



# The Role of Picture Book Stories in Children's Construction Games and Suggestions on Application Strategies

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**Abstract.** Construction games based on picture stories can not only enhance children's interest in the game, but also better promote the development of children's abilities in various aspects. With the promotion of "gamification of curriculum" and "gamification of curriculum", the activity mode combining the two has been paid more and more attention. This paper studies the application status and existing problems of children's construction games, and on this basis, combined with literature, summarizes the role of integrating picture book stories into children's construction games, and finally analyzes these problems and puts forward strategies and suggestions for effectively integrating picture book stories into children's construction games.

**Keywords:** Picture book stories; Construct the game; Regional games; Gamification of curriculum

## 1 Introduction

According to the author's internship experience and observation and analysis of actual cases, it can be found that there is a relatively separate situation between regional games and class teaching in many kindergartens, which also affects children's state when playing regional games and their mastery of curriculum knowledge.

Fan Yabo et al. pointed out that "gamification of curriculum" and "gamification of curriculum" are the organic integration and innovative practice of kindergarten curriculum and game based on the concept of "taking games as basic activities"[1]. The combination of games and curriculum activities can not only bring great help to children's body and mind, but also increasingly receive the attention of kindergartens and teachers. So if you want to change the status quo, the first thing to do is to integrate picture story teaching into construction games.

This paper begins by analyzing the current situation and existing problems in the application of children's construction games, and further analyzes the role of picture books in the integration of construction games based on previous studies, aiming to put forward effective application suggestions and strategies, and provide theoretical and

practical help for strengthening the integration of picture book stories and construction games.

## **2 Present Situation and Existing Problems of Children's Constructional Play Application**

### **2.1 Lack of Cognitive Experience, Children's Construction Level Is Low**

The construction game needs to be applied to children's original life experience, and only on the basis of the original experience can children be able to carry out construction activities with ease. According to scholar Hua Aihua, she believes that children in kindergarten are in the transitional stage from the imaginary tectonic stage to the simulated tectonic stage to the free tectonic stage[2].

Her point of view shows that children's construction level develops gradually. If the construction theme provided by kindergartens is much higher than children's level, children will have difficulties such as unreasonable construction and unable to reproduce the spatial structure of real objects.

Case 1: When the child builds a house with stairs, the author observes that the child can clearly indicate that he wants to build stairs outside the house. But even though she knew the stairs were supposed to go up one by one, she couldn't get the blocks higher at first no matter how hard she tried. The stairs will collapse as soon as we reach the third floor. Later, the children attributed the reason why the stairs could not be built up to the fact that the distance of the building blocks at the bottom was not long enough on the plane, so it could not be built, but after trying to add two long boards next to it, they found that they still could not complete the upward shape of the stairs layer by layer.

### **2.2 The Concentration Is Too Low, the Construction Time Is Unreasonable**

According to relevant research conducted by Xu Xia, the concentration time of children is related to their age, and the concentration time of children aged 5 to 6 is 10 to 15 minutes[3]. Therefore, when children construct games, teachers must ensure that children can get the due time of play. Once there is insufficient construction time, it will lead to the end of the game before the child's concentration level reaches the highest. The game time is too long, it will make children gradually lose interest in the game to the later stage of the game, attention is distracted, and negative behaviors increase.

In the 15 constructional games observed by the author, it was found that the children immersed in the constructional games for a long time, only 3 activities could reach more than 20 minutes, accounting for only 20% of the standard.

### **2.3 Teacher Participation Is Weak and Intervention Evaluation Is Lacking**

Hua Aihua pointed out that the lack of teacher guidance will lead to the slow development of children's constructive ability, and may even lead to children's reluctance to continue playing[2]180. Due to the low level of teachers' participation in the region, children's problems cannot be solved in the first time, and the works cannot achieve the due effect.

In the interview with teachers, it can be found that although teachers pay attention to the guidance of children's play process, they are more inclined to pay attention to whether children can stay in an area until the end of the game and whether they can get along well with their peers.

