

Research on English Picture Books under the Theory of Multiple Intelligences

-- Taking *Twinkl* Picture Books as an Example

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Abstract

The theory of multiple intelligences is a concept first proposed by Prof. Howard Gardner, a developmental psychologist at Harvard University in the United States, in his book *The Structure of Intelligence* (1983). He believed that human intelligence is pluralistic, mainly consisting of linguistic, logical, visual, bodily intelligence, musical, interpersonal, intrapersonal, naturalist, and existentialist intelligence, and the theory has gained a great deal of attention and discussion since it was proposed. As a unique genre of children's literature, picture books utilize both language and painting to create a literary world, with vivid pictures and simple words, which enable children to fully mobilize their attention, observation, imagination, creativity, and thinking power in the process of reading. Therefore, picture books are of great value in enhancing children's reading ability. The thesis takes the 38-volume series of children's English enlightenment picture books published by Twinkl, a British educational website, as an example. The series of picture book stories contain interesting content, lovely images, colorful, in line with children's aesthetics, and very popular among parents and teachers at home and abroad. This thesis first defines the theory of multiple intelligences and picture books, then takes the Twinkl picture book as an example, and analyzes the nine intelligences embodied in the picture books. Finally, it briefly discusses the design strategy of children's picture book reading teaching under the theory of multiple intelligences.

Keywords

Multiple Intelligence; Picture Book; *Twinkl*; Reading; Teaching.

1. Introduction

1.1. Significance of the Study

Multiple Intelligences Theory was put forward by Howard Gardner, a professor of Harvard University in the United States, who believed that every person possesses nine major intelligences in different degrees. Picture books, as an important material for English learning, are highly valued in teaching and daily life, the rich colors and vivid pictures attract children and give them a wonderful visual impact to stimulate their interest in learning. As the largest educational resource website in the United Kingdom, *Twinkl* covers English teaching materials for all subjects from kindergarten to secondary school, and its *Twinkl* 38-volume Children's. Exploring how the colorful and interesting story contents of English picture books and their graphic-text combination reflect the MI theory and how to apply the MI theory in teaching not only improves children's reading level but also fully mobilizes students' motivation to learn, is of great significance. The study of English picture books and multiple intelligences provides insights into the cultivation and improvement of children's nine intelligences. In this way, we can fully cultivate children's learning ability, cultivate noble sentiments, develop unique personalities, and perfect the spiritual world.

1.2. Brief Introduction to the Theory of Multiple Intelligences and Picture Book

Multiple Intelligences was first systematically put forward by Dr. Howard Gardner, a famous contemporary American psychologist and educator, in his book *The Structure of Intelligence* in 1983, and has been continuously developed and improved since then. The term "intelligence" in this theory refers to a person's demonstrated ability to solve a problem or create a new product. "Intelligence" is the physiological and psychological potential unique to individuals, which is acquired through the construction of knowledge and culture by individuals. This potential is realized in certain practices under the influence of certain motives, experiences, and cultures. Howard Gardner tentatively breaks down the structure of human intelligence into the following nine intelligences: linguistic intelligence, logical intelligence, visual intelligence, bodily intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence, naturalist intelligence, existentialist intelligence, which are interconnected and independent of each other in a community.

The Concept of Children's Picture Books The concept of picture book originated in the 19th century in Western countries. Picture books can be simply understood as books with drawings and illustrations as the main constituent elements, which are mainly in the form of paintings, supplemented by textual explanations. The main audience group of children's picture books is preschool children, with young children before kindergarten and kindergarten-aged children as the main service object. Children's picture books are recognized as the most suitable reading material for children because of their immature cognitive ability and difficulty in understanding abstract reading objects. It fully mobilizes children's curiosity about the outside world and helps them cultivate correct reading habits, which is very suitable for children's cognitive development and the characteristics of reading and learning. Therefore, picture book reading is a way of reading for children that is highly valued by schools and parents at present.

2. Case Study of Picture Books based on Multiple Intelligences Theory

Based on Gardner's theory of the nine multiple intelligences, combined with the *Twinkl* series of picture books, we analyze the multiple intelligences embodied in the picture books, and appreciate the benefits of the combination of multiple intelligences and picture books on children's growth and development in an all-around interpretation.

