

**Design Thinking and Its Impact on the Design of Children's Story Covers
Among Students of the Institute of Fine Arts**

التفكير التصميمي وتأثيره على تصميم اغلفة قصص الاطفال لدى طالبات معهد الفنون الجميلة

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Research Summary

The current research (Design Thinking and Its Impact on Designing Children's Story Covers) contains three chapters. The problem was formulated with the following question: **What is the impact of design thinking on designing children's story covers ?**.

- **Objectives:** The current study aims to highlight the extent of the relationship between design thinking and its impact on designing children's story covers.
- **Importance:** The researcher identified the importance of the current study as design thinking being one of the modern teaching methods and contributing to understanding the design criteria for children's story covers and their attractiveness to children's attention.
- **Research Methodology:** Chapter Two dealt with the theoretical framework, most importantly the concept of design thinking, its stages, the main theories explaining design thinking, cover design and its features, and the elements available in designing children's story covers. Chapter Three used the descriptive analytical method in the research procedures for a group of story cover designs by students of the Institute of Fine Arts.
- **Results:** The results showed that design thinking is not just colors placed on the cover surface but rather a mental state related to the foundations and elements of design. All selected models achieved the element of dominance, whether through blocks and their distribution methods or the color used in the design.
- **Keywords:** Design Thinking, Cover Design, Children's Stories.

ملخص البحث

احتوى البحث الحالي (التفكير التصميمي وتأثيره على تصميم اغلفة قصص الاطفال لدى طالبات معهد الفنون الجميلة) على ثلاثة فصول وعلى النحو التالي تمت صياغة المشكلة بالتساؤل التالي ما تأثير التفكير التصميمي على تصميم اغلفة قصص الاطفال ؟

الاهداف : تهدف الدراسة الحالية الى ابراز مدى العلاقة بين التفكير التصميمي وتأثيره على تصميم اغلفة قصص الاطفال

الاهمية : وقد حددت الباحثة الاهمية للدراسة الحالية ان التفكير التصميمي يعتبر من اساليب التدريس الحديثة والاسهام في معرفة معايير التصميم لاغلفة قصص الاطفال ومدى جاذبيتها لانتباههم.

منهجية البحث : تناول الفصل الثاني الاطار النظري كان اهمها مفهوم التفكير التصميمي ومراحله واهم النظريات التي فسرت التفكير التصميمي وتصميم الاغلفة وميزاتها والعناصر المتوفرة في تصميم اغلفة قصص الاطفال . اما الفصل الثالث استخدم المنهج التحليلي الوصفي في اجراءات البحث لمجموعة من تصميم اغلفة القصص لطالبات معهد الفنون الجميلة.

النتائج : فسرت النتائج على ان الفكر التصميمي ليس مجرد اللون توضع على سطح الغلاف وانما هي حالة فكرية مرتبطة باسس التصميم وعناصره جميع النماذج المختارة حققت عنصر السيادة سواء بالكتل وطرق توزيعها او اللون المستخدم في التصميم .

الكلمات المفتاحية : التفكير التصميمي، تصميم اغلفة ، قصص الاطفال

Chapter One

Introduction

Recently, interest in design thinking has increased, considering it one of the most important methods for problem-solving that can be compatible with most fields. Design thinking is defined as a method of thinking based on focusing on the beneficiaries, knowing their needs, and providing the best solutions and production for them. In this research, the study focused on how design thinking can be used to design children's story covers that meet the child's need for visual appeal and amazement, suitable for their age group and cultural level, given that the element of reading is important for developing a child's personality in the age of technology. When choosing a story, a child relies on the design elements used, which ultimately influence the acquisition of that story.

