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**DESIGN AND ARTISTIC TOOLS IN THE INTERACTIVE  
CHILDREN'S BOOK**

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*The article is devoted to the problem of the interactive children's book design, in particular, the reasoning, of constructive and artistic means of its creation. The aim of the work is to clarify the concept of a modern interactive book for children, its classification and the appearance of design features. On the basis of the integrated research method, the interactive book is considered as a product of the synthesis of literary-methodical and artistic activities and the design tools for creating a unique book image are proposed. The main tasks of the designer are to determine the dependence of the design form on the functional purpose of the book; transformation of the form for the purpose of obtaining new developing and cognitive functions of the book; search of interconnection of an external design with text and illustrative materials.*

*Key words: Interactive children's book, movable book, design, construction, artistic tools, composition, illustration.*

**Introduction.** The existence of the interactive children's book among an array of other printed publications for children is due to the peculiarities of the initial period of child development. According to psychologists, during this period, the child takes as much as possible everything that surrounds her. The effectiveness of the perception of books for the smallest is enhanced by a quantum well, dramatized or constructive game, the connection and similarity of the book to the traditional toy. The issue of children's book design quality is becoming more and more relevant. The

search for new ways in the design of the book requires the expansion of a range of constructive and stylistic features, artistic means and techniques for forming the book. During recent decades, issues of the history and typology of the children's book were raised by such researchers as Y.Gerchuk, Y.Gankina, S.Karaychentseva, M. Yefimova [1; 2; 3; 4]. The essence of publishing processes when creating a children's book is E. Ogar, B.Valuyenko [5; 6]. Understanding the notion of literature for children, its content specifics is given by I.Arzamatsseva [7]. At the same time, in these studies, the problems of design and artistic peculiarities of a toy book were practically not raised.

**Objectives.** The purpose of the article is to clarify the concept of a modern interactive book for children, its classification and the appearance of design features.

**Presentation of the main material of the article.** According to the State standard, an interactive book (toy book) is a publication of special design forms intended for mental and aesthetic development of children [8, p.12]. Traditional signs of a text-art edition are combined in a toy book with certain external stimuli - auditory, optical, constructive, tactile, etc., which stimulate the playing of the child. While working on the design of a interactive book, it's important to remember that the basis of this book, as well as any other, is literary content. If a child with a book will only "play", then the latter will lose its function of transferring information. The children's book as an object of the subject-spatial environment is only part of a holistic system of objects surrounding the child, so it is important to design a book taking into account interdisciplinary connections and to consider it not only as a printed publication but also as an element in the system of the game - the game material - educational material - training. Thanks to the synthesis of a toy and a children's book, the educational and game subject-space environment becomes more complete. This interconnection of all

constituents of the environment must be taken into account when designing a book form. The interactive book is mostly designed for children aged 3-6 years. However, publishers often create books for the smallest readers - children up to one year old [9, p.5]. Such books differ significantly from other children's editions, because they do not contain text (except for the names of objects), but the main focus is on the visual component - one illustration (object) on one page. In books for children 3-6 years more actively used text, tasks, illustrations contain more details, the effect of the game is amplified by sound effects, smells, texture contrasting to the touch of materials [2, p.5].

In connection with the need to rethink the existing situation in the design of books for preschoolers and the search for new ways of creating publications, taking into account the psychology and age characteristics of the child, it is necessary to determine the criteria and methodological justification of the principles of classification of a toy book. It will also allow to predict the need to use new factors and patterns of constructing special forms of publications for children as a tool for education, development of thinking, memory, language, small motor skills, etc.

Despite the fact that there are a large number of solutions to original children's editions of various forms, they have much in common in functional qualities, in principle, organization of a constructive form, etc. In general, the classification of special editions for children will allow us to create a system of general and individual characteristics that should be endowed with editions when implementing certain functions. In the implementation of the function of the publication a significant role is played by its material design. For a constructive solution, all editions can be divided into two large groups: flat and volumetric [3, p.17]. Each of them includes a variety of books, which, in turn, can be united on the basis of similar qualities and principles of structural organization into separate groups of their own varieties. Most editions of a constructive solution can easily be attributed to one or another

group, however, often the book contains signs of both groups (a spreadsheet, a book with cross cutting block).

Under the influence of the functions performed by the interactive book, its following types were formed: a coloring book, a fun book, a spreadsheet, a book-figure, a tunnel book, a book with a game plan, a book-shop, a panorama book, a book with a carving elements, a revolving book, a musical toy book, a fingernail-toy-book.

When preparing a coloring book, the principle of availability and visibility is used, the game function is planned. The principle of accessibility is expressed in accordance with the age-specific drawing of the child, and the principle of visibility - in the parallel submission of the colored original. The game function turns out that the figure includes elements of the game – to perform a task, to find, cuddle, calculate, connect, cut, glue, and so on. The nature of the drawings of books intended for children of different age groups is different. For junior preschoolers in coloring books, desirable drawings of objects of the simplest forms with a greasy saturated line of the contour of the image. For older children, images become more complex, there is a large number of small details, the subject matter of the publication expands.

The modern form of the coloring book is a publication, where it is proposed to refine the submitted images not by means of coloring, but by means of pasting contained in the publication of the stickers. The game and developing functions are fully preserved (small hands are also used). The fun book is shaped like a pad and close to the formal-material features of a rubber toy for swimming. Such editions are offered for children from six months to three years. They should be water resistant (if necessary, they can be washed) and made using environmentally friendly non-toxic materials. Fat makes such a booklet soft so that it is completely safe to use. In the publications for the smallest such a book has more features of toys

with elements of tactile influence, then in publications for children up to three years there are interactive elements that make the book "live", encourage the game and learning - to tie lacing and ribbons, snap buttons and lightning and so on.

