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From "Recreational Items" to "Educational Tools": Development and Application of Homemade Toys for Rural Preschool Children

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Abstract: *Against the backdrop of advancing rural revitalization and the high-quality development of preschool education in rural areas, rural children face practical challenges such as scarce toy resources, inadequate toy adaptability, and unmet educational needs. Homemade toys offer advantages like easily accessible materials, low costs, and alignment with rural lifestyles, making them an effective solution to bridge this gap. However, rural parents generally perceive them as mere "tools for entertaining children," overlooking their educational value, and often exhibit issues such as haphazard production, simplistic play methods, and insufficient home-school collaboration. Through literature review, a four-dimensional strategy is proposed: "Shifting Parental Perspectives—Enhancing Parent-Child Interaction—Strengthening Home-School Collaboration—Improving External Support." By clarifying rural resource categories and adhering to principles like educational value, scientific rigor, and engagement, toys are designed with developmental levels in mind. The educational value is further enriched by integrating rural life scenarios, heuristic parent-child interactions, and diverse application scenarios. This approach effectively taps into the educational potential of homemade toys in rural households, fostering children's cognitive, motor, and cultural identity development while providing practical pathways for preschool education resource development in rural areas and laying the foundation for cultivating early-stage talent in rural revitalization.*

Keywords: *rural preschool children; homemade toys; preschool education; home-school collaboration*

1. Introduction

The strategy of rural revitalization is gradually deepening, and rural preschool education must also keep up with high-quality development, which is the key starting point for cultivating rural talents [1]. Toys are the material basis for children's games and the 'first textbook' for children to explore the world. Wang Shaohua clearly pointed out in his research on kindergarten toy design based on children's cognitive development that 'high-quality toys can provide children with opportunities for active exploration, help them construct experiences and develop abilities through interaction with materials, and are an indispensable educational carrier in the process of preschool education' [13]. In rural areas, due to uneven economic development and unequal distribution of educational resources, there is a shortage of toy resources for young children, and the prices of finished toys on the market are relatively high; At the same time, the types of finished toys are relatively single, which is significantly disconnected from rural life and difficult to meet the diverse gaming needs and personalized growth and development needs of young children. In this situation, homemade toys have played a significant role in filling the gap in rural toy resources. At the same time, based on the practical experience of kindergarten teachers, Teacher Li Xuelan explored the application value of homemade toys in kindergarten education. The production process of homemade toys itself is a learning experience that can effectively promote the comprehensive development of children invisibly. It can also enhance the interaction between parents and children, and promote the harmonious development of parent-child relationships. For many years, rural parents have only regarded homemade toys as "toys" to coax children, without realizing that they can also teach children knowledge and practice their skills, ignoring their "educational" value in cultivating children's cognition, hands-on ability, and social emotions. This leads to arbitrary methods and single gameplay of homemade toys, making their educational value ineffective.

The concept of preschool education is constantly evolving, and transforming homemade toys from "just for children to play" to "teaching children to grow" has become an inevitable trend in the development of rural preschool education. Teacher Qiu Jiahong conducted research on the impact of

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homemade toy activities on early childhood education from the aspects of cognition, socialization, creativity, problem-solving ability, and environmental awareness cultivation, and proposed practical strategies aimed at improving the educational value of homemade toy activities and promoting the all-round development of young children [2]. The research is based on the actual situation of rural families, closely following the transformation core of homemade toys from toys to education, adding new knowledge to the theory of rural preschool education resource development, and providing relevant guidance to rural parents, enabling kindergartens and families to work together to improve rural preschool education and lay a solid talent foundation for rural revitalization.

2. Types of resources available for homemade toys in rural households

Although rural areas are relatively scarce in commercial toy resources, there are a wide variety of local resources available for making toys, which are both economical and educational. They can be mainly divided into four categories: natural, waste, agricultural production, and daily life.