2.1. Picture Book Reading under Linguistic and Logical Intelligence

Linguistic intelligence is both the ability to learn and use language, and sensitivity to the formal and semantic expression of language. It refers to the ability to listen to, speak, read, and write language, and is manifested in an individual's ability to utilize language smoothly and efficiently to describe events, express ideas, and communicate with others.

Take the *Twinkl* series *Back to Earth With a Bump* as an example. The text part of the book reads:
It's evening and Hal needs to go up to bed.

He brushes his teeth and he brushes his head.

The big hand's on twelve and the small hand's on eight.

Quick, into your bedroom - it's really quite late!

As can be seen from the above linguistic features, the *Twinkl* series of picture books express meaning through similar sentence structures and rhyming rhymes, and this kind of regular sentences of similar lengths not only enhance children's concentration, but also makes it easier for them to acquire English. Meanwhile, from the examples, we can learn that the words in picture books are mostly nouns and verbs, supplemented by a few simple adjectives. In terms of sentence patterns, they usually use simple and colloquial subject-verb sentences. Such word and sentence characteristics are very consistent with the language development pattern of children at this stage, which enables children in the period of language development to quickly

understand the meaning of picture books and master the words and sentence patterns in them through reading, thus gaining the development of linguistic intelligence.

In addition to the literal language learning in the picture books, the *Twinkl* series of picture books also tells one interesting and wonderful story after another through pictures, and the cause, development and ending of the story touches every nerve of the child readers. Canadian children's literature researcher Nordman said that picture books have three stories: the story provided by the words, the story provided by the drawings, and the third story provided by the words and drawings together. The subtle and concise drawings in picture books give readers unlimited space for imagination, and in the process of reading, they can also supplement and recreate the picture books according to their own wild imagination, in which the readers' imagination, thinking, observation, language expression ability, and appreciation level can all be improved.

Logical intelligence means the ability to perform operations and reasoning, which is manifested in the sensitivity to various relationships among things such as analogy, comparison, cause and effect, and logic, as well as the ability to think through mathematical operations and logical reasoning. It is a more obvious intellectual manifestation of rational and logical thinking.

Taking the *Twinkl* series *The Old Toy Room* as an example, this book tells the story of a girl Lottie who goes to her grandmom's house with her mother, Lottie quietly sneaks into her grandmother's toy room by herself and has a fantastic and lovely toy adventure. As soon as Lottie opens the door to the toy room, it's like she's entering an otherworldly world where all the toys can talk. This fantastical and straightforward plot makes readers think about the plausibility of the story and the consequences of the story. Children who are reading will be thinking, "*Is this real? Is Lottie still at Grandma's house? Is Lottie still at Grandma's house? Is she in danger?*" Reasoning such as this will continue to surface in the reader's mind, exercising the logical intelligence of the child reader.

2.2. Picture Book Reading under Naturalist and Visual Intelligence

Natural intelligence refers primarily to the ability to recognize animals, plants, and other parts of the natural environment, and is cognitive in nature. It refers to the ability to recognize the world and adapt to it, an ability to discern differences in the natural world. The existence of natural observational intelligence is the perception of the laws of this natural environment in which we find ourselves, such as history, the construction of the human body, the changes of the seasons, the establishment of directions, the existence of magnetic poles, the supernatural scientific ability to perceive the spiritual space, and the ability to adapt to the different environments in order to survive.

As an example, in the *Twinkl* series *Carrot Club*, in which the carrots have to hold a carrot party to sift through the other vegetables. The text part of the book reads:

Pedro Potato was told he was too mucky to come inside and Barbara Broccoli was shocked when the carrots said that her beautiful curly hair was not stylish Billy Beetroot was upset that her beautiful curly hair was not stylish enough:

Billy Beetroot was upset that the carrots thought his lovely pink color was not as funky as orange.

.....

Later Polly Parsnip, who looks similar to a carrot but is a different color, manages to get into the party by dyeing herself orange.

In this story, a variety of vegetables take part in the party, and through the screening criteria of the carrot party, readers can learn the names and characteristics of different vegetables, identify vegetables in the natural world, and develop the natural intelligence of child readers.

