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Dynamic Manifestations of Preschoolers' Attention in Constructive Play: A Case Study of Observation and Support Strategies

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Abstract: Attention is a crucial component of young children's learning dispositions. Constructive play is one of the most common activities in kindergarten daily routines and an important avenue for cultivating children's attention. This study selected one preschooler from a senior class in a kindergarten in G City as the observation subject. Using non-participant observation, the researcher transcribed the attention performance of the child Xiao Hua during constructive play using a self-adapted child observation record form, proposing targeted and instructive educational recommendations. The observation results indicate: The child exhibited good attention performance during constructive play; various dimensions within attention are interconnected; attention performance shows stage-specific characteristics. Factors influencing the child's attention performance can be summarized as: personal interest, task clarity, peer influence, and environmental noise level. Based on these findings, this study proposes the following educational recommendations: Provide an appropriate environment and diverse materials; Reduce intervention, focus on guidance; Establish reasonable game rules; Provide suitable duration for area play.

Keywords: Preschooler attention; Constructive play; Observation; Support strategies.

1. Introduction

1.1. Research Purpose and Significance

1.1.1. Research Purpose

Attention is a vital aspect of young children's learning dispositions. The senior kindergarten year is a critical period for the transition from kindergarten to primary school. Developing good attention skills significantly impacts future learning and life. Constructive play is a favored form of play among children and one of the most common area-based and self-directed play activities in kindergartens. The author chose to observe and understand the attention performance of an individual child in a senior class during constructive play. By comprehensively recording their performance and conducting multi-dimensional analysis, the aim is to provide a scientific and objective observational evaluation and propose universal and representative enhancement suggestions.

1.1.2. Research Significance

(1) Theoretical Significance

Current research in the fields of kindergarten constructive play and attention is relatively scarce. This study can enrich and supplement content in these related areas. Furthermore, this study diverges from common research approaches in existing studies. By focusing on observing a specific child, employing on-site individual observation and non-participant observation, and transcribing the child's attention state through descriptive ("white drawing") methods for multi-dimensional analysis, it can offer new research ideas and perspectives for subsequent related observational studies.

(2) Practical Significance

This study conducts a relatively comprehensive observation and analysis of a specific child and proposes targeted educational recommendations. This can help the child's teachers and parents find more effective strategies to enhance attention, further developing this skill. Additionally, the observed child is 5 years old. Based on the author's observation, her performance in various aspects is common and representative in the senior kindergarten stage. The conclusions drawn from this study also hold reference value for other children.

1.2. Relevant Domestic and International Research on Attention

1.2.1. Conceptual Definition of Preschooler Attention

Lin Chongde (2004) posits that in a state of concentration, consciousness is highly focused on the object of attention, and concentration possesses strong resistance to interference. That is, in a highly focused state, individuals ignore stimuli from other things[1]. G. Bondolf (2006) states that attention is an individual's capacity to contemplate facts, particularly the ability to recognize one's own habits, inclinations, and thoughts. It enables individuals to break free from fixed thinking patterns and maintain an open and diverse mindset[2]. Yan Chaoyun defines attention as the state where a child's psychology is fully directed and focused on play activities for a certain period. It is the quality through which children regulate their behavior and emotions to actively and earnestly engage in the process of achieving goals set by others or themselves[3][4]. Zhao Xing (2014) divides preschooler attention into dimensions such as thinking, accompanying language, resistance to interference, and attention dispersion[5].

1.2.2. Research on Factors Influencing Preschooler Attention

Dan Fei et al. (2020) point out that children exhibit better attention in cooperative games. This is because cooperative game situations provide opportunities for interaction and verbal expression, shared topics, and game tasks, which can enhance children's resistance to interference and reduce attention-dispersing behaviors[6]. They explicitly incorporate "social interaction" as an influencing factor of preschooler attention. Furthermore, Wei Hongyu (2018) suggests that the

structure and presentation methods of materials in constructive play also significantly impact the attention of middle-class children. For instance, in the context of low-structured provision, young children exhibit more thinking activities, attention dispersion, and accompanying verbal behaviors than in high-structured provision[7]. This quantifies environmental variables and explores their relationship with attention. Children of different temperament types also show distinct attention characteristics. Differing from previous scholars, some researchers focus not on external environmental influences but on the role of children's internal individual traits. For example, Jennifer L. Tackett (2013) indicates in her research that choleric children find it difficult to concentrate on current activities and are easily distracted by external stimuli, leading to attention dispersion. In contrast, phlegmatic children can maintain stable and prolonged interest in activities[8]. He Hanjiao (2018) found that the attention levels of children with different temperament types, from low to high, are: active type, balanced type, inhibited type, focused type, and agile type children[9].