2.1 Natural resources

The local resources of homemade toys in rural areas are divided into four categories, among which natural resources are the easiest source of materials to obtain, with characteristics such as wide distribution, zero cost, and distinct seasonal characteristics. It build simple shapes to help children understand the form and texture of natural objects. Meanwhile, Wang Zhenqin also analyzed four common materials in daily life; He proposed development strategies for four types of materials and focused on exploring how to effectively utilize waste materials in the art area activities of kindergartens for the development of homemade toys [3].

2.2 Waste materials

This type of material comes from daily household life, with extremely low cost and reusability, and is one of the core materials for homemade toys. It has a wide range of sources, easy collection, diverse textures, low processing difficulty, and is suitable for young children to participate in production. It can not only stimulate children's imagination and creativity, but also cultivate their awareness of environmental protection and conservation.

2.3 Agricultural production materials

This material is a "by-product" of rural agricultural production, with a strong local flavor. In this regard, Du Xinyi outlined the material selection, design process, and educational significance of homemade toys, and discussed the positive impact of homemade toy activities in kindergartens on the development of children's creativity [4]. It can weave small baskets, make bamboo dragonflies, build scarecrows, and assemble simple agricultural tool models, allowing children to understand agricultural production tools and crop characteristics, and experience agricultural culture.

2.4 Living materials

Life materials are familiar items for young children in their daily lives, with low operational difficulty, which can quickly establish their interest and sense of achievement in making. Children have a high awareness of it, feel more secure when operating it, and it is often a lightweight and easy to assemble small object. It can be used to make handmade accessories, character game props, bead toys, etc., which can not only exercise children's fine movements, but also help them sort out the purpose and characteristics of daily items.

3. The development value of homemade toys in rural households

The development of homemade toys for rural preschoolers relies on abundant natural, waste, agricultural production, and living materials. It not only compensates for the fixed types of commercial toys in rural areas, but also realizes educational value in the process of production and play. Kong Dezhen also believes that homemade toys can not only stimulate children's interest, but also cultivate their hands-on ability, observation ability, thinking ability and other abilities [5]. Liang Jie believes that toys are the main carrier of children's games. The researcher selected Xi'an Fengzhen Central Kindergarten in

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Baoying County, Yangzhou City as the research object, with the characteristic of "environmental protection". Over the years, they have explored the impact of the self-made toy model involving teachers, children, and parents on children's intellectual development [6]. Co-production of toys by parents and children, with division of labor and communication between parents and children, can not only enhance emotions, but also enable parents to more accurately grasp children's interests and developmental needs, and better create a harmonious family atmosphere. Models of agricultural tools and toys such as scarecrows made from materials unique to rural areas, such as rice straw and bamboo strips, can help children learn and familiarize themselves with agricultural culture and traditional customs while playing, and inherit local culture. Using waste materials to make children's toys is not only an innovative teaching method, but also an effective way to cultivate children's environmental awareness and sense of responsibility. Children can intuitively feel the reuse value of waste and learn how to transform seemingly useless items in daily life into fun and educational toys. Adopting this teaching strategy can not only reduce the generation of waste, but also help young children establish correct environmental awareness [7].

4. Development strategy of homemade toys for rural children's families

There are various types of local resources available for the development of homemade toys in rural areas, and the forms of toys that can be made are also diverse. Chen Caihong proposed that the development and transformation of game materials can follow the principles of fun, safety, and educational collaborative interaction. Based on the cultivation requirements of children's expression, creativity, and comprehensive learning ability, traditional game materials can be flexibly and ingeniously developed and transformed to enhance their feasibility, flexibility, and interactivity [14].

4.1 Accurately screen resources to meet production and play needs

The selection of resources should strictly adhere to the principle of prioritizing safety, which is highly consistent with the requirements of the "Safety Standards for Preschool Toys" (GB 6675-2015) that "toy materials must not contain toxic and harmful substances, must not have sharp edges and corners, and must not have small parts that are easily ingested by young children". In terms of material selection, priority should be given to easily obtainable and processed materials such as straw, corn cobs, cardboard boxes, bottle caps, etc., without the need for complex production tools, effectively reducing the difficulty of production for parents. Toy making should fully combine the interests and hobbies of young children. Yang Tianzuo believes that homemade toys are more suitable for children's gaming situations. In the process of making toys, children's various abilities can be exercised and improved, which is conducive to promoting the healthy development of children's gaming [7].