Interview Content 1:

Q: Do you think teachers should intervene in the construction of children? What guidance can be given to young children?

T: Intervention is required. In the process of children's play, they have conflicts with their partners, or children ask questions on their own, or children need to give guidance when they are unwilling to play in the class.

Q: Do you think it's important to build order in games?

T: Important. Only in order can children play the game smoothly, which can reduce the conflicts between peers, immerse themselves in their own games, and correspondingly reduce the situation that children are not willing to leave their own activity area.

Therefore, sometimes children's problems are not noticed or well solved, and children's sense of game experience is not well satisfied. Just as Ji Ying summarized the problem, at present, children's construction games pay too much attention to the order of children's games, but the discipline and other routine content of children's games are not the focus of the guidance of construction games, and teachers should focus on the unique content of construction games[4].

### **2.4 Weak Parent-Child Interaction, Lack of Home Contact**

At present, in the construction game of kindergartens, Pan Yujie pointed out that the cooperation and interaction of homes can jointly promote the development of children's construction ability[5]. However, for parents, most parents hold the attitude that their children can be taught by kindergarten teachers, resulting in low parental participation.

Many construction experiences need children to learn from daily life, and it is not enough to rely only on the guidance of kindergarten teachers. Therefore, the lack of home connection will lead to children being unable to consciously guide to improve their existing construction experience in their daily life, resulting in poor construction effect.

### 3 The Role of Integrating Picture Book Stories into Children's Construction Games

#### 3.1 For Young Children to Construct the Plot of the Game Choice to Enrich the Theme Background

According to Beth M. Casey's research, story situations help improve children's ability of construction and other aspects[6]. Integrating story situations into construction activities can stimulate children's curiosity and make them actively find ways to construct and solve problems.

Therefore, the story of picture books can not only provide children with a simple and interesting story theme background, but also enrich children's construction experience and make them more interested in participating in the construction game. For example, Figure 1 "Hen Rose goes for a Walk" can provide children with pictures of different places where hens go for a walk and help children choose the direction of construction.



Fig. 1. The scene of the hen going out for a walk. Image Source: <https://www.limaogushi.com/huiben/399.html>

#### 3.2 Provide Graphic Scaffolding for Young Children to Construct the Implementation of Game Creation

Cheng Yanan pointed out that children's imagination will be limited by life experience, and picture books can broaden children's imagination and creation space through language expression and picture performance[7]. It can be seen that the provision of image support can enrich children's life experience, and at the same time, children's cognitive ability, creativity and imagination can be further developed along with the presentation and promotion of picture story content and pictures. For example, in Figure 2 "Jack the Architect", the house of the grandpa of the small monkey can indicate the style and position of the stairs to the children.

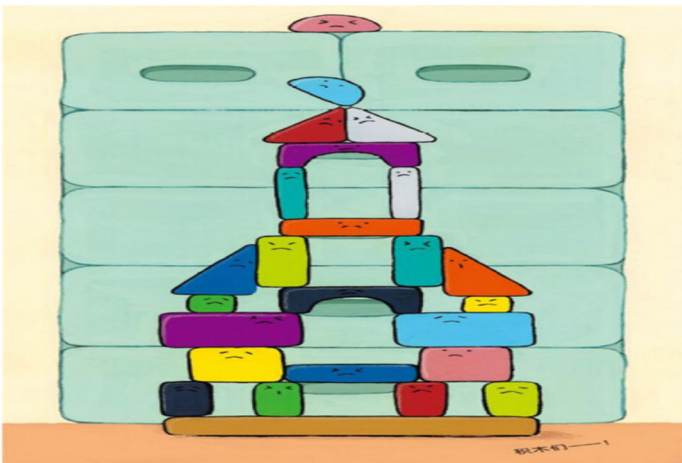


**Fig. 2.** Grandpa Monkey's house with stairs. Image Source: <https://www.limaogushi.com/huiben/462.html>

### 3.3 Provide Realistic Support for Children to Embody the Role of Constructing Games

#### 3.1.1 Promote the Development of Children's Spatial Structure Ability.

Mao Yimeng pointed out that in the construction of story situations, each element has a certain meaning, which can improve children's construction level and promote the development of children's spatial ability[8]. Moreover, Zhang Xiaoxia confirmed in her experimental research that compared with simulation construction, picture book reading can better improve children's spatial ability[9].