1.2.3. Research on Strategies for Enhancing Preschooler Attention

Regarding strategies for cultivating preschooler attention, numerous studies propose suggestions from different angles. Zhou Liping (2018) suggests that cultivating children's attention in constructive play requires efforts from environmental, material, and teacher guidance aspects[10]. This study links strategies to specific game types, avoiding generalization of cultivation methods. Kang Lijun (2018) believes that enhancing children's attention in reading activities necessitates creating a suitable reading environment, deepening early childhood educators' and parents' understanding of attention, reducing interference from irrelevant stimuli, and establishing reading rules jointly by teachers and children[11]. Wang L. et al. (2019) point out that in reading activities, highly interactive books might negatively affect children's attention[12]. These studies primarily address enhancing preschooler attention in the static context of reading activities. Xiao Xiaojun (2023) indicates that there is a significant overall negative correlation between family noise levels and the attention of senior class children[13]. This compensates for the previous focus mostly on the kindergarten environment, providing a new perspective for exploring strategies to enhance preschooler attention.

1.2.4. Review of Existing Research

Reviewing domestic and international literature reveals that in recent years, academia has placed increasing importance on attention development. This trend is reflected in policy documents of various countries and in the deepening awareness among educators of the critical role of attention in individual learning and development. They increasingly recognize the key role of attention and explore effective methods for cultivating preschooler attention through diverse approaches.

Regarding research subjects, searching the China National Knowledge Infrastructure (CNKI) with "attention" (专注力) as the keyword and conducting a visual analysis of all results shows that scholars focus more on elementary education (ages 6-12) than preschool education. This indicates that the academic field of preschooler attention urgently needs enrichment and expansion. Furthermore, within the preschool stage, scholars concentrate more on the senior kindergarten class. The author believes that the senior kindergarten year is a critical stage for the transition to primary school, making the discussion of attention enhancement strategies highly relevant and practical.

Regarding research content, existing studies tend to discuss attention as part of learning dispositions rather than focusing on attention specifically. In research related to preschooler attention, most scholars prefer to explore attention performance and enhancement strategies in different subject areas or different play activities, with constructive play rarely involved.

Regarding research methods, most scholars choose observation methods, interviews, and questionnaires targeting groups of children, often with short observation durations and few days. Additionally, some frontline teachers can conduct detailed observations based on their daily interactions, providing specific behavioral descriptions of children. However, they often lack scientific observation indicators and methods, making the observational data difficult to use for assessing children's true attention levels.

Therefore, this study adopts an observational method, conducting a five-day observation and detailed recording of a specific child's play in the construction area. Using a scientific observation record form, the child's behaviors are classified, coded, and recorded to comprehensively understand the child's attention level and propose targeted enhancement strategies. Simultaneously, the findings hold certain reference value and applicability for other children, providing effective suggestions for teachers and parents to better cultivate children's attention.

2. Research Method - Observation Method

2.1. Observation Purpose

To observe the attention performance of one 5-year-old child in Senior Class 3 during constructive play, understand their attention development level and influencing factors, analyze these aspects, and propose educational recommendations.

2.2. Observation Content

Observe the attention performance of one specific 5-year-old child in Senior Class 3 during constructive play. Observe the location, situation, age, gender, and behaviors of the specific child during constructive play. Referring to Zhao Xing's interpretation and division of attention performance, behavioral observation items include: Thinking, Accompanying Language, Resistance to Interference, Attention Dispersion, etc. Specific behavioral codes and operational definitions are as follows:

Table 1. Observation Items

No.	Observation Item	Target Behavior
1	Thinking	(1) Observational Attention: The child uses eyes to observe objects, abstracts concrete objects into the mind, thinking about the next step. (2) Operating Materials: The child selects suitable construction materials and manipulates them to build desired objects. (3) Comparing and Adjusting: The child makes timely adjustments and improvements when encountering problems during building.
2	Accompanying Language	(1) Private Speech: The child talks to themselves during the building process. (2) External Language: The child conveys thoughts and feelings through language for peer collaboration during building. (3) Active Seeking Help: The child actively seeks help from peers or teachers when encountering problems they cannot solve during building.
3	Resistance to Interference	(1) Peer Interference: The child is interfered with by peers during building. (2) Other Interference: The child is interfered with by environmental factors during building.
4	Attention Dispersion	(1) Distraction/Daydreaming: The child stares blankly during building. (2) Attention Shift: The child's attention, originally focused on the ongoing game, is diverted by the appearance of a distractor. (3) Area Change: The child loses interest in the ongoing game and moves to a different play area.

