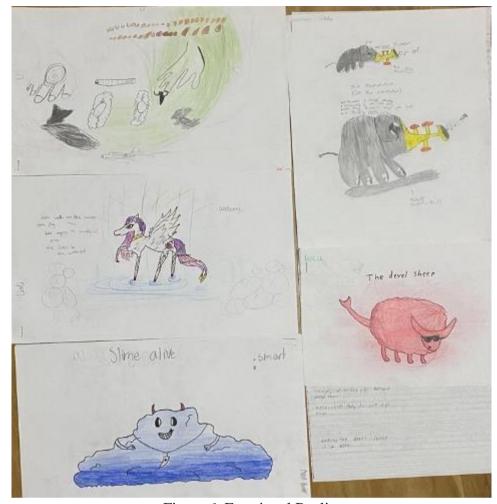


Figure 6. Emotional Reality

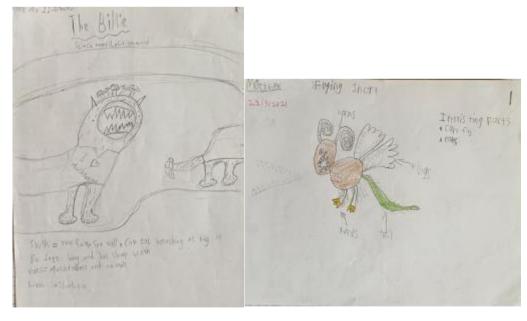


Figure 7. Crystalised imagination

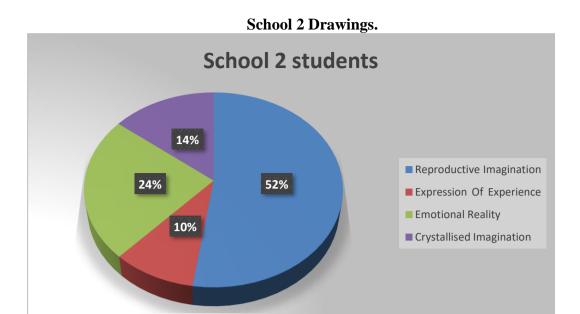


Figure 9. School 2 students` drawings





Figure 7. Reproductive Imagination



Figure 8. A snake and a girl with fiery red hair



Figure 9. A rocket equipped with weapons on both sides



Figure 10. Emotional Reality students` drawings



Figure 11. Emotional Reality



Figure 12. Crystalised Imagination students' drawings

# **School 3 drawings**

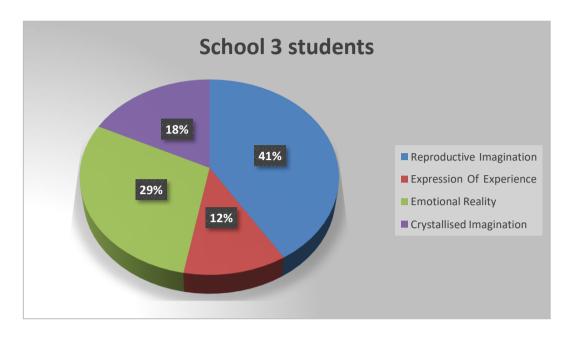


Figure 16. School 3 students' drawings



Figure 13. Student's drawing