4.2 Adhere to development principles, balancing education and fun

Toy development should deeply integrate rural characteristic elements, which is the core advantage that distinguishes homemade toys in rural areas from urban toys. Homemade toys in rural areas should become the 'carrier' of agricultural culture. By using local materials such as rice straw, bamboo strips, and corn husks, toys with agricultural characteristics can be made, allowing children to perceive local culture while playing. The same material can be used to design toys of different difficulty levels, achieving 'multi-purpose' and maximizing material utilization. Pay attention to the disassemblability and composability of toys, and extend the service life of toys.

Secondly, toy design should have rich layers. In the process of making homemade toys, it is necessary to consider the ability levels of different children in order to create and distribute toys at multiple levels. When playing frisbee in outdoor games, it is a test of hand movements and overall coordination ability. It is necessary to consider the level of children's abilities and provide toys with multiple dimensions of abilities. For children whose overall movements are not coordinated and their hand control is not in place, a frisbee made by stacking multiple plastic pieces can be provided. Its texture is the hardest, the size is the largest, the difficulty of flying out is low, and the fault tolerance is high, which is very suitable for beginners to play with; For young children with certain hand control abilities but not precise enough, a single plastic disc frisbee can be made to reduce weight and increase difficulty while maintaining its shape [8].

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4.3 Design toys according to the age group of young children and adapt them to their developmental level

Toys should be designed based on the age characteristics and developmental level of young children, which is consistent with the requirement of "respecting individual differences in children's development and providing educational resources suitable for different age groups" in the "Guidelines for Learning and Development of Children Aged 3-6". Divide homemade toys into three age gradients: for children aged 1-3, emphasis should be placed on developing soft and large particle toys, mainly to exercise children's grasping ability, crawling ability, and material perception ability; 3-5 year old children can develop toys with stronger operability, with a focus on developing their fine motor skills and hand eye coordination abilities. Homemade toys for this age group should include 'mild challenges'; Children aged 5-6 can try complex combination and creative toys, focusing on cultivating their spatial thinking ability, creativity, and cooperation ability. Montessori education theory also emphasizes that "at this stage, children have a strong desire to construct, and complex combination toys can meet their needs for independent exploration and creation.

4.4 Simplify the production process and reduce the difficulty of home operations

The production of tools should follow the principle of extreme simplification, minimize the types of tools used, and avoid using specialized and complex tools. Homemade toys should prioritize the use of common tools in rural households such as scissors, glue, ropes, and sandpaper, and avoid the use of dangerous tools such as electric drills and chainsaws. The production steps need to be refined and decomposed, leaving complex production processes to be completed by parents, and children only participate in simple production processes. The parent-child division of labor production model should be adopted: parents are responsible for complex processes such as dangerous operations and structural construction, while children participate in simple processes such as assembly, coloring, and decoration. This division of labor mode not only ensures the safety and operability of the production process, but also allows children to fully participate and gain a sense of achievement.

5. Application strategies of homemade toys for rural children's families

The educational value of homemade toys in rural families is not only reflected in the production process, but also in the scientific and rational use, allowing children to learn through play and play through learning, achieving comprehensive development of cognition, ability, and emotion. The Guidelines for Learning and Development of Children Aged 3-6 explicitly state that "children's learning is based on direct experience, conducted through games and daily life", requiring educators to "create rich educational environments, arrange daily life reasonably, and maximize support and satisfaction for children's needs to gain experience through direct perception, practical operation, and personal experience"[12].

5.1 Combining rural life scenarios to enhance immersion

Deeply integrate homemade toys with daily rural scenes such as farming, household chores, and natural exploration, making play more practical. Mini farming tools can be made using common hemp ropes in rural areas, allowing young children to imitate adults' "planting vegetables" and "weeding" in the courtyard vegetable garden, familiarize themselves with the use of farming tools and agricultural processes; Transforming plastic bottles into "watering kettles", allowing children to follow their parents to water potted plants and vegetable gardens, and master simple labor skills through play.