2.3. Observation Duration and Location

Duration: Five days

Location: Senior Class of a kindergarten in G City

2.4. Observation Subject

One senior class child, aged 5 (Xiao Hua)

2.5. Observation Method and Procedure

Observation Methods:

Time Sampling Method: Predetermine observation during the first 15 minutes of each constructive play session. Observe for 15 seconds, record for 5 seconds, conduct continuous observation, and record the frequency of relevant behavioral indicators.

Tracking Observation Method: Select one specific child, observe them during constructive play scenarios to understand their attention development level during this activity.

Observation period: Total of 5 days. Day 1: Casual observation to familiarize with the environment, determine the subject, and refine the plan. Days 2-5: Formal observation for four consecutive days.

Observation Tools:

Time Sampling Observation Record Form (using Yang Lizhu's (2002) time sampling coding method, coding preschooler attention performance (1-4), representing Thinking, Accompanying Language, Resistance to Interference, Attention Dispersion respectively, observing and recording the frequency of attention performance within unit time.), Paper, Pen, Timer, Mobile Phone (for photos).

Recording Methods:

Symbol Recording Method, Audio-Visual Recording Method.

3. Research Results

3.1. Observation Records

(1) Observation Record 1 (Day 1):

Figure 1. Observation Record (Day 1)

Table 1. Time Sampling Observation Record Form (1)
Observation Time: 2025.6.5 Observation Location: Senior Class Indoor Large Construction Area Observation Subject: Xiao Hua (Female)

Observation Interval (s) / Minute	0-20	20-40	40-60
1	4	4	1,2
2	3,4	4	1,2
3	1	1,2	1
4	3	1	1,2
5	1,2	1	1
6	1,2	1	1,2
7	1,2	1	1
8	1,2	3,4	1,2
9	4	1	1,2
10	1,3	4	1,2
11	4	1,2	3
12	4	4	1
13	1,2	3	4
14	4	4	1
15	3,4	4	4

Note: 1. Codes 1-4 represent Thinking behavior, Accompanying Language behavior, Resistance to Interference behavior, Attention Dispersion behavior respectively. 2. If the child changes areas or ends the game during play, do not intervene; mark it in the time period.

(2) Observation Record 2 (Day 2):

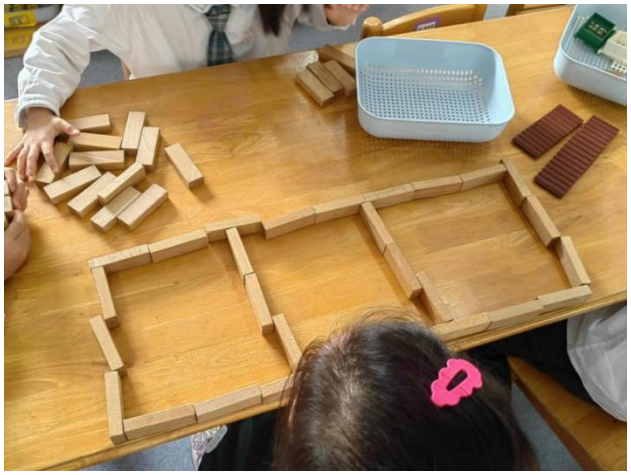

Figure 2. Observation Record (Day 2)

Table 2. Time Sampling Observation Record Form (2)

Observation Time: 2025.6.6 Observation Location: Senior Class Group Small Construction Area Observation Subject: Xiao Hua (Female)

Observation Interval (s) / Minute	0-20	20-40	40-60	
1		1,2	1,2	4
2		1,2	1,2	1
3		3	1	1
4		1	1	1
5		1	1	2
6		1	1	1
7		1	1,2	1
8		1	1,2	1
9		1,2	1	1
10		1	3	4
11		1	1	3
12		1	3,4	4
13		1	1	3
14		4	1	1
15		3	4	3,4

Note: 1. Codes 1-4 represent Thinking behavior, Accompanying Language behavior, Resistance to Interference behavior, Attention Dispersion behavior respectively. 2. If the child changes areas or ends the game during play, do not intervene; mark it in the time period.