Figure 14. Student's drawing



Figure 15. Student's drawing





Figure 16. Students` drawings



Figure 17. Expressions of experience

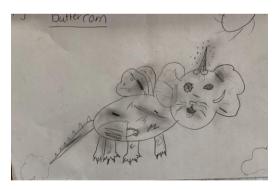


Figure 18. Student's drawing



Figure 19. Emotional reality



Figure 20. A pencil and a hare, student's drawing



Figure 21. Student's drawing



Figure 22. Student's drawing



Figure 23. Student's drawing



Figure 24. Student's drawing

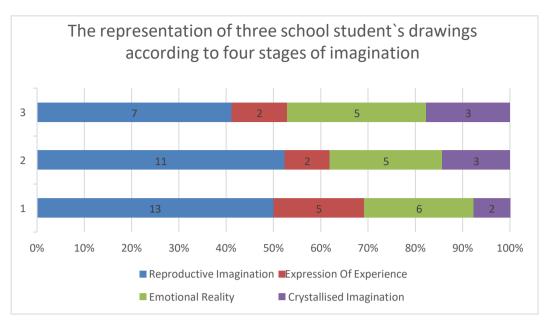
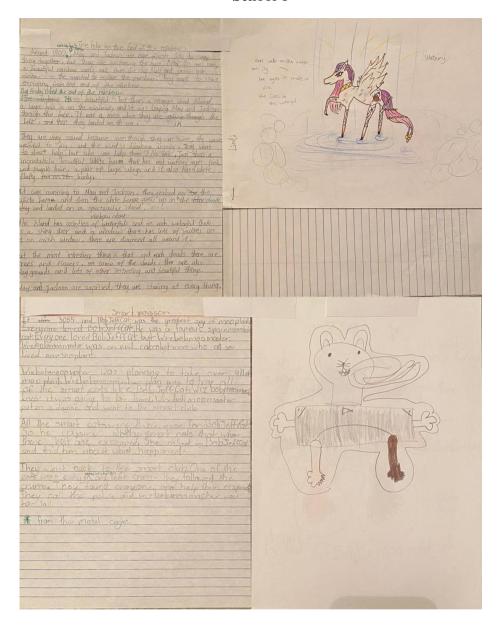
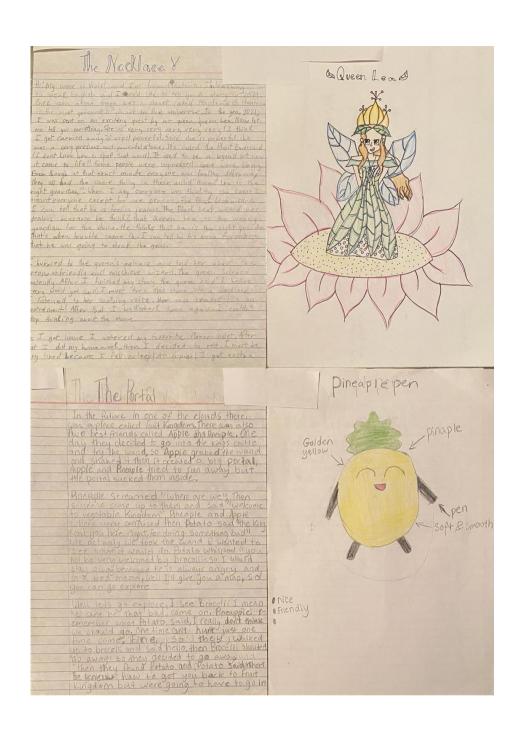


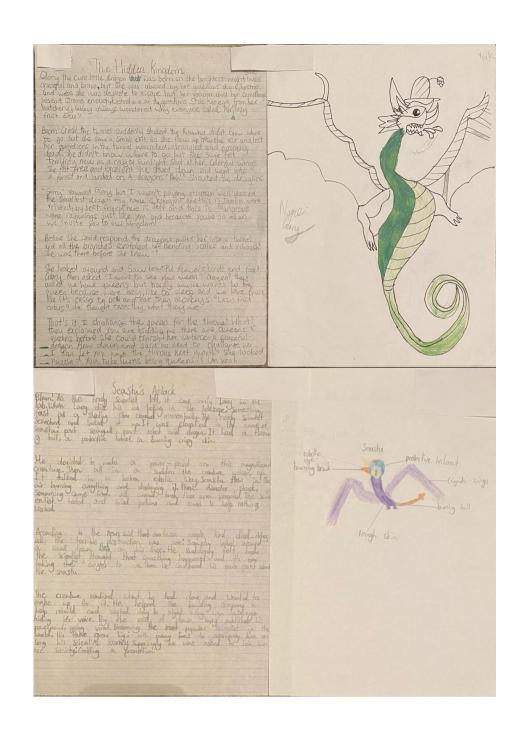
Figure 25. The Representation of three school students` drawings according to four stages of imagination