Visual intelligence is the ability to perceive, recognize, remember, and change the spatial relationships of objects, and to express one's thoughts and feelings through this. It is manifested

by sensitivity to lines, shapes, structures, colors, and spatial relationships and the ability to express them through flat figures and three-dimensional shapes. At the same time, mastery and understanding in the fields of the universe, space and time, dimensional space and direction is the embodiment of a higher level of intelligence.

Each book in the *Twinkl* series tells an intriguing story that creates an exciting world of imagination and knowledge about the universe. In *Back to Earth With a Bump*, the children in the picture book travel around the universe in their dreams and learn about the earth, the sun, the moon, and other related knowledge, which is very beneficial to children's spatial intelligence.

In addition, the simple and intuitive characters, large subject areas, simple backgrounds, and small number of drawings in the picture books enable children at a young age to quickly capture the information expressed in each page of the drawings. In the meantime, *Twinkl's* use of color is also very much in line with children's aesthetic interests, and it generally uses highly saturated, bright and visually striking colors, which can stimulate the development of children's visual system, and in turn promote the improvement of their spatial intelligence.

2.3. Picture Book Reading under Interpersonal and Intrapersonal Intelligence

Interpersonal intelligence is the ability to notice differences among other people, especially the ability to observe others' emotions, personalities, motivations, and intentions, which is the core ability of interpersonal intelligence. Interpersonal intelligence actually addresses the ability to effectively understand and relate to others, interpersonal skills, etc., and specifically includes four elements: organization, negotiation, analysis, and interpersonal connection.

In the *Twinkl* series *Saving Easter*, for example, the Easter Bunny is tasked with collecting and decorating Easter eggs, but this year is unable to get them because chickens are on vacation and there are no brushes for the paints, or even a way to distribute them. In this desperate situation, the forest animals come to his aid. Easter Bunny is initially worried about the animals' attempts at evil but chooses to trust them after a serious analysis. The animals do their jobs and work together to give the children a happy Easter egg hunt. The cooperation and trust between the Easter Bunny and all the other helping critters in this story highlight interpersonal intelligence and learning how these people get along with each other, that is, it develops interpersonal intelligence.

Intrapersonal intelligence means that a person's awareness of his or her inner world, the ability to understand his or her emotional life and emotional changes, and the ability to effectively discern these feelings, finally becomes the ability to understand oneself and guide one's code of conduct. The focus is on the relationship between the person and others and the self. Picture book stories show readers the reactions and actions of the protagonists when faced with different situations, allowing children to develop a strong sense of agency and identification, to grasp their own emotions, intentions, motivations, expectations, etc., and thus to generate their unique thoughts and behaviors and develop introspective intelligence.

Take the *Twinkl* series *Stop Telling Fibs* as an example, the boy Tomek always has all kinds of "accidents" when he is changing his clothes, maybe it is a skunk, maybe it is a goat, or maybe it is a kitten that hides in his clothes, and then the adults will tell him to "stop telling fibs!" But is it true that on the last page there are lots of little animals in Tomek's room? The last page of the story poses the question to child readers, asking them to think for themselves if it is true or not:

"There's a grizzly bear in my underwear!"

Could Tomek's tall tales actually be true?

Find out in this silly rhyming story.

By reading picture books, children can learn to reflect on their behavior, think about what is right, and subtly develop introspective intelligence.

2.4. Picture Book Reading under Musical, Bodily and Existentialist Intelligence

Musical intelligence refers to the ability to recognize, memorize, transform, and perform music, and is characterized by sensitivity to non-verbal sounds in the environment, including rhyme, tune, rhythm, pitch, and tone quality.

The *Twinkl* series is purely reading picture books, which involve less music, but there are still a lot of singing and musical episodes later in the books. For example, the *Starry-Eyed Stan* book depicts the story of a starfish with a beautiful singing voice, who eventually teaches the animals in the sea to sing together. The whole story is humorous and cute, which enhances readers' interest in music and develops musical intelligence.

Bodily intelligence refers to the skill of coordinating the body to perform a variety of actions as well as altering objects with the hands, as evidenced by the ability to have better control of one's body, the ability to utilize the limbs and trunk to express thoughts and feelings, and the ability to use the hands to dexterously produce or modify objects. Bodily intelligence can be seen as an epiphenomenal intelligence of picture book reading.