**Fig. 3.** Combination of various building blocks. Image Source: <https://dengtayuedu.com/bookdetail/936>

Therefore, a large number of pictures in picture books can enable children to have a clear cognition of the spatial structure of objects, and also improve their autonomy and flexibility in constructing games. For example, the shapes built by various building blocks in Figure 3 "Big Rescue of Building Blocks" can very well help children clarify the position of different building blocks in space.

**3.1.2 Promote the Development of Children's Creative Ability.**

In her research, Luo Qian found that construction games based on picture book stories can promote the development of children's creativity[10]. And Lu Ting pointed out that under the background of the story, when children face the content they like, they can effectively improve their enthusiasm[11]. Therefore, the integration of picture books can better trigger children's initiative to build games, which not only enriches children's emotions, but also makes children's construction games more interesting, and further promotes the cultivation of children's initiative in construction games.

**3.1.3 Promote the Development of Children's Ability to Construct Ideas.**

According to the findings of scholar Hensel et al., constructing games can not only cultivate children's reverse thinking ability, but also promote the development of children's abstract logical thinking ability[12]. This is because the formation of a construction game is not done overnight, so in the process of building the work, how to arrange the number and position of the blocks, as well as which part should be built first, all need children to think clearly, and children's logical thinking ability needs to be applied in this process. For example, the position relationship between the elevator built by the children and the house in Figure 4, if the order of construction is not considered clearly, the elevator will be higher than the house.



**Fig. 4.** Location of elevators and houses

## 4 The Strategies and Suggestions for the Effective Integration of Picture Stories into Children's Game Construction

### 4.1 Enhance Cognitive Experience, Rational Use of Scaffolds

#### 4.1.1 Provide a Construction Technique Diagram to Help Children Master the Construction Method.

Li Xiaoyan pointed out that the construction skill map in the construction area can be used for children to learn different construction skills, such as tiling, widening and raising[13]. Therefore, when children are building content, if they encounter difficulties, they can independently find the method they need to use in the skill diagram such as Figure 5. In this process, they can not only exercise their hands-on ability, but also better improve their observation and spatial ability.

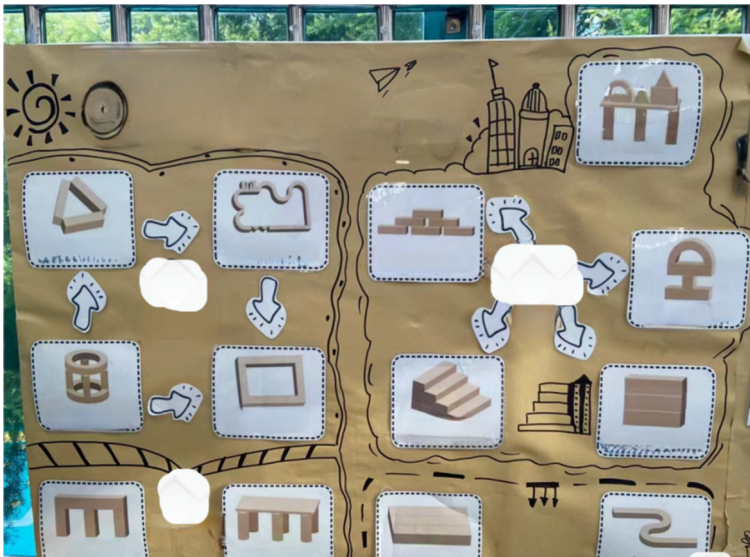


Fig. 5. Diagram of the construction technique. Image Source: <http://xhslink.com/6J1G2N>

#### 4.1.2 Provide Intuitive Perception Opportunities to Help Children form Constructive Ideas.

The picture book provides children with two-dimensional drawings, from which they can understand the plot and determine the architectural style they want to build. But it is more difficult for them to convert a two-dimensional plane into a three-dimensional building directly in their minds.

