



UNDERSTANDING THE ROLE OF TOYS IN CHILD DEVELOPMENT: SPECIAL FOCUS ON TRADITIONAL CHANNAPATNA TOYS

Ms. Sampurna Guha

Research Scholar, Dept. of M.R., RKMVU-FDMSE, Coimbatore, Tamil Nadu

Mrs. Kamamakshamma Murthy

Asst. Prof, Dept. of VI, RKMVU-FDMSE, Coimbatore, Tamil Nadu

ABSTRACT Play is an integral component of all childhood activities. Play provides rich and stimulating experiences to the growing child. Children who do not engage in play behavior or do so only for short periods of time are found to display stress behaviors like rocking and wiggling. They have low self-esteem and are less advanced in motor, academic, language and social skills (Berk, 2009). Many research studies have explored the impact of peers, teachers, families, home and school environment on play interactions. But there is a dearth of research focus on the impact of toys on child development. The results of some studies conducted in the past indicate a powerful influence of toys on children's thinking, social interaction and creative expression. In fact, different toys influence children's behavior in different ways (Aber et. al., 2007). The use of toys varies across culture, age, gender, economic status, children and families. Recent data also reveals a shifting trend in the gender specific use of toys with girls preferring to play with toys traditionally viewed as male oriented. This paper aims to attempt to understand the importance of toys in child development, explore the types of toys with respect to target areas of child development and developmental stage of the child and also to appreciate the unique features of traditional wooden 'channapatna' toys.

KEYWORDS : toys, play, child development, wooden toys

INTRODUCTION

'Play is the lens through which the child experiences their world and the world of others and toys bring joy' - Goldstein

In studies related to child development, attempts are made to study and understand the developmental changes from conception through infancy, childhood and adolescence to adulthood (Santrock, 2007). Child development is divided into three broad domains - physical, cognitive, emotional and social (Berk, 2009). Children learn from their surrounding environment by listening, observing and mainly by doing. Children need to have direct experiences in order to learn and make sense of the world around them. Hence they make use of their senses to learn and grow. 'Senses are the gateways of knowledge'- Maria Montessori. Toys act as an aid to help them learn and interact with the environment using their senses. Example: babies are not born knowing about gravity. They do not know that anything dropped will fall to the floor. They learn this, by playing with toys. Infants may accidentally let go of a rattle and notice that it falls to the floor. When you give it back, they may deliberately drop it to see if it falls again. Playing with toys is an essential phase of childhood development. Toys help the child to play, acting as their tools used in the play. Children develop cognitive principles such as object permanence, the understanding that objects continue to exist even when they are out of sight, through their toy based play (Aguar & Baillargeon, 1999).

OBJECTIVES

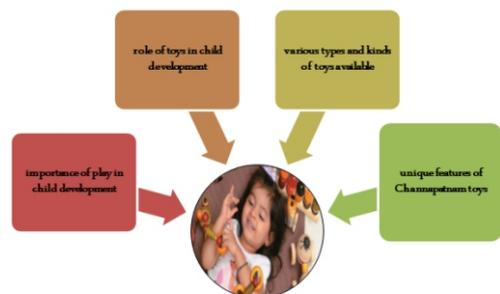
The following paper attempts to explore the topic chosen for the present study using thematic analysis which is one form of qualitative research (Basavayya & Venkataiah, 2016). The researchers have framed the following objectives for the analysis:

1. To understand the importance of play in child development
2. To understand the role of toy in child development
3. To understand the various classification and types of toys available
4. To understand and appreciate traditional wooden toys : *channapatna* toys

RESEARCH QUESTIONS

On the basis of the objectives, the following research questions have been developed for the present study:

1. What is the importance of play in child development?
2. What is the role of toys in child development?
3. What are the various types and kinds of toys available?
4. What are the unique features of *channapatna* toys?



METHODOLOGY

The study makes use of thematic analysis, document analysis and details of personal experiences of the researchers, in an attempt to answer the research questions. The findings obtained are summarized and stated below:

IMPORTANCE OF PLAY

Play helps the growing child to develop all the skills needed in the future as an adult, such as motor skills, coordination, counting, speech and abstract skills such as imagination and creativity. It also helps to develop problem solving and planning skills. Thus all types of play-imaginative, solitary, role play, creative play holds a very important place in child development (Goldstein, 2003). Studies reveal that if children are deprived of play, they suffer both in the present and in the long term. With adequate opportunities for play, children stand their best chance to become healthy, happy, productive members of the society.