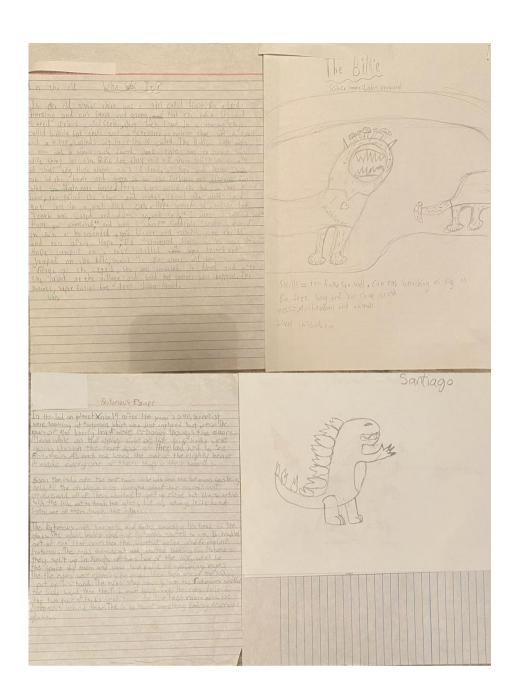
### Annexure Q: FAIRY TALES. SCHOOLS 1, 2, 3

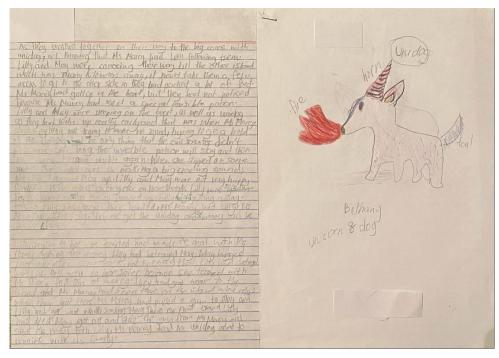
#### School 1

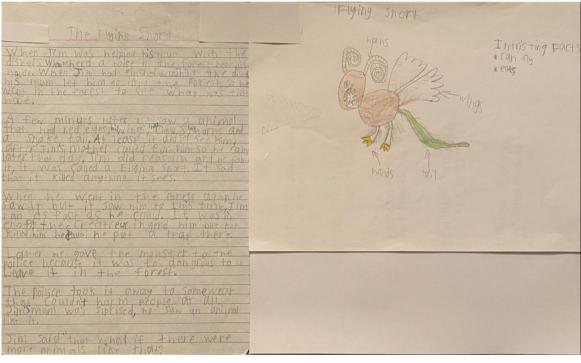