(3) Observation Record 3 (Day 3):

Figure 3. Observation Record (Day 3)

Table 3. Time Sampling Observation Record Form (3)
Observation Time: 2025.6.7 Observation Location: Large Group Small Construction Area Observation Subject: Xiao Hua (Female)

Observation Interval (s) / Minute	0-20	20-40	40-60	
1		1,2	3	4
2		4	1	1
3		1,2	1,2	1
4		3	4	1
5		3	4	1
6		1	1	1
7		1	1	1
8		1,2	3	4
9		4	3	4
10		2	2	3
11		3	4	1
12		1	1,2	2
13		3	3	4
14		1	1	3
15		1	4	3,4

Note: 1. Codes 1-4 represent Thinking behavior, Accompanying Language behavior, Resistance to Interference behavior, Attention Dispersion behavior respectively. 2. If the child changes areas or ends the game during play, do not intervene; mark it in the time period.

(4) Observation Record 4 (Day 4):

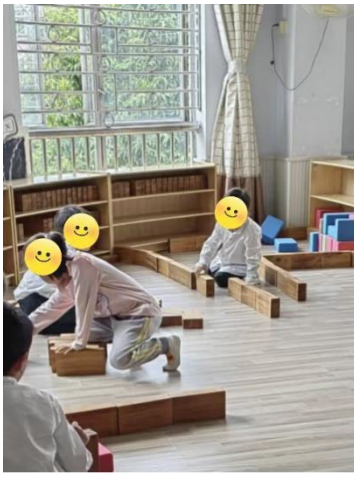

Figure 4. Observation Record (Day 4)

Table 4. Time Sampling Observation Record Form (4)

Observation Time: 2025.6.8 Observation Location: Senior Class Indoor Large Construction Area Observation Subject: Xiao Hua (Female)

Observation Interval (s) / Minute	0-20	20-40	40-60	
1		1	1,2	1
2		1,3	4	1,2
3		1,3	1	1
4		1,3	1,2	1,3
5		4	1,2	1,2
6		1,2	1	1,2
7		1,2	1	1,3
8		1,2	3,4	4
9		4	1	1,2
10		1,3	1	1,2
11		1	1,2,3	1,3
12		4	4,1	1
13		1,2	3	4
14		4	4	1
15		1,3	4	3,4

Note: 1. Codes 1-4 represent Thinking behavior, Accompanying Language behavior, Resistance to Interference behavior, Attention Dispersion behavior respectively. 2. If the child changes areas or ends the game during play, do not intervene; mark it in the time period.

(5) Observational Evaluation

Xiao Hua's attention was relatively focused during constructive play over these days. She showed great interest in constructive play. Every time the teacher announced the start of play, she would run to the construction area decisively and excitedly.

At the beginning of the game, Xiao Hua was not fully engaged. She was often easily distracted by peers around her, but she was always able to quickly readjust and focus on the game.

Xiao Hua often liked to talk to herself during the construction process, sometimes sharing her ideas with peers and me. Each time she played, she had a relatively clear construction task and could describe the details of what she wanted to build quite clearly. I think this might also be why she was able to maintain a relatively high level of attention during the middle stage of the game. When playing alone, Xiao Hua's attention was usually higher than during teamwork. When disturbed, Xiao Hua was able to maintain focus or only experience brief attention dispersion. Surrounding children usually disturbed Xiao Hua due to reasons such as insufficient materials, walking past, chatting, or roughhousing. Xiao Hua sometimes collaborated with peers, but during peer collaboration, she was easily distracted by the attention-dispersing behaviors of peers around her. However, during the four days of observation, Xiao Hua never actively disturbed others, indicating she possesses a certain degree of self-control.

Towards the end of the game, children in the class gradually became restless, the environment became noisy and disordered, and Xiao Hua was also affected, leading to frequent occurrences of attention-dispersing behaviors.