5.2 Adopting heuristic guidance to deepen the value of education

Parents should abandon the two extreme interactive methods of "laissez faire" and "intervention", and participate in the process of children's play as "observers, guides, and collaborators". By asking open-ended questions to stimulate children's curiosity, different types of toys are guided differently: cognitive toys focus on guiding observation and comparison, hands-on toys focus on standardized operation and problem-solving, while social toys focus on division of labor, cooperation, and communication expression. Firstly, parents can use idle or discarded items at home, such as plastic water bottles, cardboard, fabrics, etc., to assist and guide young children to participate in and complete the production of toys such as pasted paintings and handmade flowers, exercise their hands-on creativity, cultivate their

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aesthetic sentiments, and enhance their confidence and sense of achievement. Secondly, parents can lead their children to renovate "old" toys that they are no longer interested in, such as Lego, toy cars, train tracks, and other detachable toys. This can not only satisfy the natural curiosity of young children to explore novel things, but also improve their observation, attention, and creativity in guiding them to disassemble toys [9].

5.3 Expand diverse application scenarios and enhance the value of toys

Breaking the monotony of self-made toys for young children, expanding the venue to community activities and festival customs in the village, not only increases the gameplay, but also allows young children to learn more things. In rural communities, follow the parent-child activities organized by the village committee: hold a homemade toy sharing session, allowing children to showcase their self-made corn cob blocks and bottle cap collages, share their experience of making homemade toys with other children, and learn new ways of playing with each other; Organize a parent-child handicraft competition, where several families work together to make toys using straw and paper boxes. The children follow their parents to divide the work and cooperate, not only having fun but also learning how to cooperate with others.

6. Guarantee mechanism for the development and application of homemade toys for rural children's families

Rural home made toys have truly transformed from being "just for play" to an educational carrier that can teach young children to grow. Based on the actual situation of rural preschool education, we will start from four key aspects: helping parents change their mindset and understand the educational value of homemade toys; Teach parents how to interact scientifically with young children and play with toys; Then let the kindergarten and the family cooperate and support each other; Finally, we rely on policies and professional expertise to provide sufficient external support.

6.1 Core premise: Transformation of parental education philosophy

The transformation of parental education philosophy is a prerequisite for the implementation of the educational value of homemade toys. Only through solid training and real cases of people around us can rural parents understand that homemade toys are not just "toys" for children to pass the time, but also help them learn skills. Training cannot be done in a one size fits all manner. It should be tailored to the needs of parents and young children, combining online and offline methods to learn knowledge without wasting time. Conduct practical classes in township kindergartens or village committee activity rooms, and invite teachers from county kindergartens to teach on-site. Collect real cases in the village, write down clearly "what materials were used, how they were made, and what changes have occurred in the children" for each case, print them out and paste them in the village committee, or post them in the group for everyone's reference.

6.2 Decisive factors: scientific guidance and scenario expansion for parent-child interaction

The quality of parent-child interaction guided by science and expanded scenarios directly determines the actual effectiveness of the educational value of homemade toys. Efforts need to be made from two aspects: optimizing guidance methods and expanding scenarios, to construct a "precise guidance+diverse scenarios" parent-child interaction model. Parents encourage young children to innovate independently, and when encouraging them to create and develop homemade toys, they should encourage young children to create their own toys that they are interested in and meet their gaming needs. Provide children with abundant materials and tools, such as paper, glue, leaves, pine cones, etc., and also prepare safety scissors, tweezers, nails, and other tools. By displaying pictures, objects, and other means, stimulate children's imagination and allow them to expand their thinking based on pictures or objects, and make toys they like. During the creative process, guidance and optimization suggestions should be provided to enhance children's hands-on and creative abilities [10].