Some benefits of play:

- Play helps in development of physical fitness; gross motor and fine motor skills; cardiovascular fitness.
- Play helps in development of social skills and sense of morality.
- Play is an effective teaching strategy.

UNDERSTANDING THE ROLE OF TOYS IN CHILD DEVELOPMENT

Toys are the tools of a child's play. Playing helps the child to practice growing up. Toys can be purchased or made at home using simple everyday objects. Even objects of daily use like spoons, cups, plates act as a child's toy. Toys can help to promote motor, mental, imaginative and social development of children. Toys help to spark the child's

imagination, engage the senses and encourage them to interact with others. Every new shape, texture, sound, color is a new learning experience for them. For babies, rattles and other sound producing toys help to arrest attention and contrasting colored toys help to stimulate their developing vision. Thus toys help the child to discover and develop his senses. As the infant grows, toys can help in exploring object permanence and promote development of motor skills. Toys act as the very pathways to play.

CLASSIFICATION OF TOYS

After in depth analysis of various studies and documents on child development (Berk, 2009; Santrock, 2007) the following inference can be drawn about toys: they are mainly of two broad types:

1. Toys according to the targeted area of development
2. Toys according to developmental stage of child

TYPES OF TOYS

1. Toys according to the targeted area of development:

Toys stimulate and prolong play. Toys foster overall development of the child in various spheres like physical, mental, and social.

A. Physical development (eye hand coordination and fine motor skills): Stacking toys like toy blocks and rings help in development of eye hand coordination and fine motor skills. The child grasps the block, picks it up and places it on top of another block. Physical play using toys helps to build strength in the limbs, neck and back.

B. Development of motor skills, coordination and balance: Rocking toys like rocking horse, jungle gym, pulling and pushing toys help to develop physical motor skills, balance and coordination and muscle control such as: wagons, toy bikes, pulling train. Some toys encourage the child to climb and ride such as rocking horses. Such toys meant for physical and muscle development, encourage the child to walk, jump, hop, run.

C. Development of imagination and creativity: Empty cardboard boxes can promote creativity and imagination in the child as he plays 'pretend games'. Toys for make-believe games aiding in social development: dolls, dress-up clothes, empty boxes.

D. Cognitive development: Puzzles are toys which help in intellectual development of the child

E. Development of self-confidence: Children gain self-confidence when they complete a puzzle, ride a bicycle or even stack a toy block tower. They gain a sense of satisfaction derived from completion of task.

F. Social development: Toys help in building friendship by teaching children to share and care. Children may share their toy car with each other and also learn self-regulation of emotions when their toy car is taken away as a punishment. Social plays like peek-a-boo helps in social skills development and engagement.

G. Academic skills development: educational toys facilitate learning academic skills among the child such as number concept, color concept, shapes, sizes, animals, body parts. Such concepts can be taught through educational boards.

H. Toys for sensory (touch, sight, sound, taste, smell) development: water toys, musical instruments, bubbles, play dough, and sand toys. Berk (2009) mentions a research study published in the Journal of Pediatrics which sheds light on the importance of play and the impact of toys on child development. The study highlights the role of toy based play in developing cooperation and self-control skills in the child, while children who did not engage in toy based play behavior totally or not frequently needed additional support to access the many benefits of play. Another study tracked the behavior of over 10,000 children in the age group of 8 and 9 years, with and without recess. It was seen that children having break time of at least 15 minutes to engage in play time with or without toys achieved better grades.

2. Toys according to the developmental stage of child

Children need different toys according to their age and level of development. Babies and infants will play with some toys, toddlers will need different toys for sense stimulation, young children such as those in pre-school may still enjoy playing with their younger age toys but they need more challenging and learning oriented toys to promote

their overall development. Hence the nature and type of toy keeps changing according to the level of development of the child and the unique needs of that age group (Roy, 2009).