Research Problem

The world is witnessing rapid development in all forums, with great advancement in the use of modern technology, social media, and modern educational methods in teaching students and developing their capabilities. Design thinking is considered one of the important tools at the present time due to its characteristic of rapid cognitive changes in all aspects of life. This rapid change and variety in knowledge necessitate that we deal with it in a specific way, as design thinking is considered the most important way that can help us keep pace with those changes. Due to the abundance of design programs used, especially those related to artificial intelligence, this leads to a gap in innovation and creativity. Therefore, the researcher focused on this aspect to develop design thinking to reach a more creative and innovative solution for developing the aesthetic aspect of designing children's story covers, relying on the innovative abilities of the students, which is an aspect that suffers from a lack of attention in the Design Department, Printing Branch. This allows us to answer the following question: **What is the impact of design thinking on designing children's story covers?**

Research Objectives

To reveal the impact of design thinking on the design of children's story covers.

Research Importance

١. Benefiting from highlighting the aesthetic aspect of children's story cover design due to its importance in attracting attention.
٢. Contributing to the identification of important methods and criteria in the design of children's story covers.
٣. Design thinking is considered a modern teaching method that contributes to influencing the enhancement of creative ideas in students.

Research Hypotheses

١. There is a positive visual relationship between design thinking and the design of children's story covers.
٢. Using design thinking in the educational process as a teaching method increases students' innovation skills.

Research Limits

- **Spatial Limits:** Institute of Fine Arts, morning study for girls, First Karkh Education Directorate.
- **Temporal Limits:** Academic year 2021-2022.
- **Research Sample:** An intentional sample of children's story cover designs by third-year students of the Institute of Fine Arts, Design Department / Printing.
- **Research Tools:** Validity and reliability form for analyzing students' outputs.

Research Methodology

The current research follows the descriptive analytical method when analyzing the students' outputs.

Research Terminology

- **Design Thinking (Definition by Al-Baz, 2018, p. 21):** It is a process that aims to solve problems and issues through the practice of imagination, the person's ability to define the problem from reality, exchange information, and generate innovative ideas.
- **Design Thinking (Operational Definition by the Researcher):** It is a set of mental processes carried out by the students, transforming the design idea into production and reaching creative ideas.

Chapter Two

Introduction to Design Thinking

Some might think that design thinking refers to graphic design, building design, clothing design, or product design. However, "the intended meaning of design thinking is problem-solving through innovative thinking present in human life and environment, adapting to it, and satisfying their needs, and understanding the needs of society. The method of these solutions might be a change in systems and the development of an intellectual structure to benefit from and update the environment to suit human needs"¹.

Individuals with high design thinking excelled in creativity and innovation in completing their work over those who are beginners in their design thinking.

There are several forms of "design thinking" as follows:

١. It begins by describing a vague idea about the desired shape to be designed, and over time, the idea crystallizes and becomes complete and clear.
٢. The second form of design thinking involves the person creating a plan, drawings, and models conceived in the human mind to transform a vague idea from plans, drawings, and images into realistic forms that can be applied and implemented in reality, which helps in forming an intellectual structure that facilitates the development process and forms the basis for the design thinking process.
٣. The other form of design thinking: is the cycle of illustrated words, which consists of putting ideas in the form of words that help the designer interpret and translate the ideas"². This explains the nature of design thinking, which is related to the generation of knowledge through work in multiple fields. "This means that knowledge is used in the production of work, and the evaluation of work produces knowledge"³. Therefore, we can say that design thinking is a creative problem-solving approach that has widely emerged as a measure of innovation focused on the individual.

Concept of Design Thinking

"It is the process of employing tools and practices to invent practical products and new creative solutions in problem-solving to serve the desires and needs of society, allowing us the ability to innovate in design"⁴. Design thinking is a term through which systematic methods and practical approaches are used by the designer to analyze and solve the design problem. It is considered an essential skill for innovative work that can be achieved through the practice of design thinking. "Experiments and research have proven that thinking in the designer's style and following such an analytical pattern is a method for analyzing and solving problems in non-design fields"⁵.

Design thinking is also considered a mix of different types of thinking. The term design thinking first prominently appeared in the 1980s, and it is not a modern approach, but its roots go back to the 1950s and 1960s.