6.3 Important support: construction of home school collaboration mechanism

As the main body of the profession, kindergarten should take the lead in tying parents together and building a home school collaboration mechanism of "professional guidance, two-way communication,

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and resource exchange", so that rural families can no longer make their own toys, but work together to make toys more scientific and fun. The kindergarten forms a guidance group composed of principals and key teachers, and takes time to visit rural families every month. Kindergartens integrate homemade toys into daily teaching, allowing parents to see and learn. The teaching activities will be shared with parents through class group videos and photos, along with a simple tutorial on how to replicate at home.

Build a communication platform that allows kindergartens and parents to listen to each other's needs and share experiences, no longer just "kindergartens speak unilaterally, parents are swayed". Zhang Qiong believes that the effective development and utilization of homemade toys in regional game teaching can enable children to perceive and discover problems while playing, effectively cultivate their good cooperation and social skills, and promote their comprehensive development and progress. For example, when the Mid-Autumn Festival is coming, teachers can hold regional games with Mid-Autumn Festival as the theme for children, and assign different activities and tasks to children according to their different personalities and hobbies. For example, some children like painting. Teachers can provide them with some painting materials for the Mid-Autumn Festival and guide them to make "Mid-Autumn Festival Pictorial" [11].

The kindergarten has established a "self-made toy resource library" in the class group and the park resource corner: the kindergarten shares "toy design plans for different age groups" and "local resource lists", allowing parents to share their excellent cases for everyone to learn from.

6.4 Long term guarantee: perfect external support system

The external support system is the key to the long-term development of the educational value of homemade toys for rural children. It is necessary to build strong guarantees from both policy and professional aspects, so that rural families and kindergartens can no longer "fight alone". The development of homemade toys should be included in local education plans, and policies, funds, and platforms should be used to pave the way for practice. The Education Bureau has included homemade toys for rural families as a key project for the development of preschool education and established a special annual fund. Part of it is used to purchase safety toolkits and distribute them free of charge to rural families with young children; The other part is used for conducting parent training, home parent-child handicraft activities, etc. Township kindergartens use funds to invite experts to conduct hands-on training on homemade toys every quarter, and parents participate for free throughout the entire process, greatly improving their participation enthusiasm. Promote pairing assistance between high-quality kindergartens in urban areas and rural kindergartens. Urban kindergartens regularly provide resources such as self-made toy lesson plans and material development lists to rural kindergartens. At the same time, the local government, in conjunction with the village committee, held a "Rural Homemade Toy Carnival" at the township cultural square, setting up activities such as artwork display, parent-child competition, and experience exchange, allowing parents in each village to learn from each other. Build a linkage mechanism between universities, research institutes, and kindergartens to solve the problem of rural professional resource scarcity with professional strength.

7. Conclusion and future prospects

Under the background of rural revitalization, rural children are facing the problem of a shortage of commercial toy resources and insufficient adaptability, which makes it difficult to meet their educational and development needs. Homemade toys, with the advantages of easy access to materials, low cost, and suitability for rural life, have become an effective way to fill this gap. Currently, there are problems with parents' cognitive biases, arbitrary production, single gameplay, and insufficient home school collaboration in homemade toys in rural households, which have resulted in their educational value not being fully realized. Constructing a four-dimensional strategy of "transforming parental concepts, optimizing parent-child interaction, strengthening home school collaboration, and improving external guarantees", clarifying resource categories, following educational principles, and designing according to age, integrating rural scenes, heuristic interaction, and diversified scene expansion, effectively exploring its educational value. It can promote the comprehensive development of children's cognition, hands-on ability, cultural identity, and provide practical paths for the development of rural preschool education resources, and help cultivate early talents for rural revitalization.

The current research sample is limited to some rural areas, and in the future, the research scope needs to be expanded to optimize the targeting and adaptability of strategies based on the differences in resources and development of rural areas in different regions. Attempt to combine digital technology

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with homemade toys in rural households, enrich the educational forms and interactive experiences of toys, and broaden the path of education. Further improve the multi-party linkage mechanism of "universities research institutes kindergartens families governments", strengthen the sustainability of policy support and professional guidance, and promote the long-term development of the educational value of homemade toys in rural families.

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