The book-screen is an ordinary soft edition, the production process of which is limited to printing, jogging, trimming and folding of a long ribbon of paper.

In general, the spreadsheet has the following benefits: 1. the verbal image transmitted due to the picture in the book-booklet becomes more understandable and clear; 2. the word associated with the picture is perceived more figuratively; 3. In the scan of the spreading book there is a possibility of comparative analysis - the children are looking for the common and the opposite in the drawings, they learn to think logically, compare forms, images, etc.; 4. the form of such a book is convenient for the deployment of the plot; 5. such a book can be considered simultaneously by a group of children; 6. The spreadsheet book is more informative than the usual form of the code.

Another traditional form of a interactive book that enjoys great popularity among children is book-figure. The form is able to actively influence the perception of the content, create additional emotional and content shades. A figure-book is created in the traditional way - printing, folding, sewing, but the trim does not work on three sides, but a special figured knife. All compositions on the spreads of the book are constructed in accordance with the configuration of the contour of the reversal. Figural cutting technology is used in books-cutting. By the usual form of the book, inside may contain sheets with curly cut, opening part of the image from the next page. Through cutting requires careful artistic design, because you need to beat both the front and back pages with the same stitches. Also, the carving is used to create a stereo effect in the book: the through holes

open certain volumetric elements that are immutable for each page. Another book-form – the book-folding project. It offers the child to do some work (to draw, cut, glued, collect), resulting in it will receive new "toys". Such publications contain all the necessary details and explanations and allow the child to complete all stages of work independently.

Books with hidden objects are very popular. They offer to readers to find camouflaging items. Whether the hidden object is a hard to spot character or an item specified by the author in a rhyming list, is subject to the book or possibly the series of books it belongs to. These types of interactive children's books are sometimes published with a common theme (life in the forest for example). Young readers can interactively experience a selective number of these books as early as age four and beginning at a pre-kindergarten grade level, depending on how easily the hidden objectives can be located [10].

A book with soundtrack or music book is a book that contains, along with visual information, audio support, expanding the ability to perceive the contents of the book. In addition to the unchanging soundtrack, a music book may contain a certain form keypad that allows you to create your own melodies for the child. This edition is for children aged 1 to 7 years. A peculiar group consists of books with a sculptural effect, or so-called pop-up books. On the reversals of such books there is a picture of a rather complex form and volume of sculpture. These figures are designed and folded so that when they close the book, they are folded and flat. It should be noted that most of the same edition combines several game elements that make up the material construction of a modern children's interactive book. Thus, the expressive properties of books for the smallest readers and the imagery of their architecture, which make up the material construction of books, can be provided at the expense of the unusual form of the book, the introduction of new materials and individual game modules. Each type of

interactive book is intended to perform its individual function, which is related to the development of individual skills in the child and helps the child to become more accustomed to the reading process [4, p.16].

There are three main types of artistic expressions used to create an interactive book:

- 1) structural and spatial means;
- 2) figurative and figurative means;
- 3) compositional-organizing means.

The construction is an active exponent of clarity publication, because it provides for books, toys qualities related with theatrical stage, the circus is a means to encourage active child to play. Construction of ordinary books is to select different layout options for publication, layout pages with text and illustrations, design elements. The design has two components: text (text construction) and block (material construction). The range of fonts used in preschool publications is quite wide. Depending on the type of publication, the volume of the literary text, the format, the way of design and printing, it is possible to use different fonts - handwritten and pictorial, dial-up and stick-outs [7, p.89]. Of particular importance is the stylistic unity of the image and the font. The color in each edition performs a number of functions: communicative, cognitive, artistic-expressive. In art history literature has repeatedly emphasized the tremendous role of color image for the comprehensive development of the child. Text colorization is possible both on the cover and in the main text. The introduction of colored text fragments into the set improves the emotional perception of the interactive books, enhances the artistic and expressive quality of the page and scan. In the process of designing a children's book it is important to take into account all the age and psychological characteristics of the child. All functions of the children's book can be divided into two blocks: utilitarian and cognitive-developing. The utilitarian functions of the book are based on



the ergonomic features of the reader; cognitive-developing consider the age and psychological characteristics of the child, gender differences. At the first stage, the content of the book, its intended influence on the reader, design, stylistics, style of writing, genre is studied. At this stage, a synthesized image of the content of the work and its visual graphic and form-forming concepts are created. Depending on the goal, the constructive form of the child's interactive book is explored the possibilities and options for using gaming and developing technologies. The initial product design is the solution of the project, expressed in a conceptual or sign form, and the final product is a project of a specific design object. In general, all component elements of the design-form of an interactive book can only be disclosed when the pages are flipped over.

**Conclusions and prospects for further research.** It is proved that various forms of the interactive book are an actual area for methodologists, publishers, and graphic designers. Finding suitable means of expression to create quality interactive books for children is acutely relevant. It was discovered that the design tasks of the children's book design include:

1. establishing the dependence of the design form on the functional purpose of the interactive book;
2. the use of modern educational techniques and developing technologies for the harmonious development of the child;
3. transformation of the design form in order to obtain new developing and cognitive functions of the book
4. search for the relationship between the external form and the book design with the materials used when creating the book.

Publications for children should reflect their world with its content, ease of presentation and expressiveness of linguistic form, interesting illustrative solution, colors, plastic form, and material construction. To provide this complex set of text and non-textual factors, a lot of efforts are



needed from the authors of the works of children's literature, publishers, printers and graphic designers such as good knowledge of the child's soul, the needs and aspirations of the child, a true creative approach, non-traditional design thinking, high-quality technologies

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