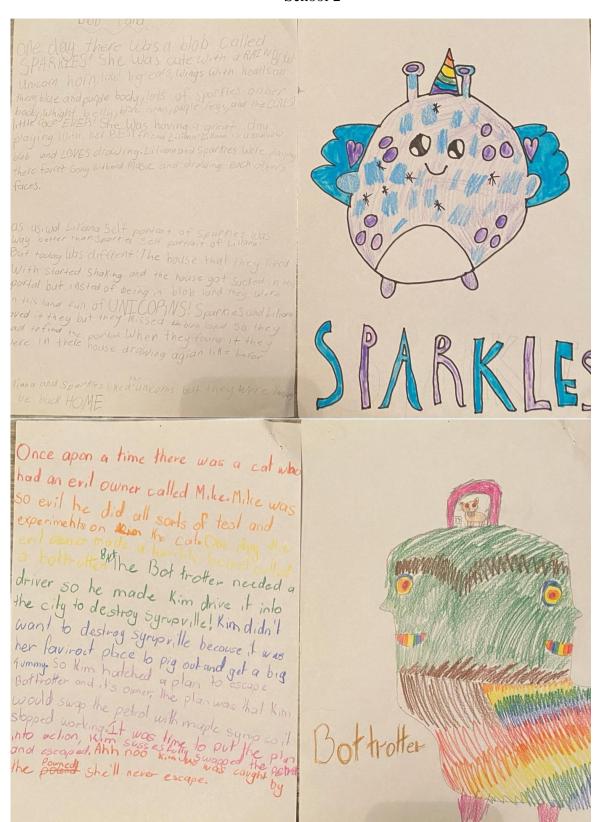


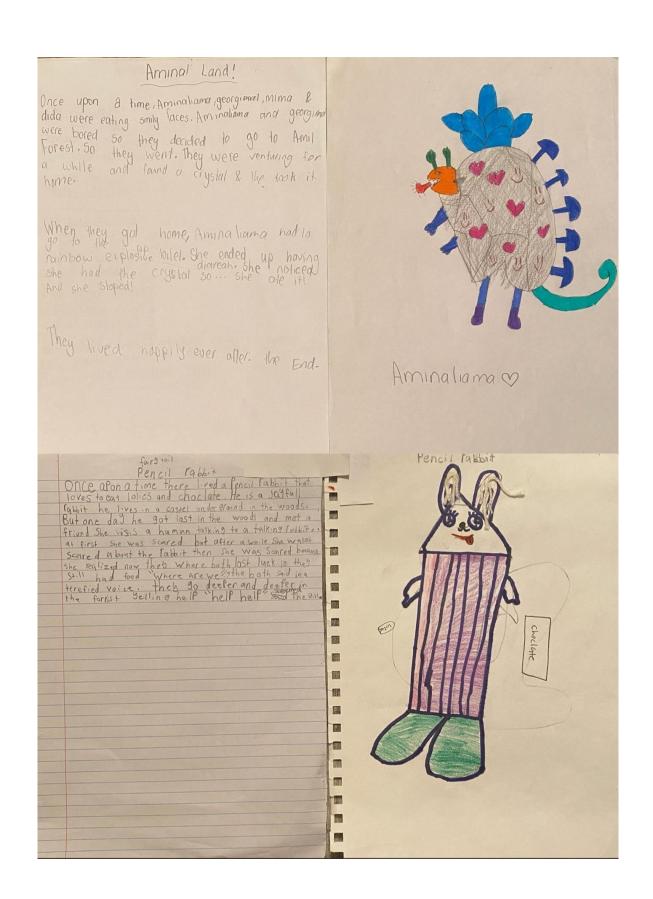


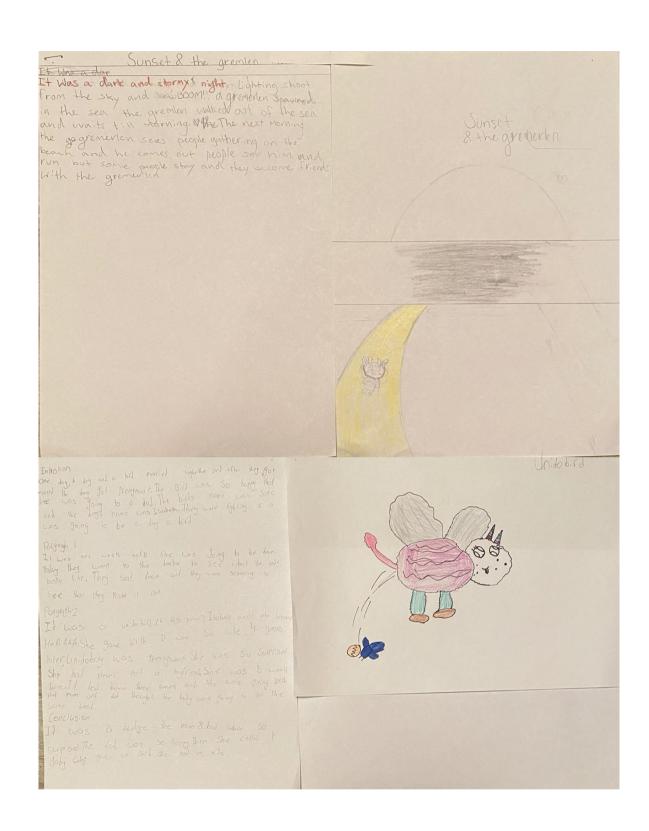


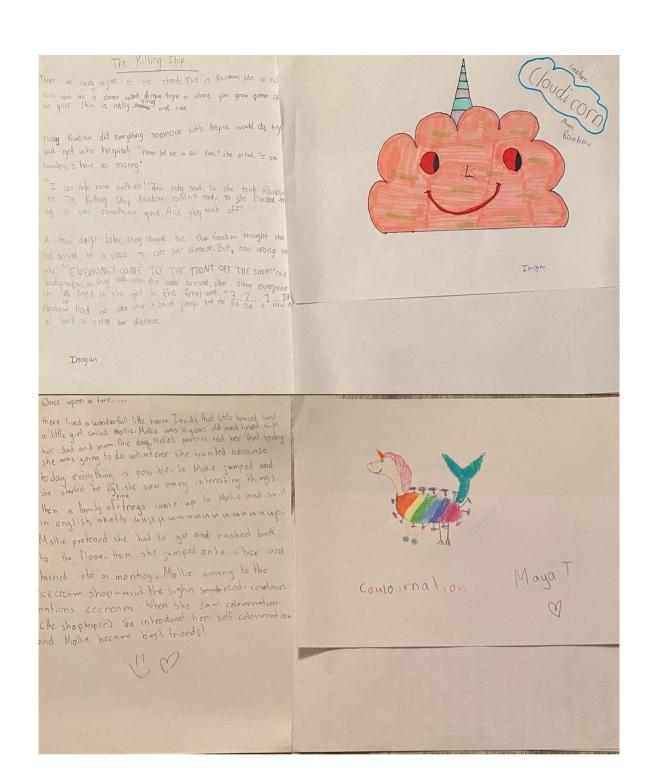


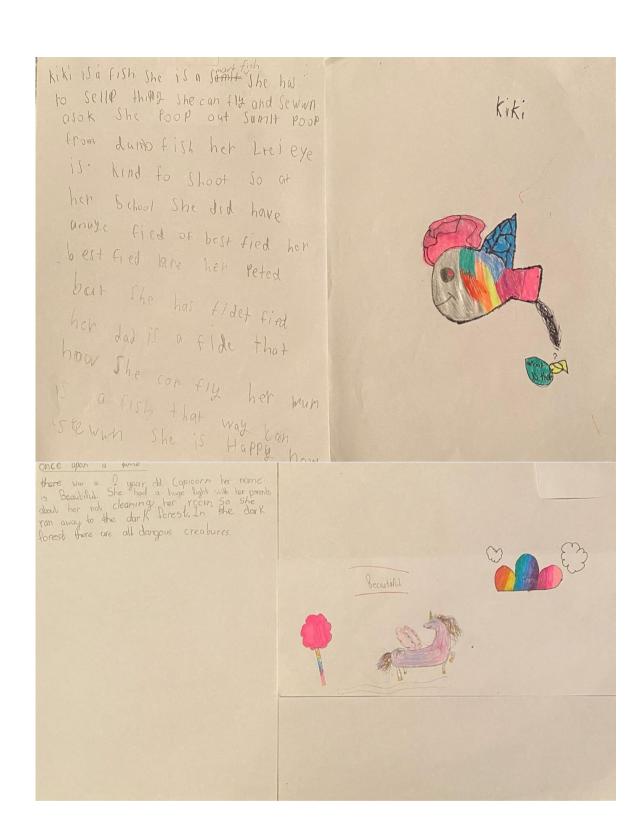