In the *Twinkl* booklet *The Making of Milton*, for example, Milton refuses to participate in all kinds of outdoor activities because he is afraid of getting hurt, but later an old man gives him a jar full of "braves", and he becomes willing to try, and in the end, he can participate in outdoor activities without a jar. The text part of the book reads:

He'd faced up to the neighbours' dog, he'd cycled down a hill.

Yet none of this had scared him - now it just gave him a thrill.

The enhancement of children's musical and motor intelligence through picture book reading should not be limited to teaching children a type of music or a sport, but more importantly to enable children to immerse themselves in the scenes and atmosphere depicted in the picture books, to respond appropriately to the daily events of life, and to use body language and non-verbal sounds to express their thoughts and feelings.

Existential Intelligence refers to a concern with philosophical issues such as the status of mankind concerning universal existence. In learning situations, the need to see 'the big picture' to understand minor learning points and details" (Palmberg 2011: 8).

In addition to the well-crafted stories in the *Twinkl* series, many stories give questions at the end of the story, pushing children to backtrack through the story after reading the entire book to get a grasp of the big picture.

3. Multiple Intelligences Theory of English Picture Book Teaching Design Strategies

The teaching of children's picture books based on the theory of Multiple Intelligences is in line with the current educational requirements of comprehensive development. Children's picture books, with their combination of graphics and visual images, are very suitable for early childhood and elementary school students to learn. In the process of teaching children's picture books, parents and teachers should pay attention to the development of children's multiple intelligences, so the following teaching strategies are proposed:

3.1. Combining Multiple Intelligences with Picture Book Learning

Picture books are suitable reading materials for children, and even if they can't read, children can be sensitive to the artistic information in picture books. Therefore, when designing each teaching link, the theory of multiple intelligences should be organically combined with the teaching of picture book reading, and the fit between the two should be carefully studied. Taking the cultivation of students' multiple intelligences as the main axis, we should carefully design diversified teaching activities and create situations corresponding to the development

of children's intelligence. It is believed that in the well-designed classroom or activities, children can not only master the learning content, but also utilize the existing knowledge to transfer and create, taking into account the training of children's intelligence, and then promote the overall development of children.

3.2. Diversifying the Choice of Picture Book Themes

The selection of children's picture book themes determines the subsequent development of the combination of multiple intelligences theory and children's picture book teaching. In order to promote the combination of the theory of multiple intelligences and children's picture book teaching, when choosing the theme of picture books, we should choose excellent children's picture books that promote different intelligences of children according to their age and interest.

For example, to develop children's "language" intelligence, we can choose language story-type picture books with catchy phrases and beautiful words as teaching contents. To develop children's "mathematical and logical" intelligence, you can choose some mathematical enlightenment picture books, to make children through a variety of senses, the formation of the initial concept of logic. To develop children's "spatial intelligence", picture books with rigorous layout can be chosen to promote the formation of children's initial concepts of shapes and sizes, and to enhance spatial thinking.

3.3. Implementing Effective Teaching Extension

The combination of multiple intelligences and picture books also requires parents or teachers to extend the teaching and learning process in order to deepen children's impressions and improve the integrity of the teaching and learning process. For example, children can read out loud from a picture book, retell the story after reading the book, go on an adventure or play sports in school with the book, or express their feelings about the story of the picture book, so as to strengthen children's linguistic, bodily, logical and intrapersonal intelligences. The children's intelligences are developed and strengthened in a continuous extension of teaching and learning.

4. Conclusion

Picture books, as suitable reading materials for children and teenagers, are organized in many ways that reflect multiple intelligences. The *Twinkl* series of picture books published by the British educational website embodies the theory of multiple intelligences in a large number of ways, and the reading of this picture book is very beneficial to the enhancement of children's multiple intelligences in various aspects. Picture books are gradually used in teaching. The study of children's picture books based on multiple intelligences theory is an important and meaningful work. Through in-depth research and analysis, we can better understand the needs and development of different types of intelligence in teaching and other aspects of picture books, so as to provide children with a more comprehensive and personalized learning experience, and promote the development of their comprehensive literacy. It is also important to develop reasonable teaching strategies that combine picture books with multiple intelligences to be more useful in the teaching field.

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