3.2. Data Statistics

Table 5. Frequency Statistics of Child's Attention Performance

Behavior Code	Frequency (times)
1	111
2	43
3	37
4	46

4. Discussion

During these days of constructive play, Xiao Hua exhibited Thinking behavior 111 times; Attention Dispersion behavior 46 times; Accompanying Language behavior 43 times; Resistance to Interference behavior 37 times. Among these, Thinking behavior and Accompanying Language behavior often occurred together, and Resistance to Interference behavior and Attention Dispersion behavior also often occurred together. Xiao Hua actively dispersed her attention only 6 times. Attention Dispersion behavior occurred passively after Resistance to Interference behavior 25 times. Xiao Hua maintained focus despite interference 7 times. Statistics show that Xiao Hua's Attention Dispersion behavior was mostly concentrated in the first 2 minutes (initial stage) and around the 12th minute (final stage) of each play session, while attentive behaviors were mostly concentrated in the middle stage of the game.

Based on this observation record, Xiao Hua's attention performance in constructive play shows distinct stage characteristics and behavioral interconnections. First, Thinking behavior occurred 111 times, far exceeding Attention Dispersion (46 times), Accompanying Language (43 times), and Resistance to Interference (37 times). This indicates that Xiao Hua was generally in an active thinking state during constructive play, showing high engagement with the game task. The co-occurrence of Thinking and Accompanying Language suggests she might be externalizing her thought process through private speech, a typical manifestation of a child focused on a task. Second, the co-occurrence of Resistance to Interference and Attention Dispersion, along with 25 instances of Attention Dispersion occurring "passively after resisting interference," indicates that Xiao Hua does not entirely lack the ability to resist interference. Rather, after actively resisting interference, her attention might wane due to energy depletion. The 7 instances of "maintaining focus despite interference" demonstrate her potential for attention regulation. Notably, active attention dispersion occurred only 6 times, suggesting her attention dispersion was mostly triggered by external interference or reaching her own regulation limits, rather than a subjective abandonment of the game task. Finally, attention dispersion concentrated in the first 2 minutes (initial stage) and around the 12th minute (final stage) of the game, with attentive behaviors dominating the middle stage. This aligns with the natural fluctuation pattern of children's attention. In the initial stage, attention might briefly wander due to unclear goals; towards the end, attention might disperse due to fatigue or waning interest. This suggests that teachers can help children enter the state quickly by clarifying task goals at the beginning of the game and extend the attention span by increasing game challenges around the 10-minute mark.

Based on the observational evaluation, Xiao Hua's attention was relatively focused during constructive play. Most attention-dispersing behaviors were due to passive influence from peers, but she could adjust quickly. This is attributed to her strong interest in constructive play and relatively clear task objectives. However, during the beginning and end stages of the game, the noisy classroom environment significantly affected her attention.

Overall, Xiao Hua exhibited a medium-to-high level of attention during constructive play, showing stable engagement alongside susceptibility to interference-induced fluctuations. Her behavioral patterns provide specific references for targeted enhancement strategies.

5. Conclusions and Recommendations

5.1. Research Conclusions

This study employed non-participant observation to observe and record the attention performance of a specific child during constructive play. Quantitative analysis of the child's attention performance was conducted using the time sampling method, yielding the following conclusions:

The child exhibited good attention performance during constructive play, with Thinking behavior occurring significantly more frequently than other dimensions.

Various dimensions of the target child's attention are interconnected, manifested as: Thinking behavior and Accompanying Language behavior often co-occur; Resistance to Interference behavior and Attention Dispersion behavior often co-occur.

The target child's attention performance shows stage-specific characteristics, manifested as: Attention Dispersion behavior is concentrated in the initial and final stages of the game; attentive behaviors are concentrated in the middle stage of the game.

Factors influencing the target child's attention performance can be summarized as: personal interest, task clarity, peer influence, and environmental noise level.

5.2. Educational Recommendations

Based on the observation records and relevant research, this study compiles the following educational recommendations for supporting attention development in senior class children during constructive play:

Provide an appropriate environment and diverse materials. First, teachers should select a relatively large and spacious area to set up the construction zone. Shao Aihong (2016) proposed that the per capita area of a class construction zone

should be approximately 2 square meters[14]. Limited space restricts children's physical movements. Since senior class children's constructions generally occupy a large area, significant movements can easily knock down their structures, leading to disputes among peers. Additionally, teachers can play suitable soft music during play to help create a comfortable environment. Meanwhile, teachers should increase the quantity of materials in the construction area based on the actual needs of the class, providing a variety of construction materials. The placement of materials should be convenient for children to access and organize. Insufficient materials in the construction area may cause other children to disrupt a child who is focusing due to a lack of materials or space, which is detrimental to the development of attention. Therefore, teachers and kindergartens should pay attention to the toys and materials that children are interested in and consider appropriately increasing their quantity and providing more activity space.