According to the contents of the Guidelines for Kindergarten Education (Trial), the environment is an important educational resource, and the development of children should be effectively promoted through the use of the environment[14]. Through the

observation and use of the external environment, it is helpful for children to understand the structure and size, as well as the reasons for the growth of these facilities, and the provision of these supports can make the construction of children more reasonable.

## 4.2 Increase Children's Play Time and Focus on Completing the Work

### 4.2.1 Make a Good Construction Plan in Advance and Grasp the Construction Rhythm.

According to the research conducted by Handline et al., as the complexity of children's works increases, more time is needed to build them[15]. Therefore, in the limited time for regional play activities, teachers need to master the rhythm of construction. They can help children make the planning of regional play for tomorrow in advance by making the selection schedule for each play area as shown in Figure 6, determine the children who will enter the construction area the next day, and guide them to choose the content to build according to the content of the picture book. This can reduce the time for children to come to the garden tomorrow to make choices.



Fig. 6. Select walls for each game area. Image Source: <http://xhslink.com/jzbK2N>

### 4.2.2 Reduce External Environment Interference, Teachers Moderate Reminding.

If at the end of the game, children can complete their own work in a short time, the teacher should not disturb them. At the same time, teachers should not make excessive urging. They can first play music to let children realize that the activity should be over. If children have been immersed in it, they should remind them to leave after they have completed a certain part of the construction, and do not interrupt their existing ideas.



### **4.3 Improve Teacher Participation to Solve Children's Dilemma**

Liang Weihua pointed out that teachers' timely and effective intervention and questioning in the process of construction can further encourage children to solve problems and promote the development of children's construction level at the same time[16]. By asking questions, teachers can help children create associations with the content of picture stories, and indirectly guide children to find solutions step by step.

At the same time, Xing Yuexin pointed out that teachers can use the strategy of role empathy to guide children to construct from the perspective of characters in picture stories[17]. And teachers should give appropriate encouragement to children in order to better promote the development of children's interest and construction ability. As scholar Han Chao points out according to Bandura's social learning theory, teachers should immediately reinforce children's positive behaviors[18].

### **4.4 Enhance Cognitive Experience, Rational Use of Scaffolds**

Jia Chenyun pointed out that the first thing to do is to raise awareness among parents, so that parents realize that the home-based co-parenting model can better promote the development of children's construction games based on picture books[19]. At the same time, Pan Yujie pointed out that teachers can introduce the scope of children's picture book learning to parents[5]169. Parents are allowed to know the content of the picture book that their children are currently learning in advance, and help them recall the content of the picture book story they want to build before the construction of the game, so as to reduce the time for teachers to help recall the next day before the game activity.

Deng Li also pointed out that teachers can combine online and offline methods[20]. Not only can parents come to the park to understand and feel, but also can let parents better understand the content of children's activities through wechat and other platforms, and jointly better promote the integration of picture book stories into the construction game.

## **5 Summary**

Allowing children to build construction games with picture book stories as the background can not only arouse children's interest in games, but also improve the development of children's cognitive, spatial and other abilities. The implementation of this game activity mode in kindergartens requires not only the active participation of children, but also the support and help of teachers. Teachers not only need to provide children with rich game materials, but also need to pay more attention to the improvement of children's cognition, the selection of themes, the determination of the length of play and how to reasonably participate in children's games, so as to better promote the development of children's various abilities.

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