## School 2

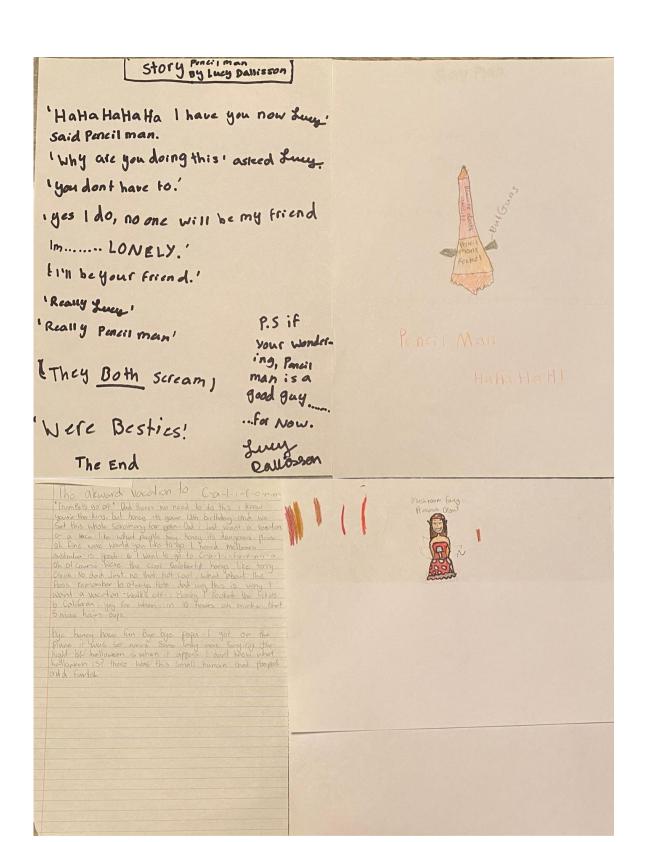


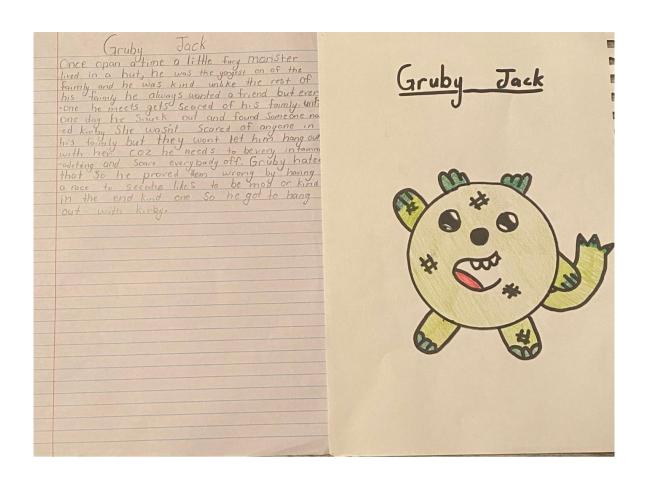




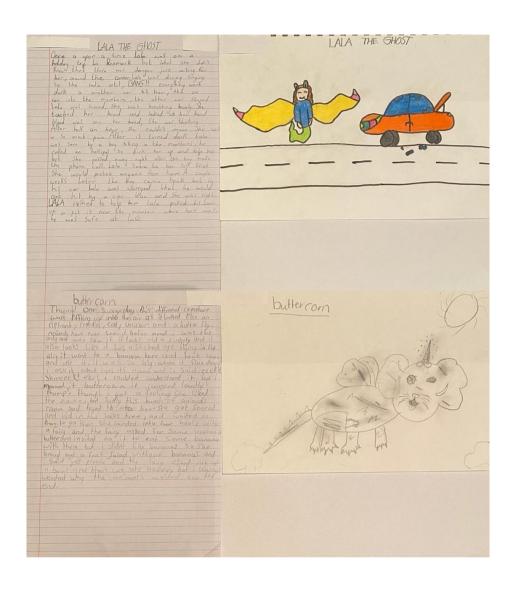


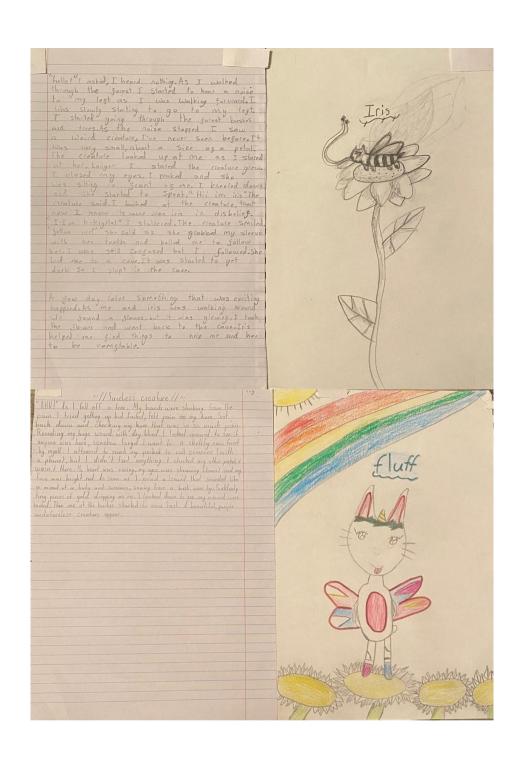






## School 3





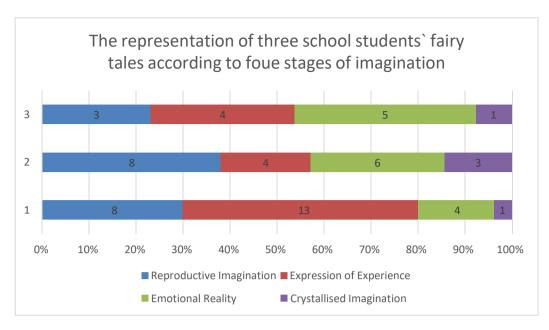


Figure 30. The Representation of three school students` fairy tales according to four stages of imagination

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