A. Infancy (0-12 months)

Babies perform actions like touching, grasping and mouthing for sense gratification. As the babies advance in physical and mental development they like throwing and pushing. Toys help the child to engage and explore their surroundings by touching, mouthing, banging, throwing and pushing, grasping, dropping. As babies start stretching and moving their arms and legs, their limbs get strengthened to handle bigger challenges in play. Toys like rotating baby mobiles, mirrors, play mats help them in achieving developmental milestones like crawling, sitting, standing.

B. Toddler (1-2 years)



At this stage the babies develop independence in moving by crawling and walking. Push toys like pulling train, duck family can be of great interest to the child and help him become proficient in independent walking skills. As the child prefers solitary play, stacking cups, blocks, shape sorters are very good toys for this age. Such toys help to develop eye hand coordination, size and shape concept and color concept thus leading to intellectual and academic skills development.

A. Early childhood (3-6 years)

As the child enters early childhood, he becomes more aware of his surroundings and engages in imitation play and group play. Playhouses, kitchen sets, small cars, vehicles, musical instruments like xylophone, guitar are good teaching-learning materials for this age. Role play with masks can help child to develop social skills and mingle with peer group easily. Imitation games help the child to learn from his peers and surroundings. The child may have small tea parties with her friends and toys or may shave like his father. Toys at this age also help in gender role identification; generally girls prefer to play with kitchen and doll sets while boys identify with cars, trucks and mechanical robot sets. It is also seen that playing with toys helps in development of team work skills in the child, as he learns to play and share his toys with his peers.

B. Toys for pre-school and school aged children:

At this stage, children start learning about letters, numbers and language skills. Such children need educational and learning toys like puzzles, alphabet and number boards. Such toys help the child to play and learn and thus develop a positive attitude towards learning.

ABOUT CHANNAPATNA TOYS

Channapatna toys are a particular form of wooden toys (and dolls) that are manufactured in the town of Channapatna, just an hour's journey from Bengaluru, the capital of Karnataka, India. This traditional craft is protected as a Geographical Indication (GI) under the World Trade Organization, administered by the Government of Karnataka. As a result of the popularity of these toys, *Channapatna* is known as *Gombegala Ooru* (doll/toy-town) of Karnataka. Traditionally, the work involved lacquering the wood of the *Wrightia tinctoria* tree, colloquially called *Aale mara* (ivory-wood).



Fig-1: Channapatna Toys: environmentally-safe, non-toxic, child-friendly, rich in cultural value, showcase artisans skills (image source: internet)

Origin: Can be traced to Tipu's era (18th Century). It is believed that he

invited Persian artists to train the local artists in the art of wooden toy making. The uniqueness of these toys: their vibrant colors and symmetrical shapes. These wooden toys are manufactured and sold in the "toy town of Karnataka," *Channapatna*, which is located about 60 km from Bangalore on Mysore Road. With changing trends, in addition to the traditional ivory-wood, other woods such as rubber, sycamore, cedar, pine and teak are also being used. The manufacturing stages include procuring the wood, seasoning the wood, cutting the wood into the desired shapes, pruning and carving the toys, applying the colors and finally polishing the finished product. The use of vegetable dyes for coloring makes the toys and dolls safe for children. Turmeric is used for the color yellow, indigo powder for blue, and *Kanchi kumkum* powder for orange and red. These toys are also called as lacware toys due to the use of lac (a natural resin) in polishing of the toys. It is interesting to note that *channapatna* toys are one of the 27 Geographical Indicators (GI) of India. GI certification, is a part of the Intellectual Property Rights protocol of the WTO, and it protects these products from being replicated elsewhere (Belgaumkar & Sastry, 2006). Currently over 6,000 people are engaged in making and selling toys. The Karnataka Handicrafts Development Corporation plays a major role in marketing these products. Artisans produce toys in 254 home manufactories and 50 small factories in villages around Channapatna, (Das, 2014).



Figure-2(a): child playing with channapatna toys (source: Das, bussinesstoday.in)

Figure-2 (b): Women artisans working in organic Maya factory making channapatna toys (source: Das, bussinesstoday.in)

These toys can be purchased from local roadside shops in *channapatna*, or can also be ordered from e-commerce websites like *Craftsvilla.com*, apart from *Maya Organics* which is a non-profit organization.