Reduce intervention and focus on guidance. Teachers should act as supporters rather than commanders of children's play activities. During play, teachers should observe carefully. When children are aimless or encounter difficulties, teachers should use open-ended questions to guide and assist them—for example, "Do you want to build a house that can 'walk'?" or "If your blocks keep collapsing, would you like to try placing the largest block at the bottom?" Teachers should respect and accept children's "trial and error" and "imperfections," encouraging them to take bold attempts. They may also appropriately expand the evaluation session after play, encouraging children to share and introduce their works, and provide encouraging feedback.

Establish reasonable game rules. Teachers should emphasize prohibiting intentional disruption of others' activities during play, such as making loud noises or snatching toys, to control the noise level in the classroom, maintain good play order, and educate children in advance on the correct ways to resolve related issues. If rule violations occur during play, teachers should intervene and provide education promptly.

Teachers can provide appropriate duration for area-based play. Zhang Ying et al. (2009) noted that the reasonable duration for a single block game in the senior class should be no less than 20 minutes; for children who are particularly fond of block games, teachers should provide 30 minutes or longer[15]. During the observation period, the daily area-based activity time for children was only 15–20 minutes per session. As an important learning quality, attention is characterized by continuity and sustainability. Insufficient time in area-based activities will inevitably affect the development of children's attention.

References

[1] Lin C D. Dictionary of Psychology [M]. Shanghai: Shanghai Education Press, 2004.

[2] Bondolfi G, Aubry J M, Golaz J, et al. A stepwise drug treatment algorithm to obtain complete remission in depression: a Geneva study. [J]. Swiss Medical Weekly, 2006, 136(5-6):78-85.

[3] Yan C Y. Preschool Education Evaluation [M]. Beijing: Higher Education Press, 2010:97.

[4] Yan C Y, Wei T. Interpretation of Approaches to Learning in the *Guidelines for the Learning and Development of Children Aged 3-6* [J]. Early Childhood Education: Educational Science, 2013, 586(6):1-5.

[5] Zhao X. Performance Assessment of Approaches to Learning in Block Activities of Kindergarten Class Children [D]. Kaifeng: Henan University, 2014.

[6] Dan F, Li X Y, Jia W H. Observational Study on Preschoolers' Attention Span Performance in Solitary and Cooperative Block Play [J]. Early Childhood Education (Educational Science), 2020(10):9-13, 24.

[7] Wei H Y. Research on the Influence of Material Structure and Presentation Methods on the Attention Span of Middle Class Preschoolers [D]. Hebei Normal University, 2018.

[8] Tackett, J. L., Kushner, S. K., De Fruyt, F., & Mervielde, I. (2013). Delineating personality traits in childhood and adolescence: Associations across measures, temperament, and behavioral problems. Assessment, 20, 738-751.

[9] He H J. Study on the Characteristics of Attention Span Performance in Preschoolers with Different Temperament Types [D]. Shaanxi Normal University, 2018.

[10] Zhou L P. Cultivating Preschoolers' Attention Span in Block Play [J]. Curriculum Education Research, 2018, (15):249-250.

[11] Kang L J. Research on Preschoolers' Attention Span in Early Reading Activities [D]. Northwest Normal University, 2018.

[12] Wang L, Lee H, Ju Y D. Impact of digital content on young children's reading interest and concentration for books[J]. Behaviour & Information Technology, 2019, 38(1):1-8. DOI:10.1080/0144929X.2018.1510487

[13] Xiao X J. The Relationship between Household Noise Level and Attention Span of Kindergarten Class Children: The Mediating Role of Children's Sense of Order [D]. Southwest University, 2023. DOI:10.27684/d.cnki.gxndx.2023.000208.

[14] Shao A H. Guidance for Block Play Inside and Outside the Kindergarten [M]. Beijing: China Light Industry Press, 2016.

[15] Zhang Y, Zhang A H. The Influence of Play Duration on Children's Block Play Behavior and Constructions [J]. Studies in Preschool Education, 2009(02):36-43.