UNIQUE FEATURES OF CHANNAPATNA TOYS

Channapatna toys popularly known as lacquer toys are a part of the rich traditional and cultural heritage of India. These toys showcase aspects of the great and rich Indian culture through toys and dolls in form of farming, village life, king's processions, musicians, vegetable and fruit sellers, gods and goddesses and even scenes from the *Mahabharata*-Lord Krishna's teachings to Arjuna (Gita). The uniqueness of these toys is highlighted below (Das, 2014):

- These are wooden toys, traditionally made from ivory-wood, sometimes sandalwood also may be used, nowadays with changing trends, cedar, pine, teak and rubber are also being used.
- Each and every part of the wood is used, scrap wood pieces are used to make small parts such as beads and tops, even the powdered remains of the wood are given to *aggarbatti* industries.
- These are made using eco-friendly process.
- The entire manufacturing process may be totally done by hand by local artisans and nowadays machines such as motor driven lathes are being used.
- The toys are painted using vegetable dyes and polished using lac (natural resin)
- These toys are non-toxic, environment friendly.
- There are toys suited to all age groups, different stages of child development and for development of specific skills areas.

Nature of toy	Image of Channapatna toy
Sound making toys	
Stacking toys	
Motor skill development toys	

puzzles	
Educational toys	
Human dolls	
Heritage and cultural dolls	
Everyday item depicted as toys	

Table-1: A Sneak peek of channapatnam toys

These toys have dual design: child friendly and attractive. On being compared with other toys on various aspects like pricing, nature-friendliness among others, *channapatna* toys scored higher than the other toys as shown in the table below.

S. n.	Features	Channapatna toys	Other toys
1	Eco-friendly	Yes; <ul style="list-style-type: none"> • These toys are made of wood, painted with vegetable dyes, polished using lac, a natural resin • are eco-friendly and safe 	No; many Chinese toys and cheap plastic toys have high lead content which is toxic
2	Safe	Yes; <ul style="list-style-type: none"> • these are non-toxic • babies and toddlers can safely chew, mouth and play with such toys 	No; plastic toys are toxic
3	Cultural value	High; <ul style="list-style-type: none"> • These toys showcase the rich cultural heritage of India- wooden toys depicting villages, gods and goddesses, carts, vehicles, trains, dolls • The history of these toys dates back to Tipu sultan's period • these toys are also one of the GI's of India • an entire town is famous as the town of Karnataka 	Low; do not showcase the rich culture
4	Artistic skills and design	High; <ul style="list-style-type: none"> • the crafts men are specially trained to make these toys, • the entire manufacturing process may be manual or mechanized • each toy needs minimum 10 components 	Low; Mostly machine made
5	Role in the Economy of the country	<ul style="list-style-type: none"> • Manufacturing of these toys provide a source of employment for the artisans and craftsmen • this craft is being revived by the KHDC 	
6	Price	Affordable and cheap; price ranges between Rs.10-Rs.1500	Chinese toys and plastic toys are cheap but toxic

Table-2: Comparison of basic features of toys between channapatna toys and other toys

Choosing toys for a child to play with is an immense task for the parents. Teachers should help parents choose the right kind of toy based on the child's age, level of development, interest and target skills to be developed. The nature of toys are discussed in the table below:

S. n	Nature of toy	Age level (years)	Target area	Channapatna toys
1	Rattles, sound toys, whistles	0-1	Sound training, localization, discrimination	Different types of rattles, human and bird shaped whistles, xylophone, flute
2	Stacking toys	1-2	Eye hand coordination, fine motor skills	Stacking blocks, cups, wooden pieces
3	Pulling and pushing toys	2-3	Gross motor skills	Pulling toys like pulling Train, duck family, caterpillar
4	Puzzles	3-6	Cognitive	Animal and picture puzzles
5	Learning toys/educational toys	4 and above	academics	Number boards, human body parts, Number concept, sizes, shapes, colors, vehicles
6	Human dolls	4 and above	Learning about occupations	Human dolls of various shapes and sizes
7	Heritage and cultural value	4 and above	Cultural understanding	Village scene, farming scene, dolls of gods and goddesses
8	Gender role specific toys	4 and above	Teaching about gender roles	Kitchen sets, vehicle sets

Table-3: age group-wise skill development based classification of toys

TRADITIONAL CHANNAPATNA TOYS AS EFFECTIVE TEACHING AND LEARNING AIDS

Children of all ages can benefit from playing with *channapatna* toys. Apart from learning basic academics skills like numbers, colors, shapes using attractive, colorful and non toxic wooden toy and blocks, they are also exposed to the rich culture of India, through these toys (Belgaumkar & Shastry, 2006). Many parents prefer to provide their children, Barbie dolls and doll houses which are made of plastic. We should encourage parents to gift their child a unique learning experience through such traditional Indian origin and made toys like *chhanapatna* toys, as these will allow the child to experience Indian heritage, are safe and non toxic unlike plastic toys. Children will also learn to appreciate the artistic skills of the artisans making these toys. These toys will especially enable the city bred of today's generation to know about the lifestyle of the past, through traditional toys showcasing ancient modes of travel- cow and bullock carts, village life, gods and goddesses of Indian culture. Above all these toys make learning fun.

Some advantages of using *channapatna* toys for children

- o **Exposure to rich Indian cultural heritage:** as stated before the child gets an insight into the rich traditional culture of India, through these toys. These toys are having a design which has dual purpose: child friendly, attractive and culturally rich. One can find toys and dolls depicting farming, paddy growing, fruit and vegetable selling, village life, marriage processions, kings processions among other things.



- o **Exposure to Indian religious idols of Gods and goddesses:** the child can get exposed to numerous gods and goddesses of the Hindu religion through such toys. There are wooden dolls of Ganesha, lord Anjaneya, scenes from the life story of Lord Krishna - depicting his birth, killing of various demons and his worship.
- o **Appreciation of arts and craft-** by playing with these wooden toys the child will develop his aesthetic sense and learn to

appreciate the bright and vivid colors of these toys apart from the unique designs of these toys.



- o **Learn values - respect for labor:** The child will learn to respect the artistic skills of the craftsmen involved in making these toys. Each toy has at least 10 components. Even small toys require hours to workmanship to reach the final product stage. Many local artisans do not use machinery and prefer to do all the work with hand; their measures of the dimensions of the toy sizes are
- o based on their expert intuitions and years of expertise (Roy et. al. 2013). The child will learn value of hard work and labor by looking and playing with these toys, unlike plastic dolls which are machine molded, toxic and have no handicraft component.
- o **Exposure to daily life events:** for city born children, rural life is an enigma. The daily life events of farmers, putting traditional designs in front of the home, milking the cow, singing folklore are all unseen and unheard of. Through these toys they can get exposed to the rich cultural life events of the rural folk, learn to tolerate and respect diversity and appreciate the cultural aspects woven in the very fabric of the Nation.

CONCLUSION

Toys hold a very significant place in the life of all children. Play time can be used to develop various skills in the child such as language proficiency, motor skills, cognitive skills and emotional development. Wooden toys such as the traditional *channapatna* toys known for their nature friendly production and child friendly nature are an interesting and important component of toy based play for children. Yet such toys are facing tremendous threat from cheap Chinese toys and low quality, toxic plastic toys which are less priced. This is a dying craft and various factors are leading to its slow but sure death. Some of the challenges faced are (Roy, 2013):

1. poor working conditions for the artisans and workers involved in toy making
2. presence of middle men in the selling stage reduce profits for the artisans
3. lack of demand for such toys
4. rising costs of lac (an important component for the final polish of the toy) reduces profit margin for the workers
5. The artisans who use motorized machines for making the toy have to support the financing of their own machinery further creating problems and thus they do not wish their children to join this craft, making it a dying art

From personal experience, children and adults like *channapatna* toys alike, due to attractive and bright colors, unique designs, toys for all age groups and in all price ranges. Adults like to use wooden penstands, cushion tops and house décor items among *channapatna* items.

Some suggestions are as follows: Schools, play schools, crèches, resource rooms should stock such toys as play tools for the children. Teachers should support such toys and make them available for the child to play in their schools and centers, also encouraging the parents to buy these toys. Already the KHDC is taking some measures to promote this state craft, we should have more exhibitions and events to showcase such child friendly, cheap, durable and effective learning aids such as *Channapatna* toys.

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