Stages of Design Thinking

Design thinking is involved in every stage of the design process, and it is present in all design phases, starting from the design brief and ending with the final work. The goal is to reach creativity with different solutions for any brief presented. "Design is not a tangible thing but a special way and style of thinking for the designer.

It is an iterative process, always repeating in a non-linear way at different times. Its stages are not always sequential; they can work together in parallel, where the designer uses methods to generate ideas that contain creative solutions. To apply design thinking, its five stages, as indicated by"⁶, and proposed by the Hasso Plattner Institute of Design at Stanford University, 2016, must be followed as follows:

١. **Empathize:** Empathy is the first and most important stage in design thinking, and it is crucial in the process of innovation and design. Its goal is to reach ideas and designs closest to the consumer's needs by gaining an understanding and empathizing with them. To study the consumer's experiences and motivations, the designer puts themselves in the place of the person for whom the design or product is intended. The designer observes the different needs of the parties to the problem. When the designer senses a specific problem and observes the results, the designer continues to search for solutions to the problem.
٢. **Define:** In this stage, the designer analyzes the information collected through empathy in the previous stage to define and identify the main problem or problems that appeared and were observed through empathy with the consumer of the product. This stage focuses on the problem until it is known, defined, interpreted, and solved. The problem is defined by analyzing its elements, studying each element individually, identifying needs and problems, then refining them, and then formulating and defining them scientifically.
٣. **Ideate:** It is a process based on producing the largest number of ideas to solve problems. These ideas are not evaluated or rejected; rather, it is based on investigating them scientifically to generate a number of ideas characterized by originality, flexibility, and fluency, followed by the process of selecting implementable ideas. In this stage, the designer or design team must innovate and create out-of-the-box ideas and find innovative and distinctive solutions and use different thinking techniques to achieve the best and highest quality results.
٤. **Prototype:** It is the process of mentally transforming ideas by designing a preliminary model and knowing the acceptance of the previously inferred ideas. Through this model and its study, a decision can be made whether it can be produced on a wide scale to enter the product testing phase. If it is possible for it to succeed or return to a previous stage of design thinking, and then the impossible ideas are neutralized through experimentation. Here, the design team will have a better idea of the defects or problems present. They will have

a clear vision of how real users act, think, feel, and interact with the new product, which may require returning to previous stages or moving to another new stage.

٥. **Testing:** The process of receiving feedback on the proposed solutions and then improving them to get the best results and images, and re-doing the initial designs after environmental changes and user opinions. This includes usage tests and meeting consumer requirements through a group of users and collecting data to know and determine the extent of the product's success and identify the most important defects. Although this is considered the final stage, design thinking is iterative; the results are always used to redefine a new problem or more. Therefore, we may have to go back to the previous stages to make further modifications and improvements or to find other alternative solutions, and sometimes it repeats until we get a good product that can be produced without problems.

Principles of Thinking through which Design Thinking Works

Design thinking is one of the types of thinking that the designer relies on and works with, and it has principles that it relies on, the most important of which are:

١. **"Learning from Failure:** Failure is considered a distinguished tool for learning. Designing models, experiments, their interaction, and testing them is also the core of the design thinking process. Not all models are effective and useful, so we are exposed to failure while solving the problem. However, if we adopt the correct method of thinking, we will definitely learn something new from any failure"⁷.
٢. **Experimentation:** The design thinker firmly believes in the strength and effectiveness of transforming an idea into a tangible reality. Transforming a specific, real idea is itself a means of thinking about it. When the goal is to obtain good solutions in our world, we cannot remain in the world of theory; instead, we must transform ideas into a tangible reality"⁸.
٣. **Creative Confidence:** "The designer must have great ideas and possess the courage and ability to work on them. Creative confidence means that every person is creative inside. True creativity is not the ability to draw, create, or sculpt, but rather the person's ability to reach the world and create suitable designs and solutions for it"⁹.
٤. **Empathy:** "It means the ability to feel and sense others. Design thinking is based on empathy and the idea that the community we design for is our

roadmap for creative and innovative solutions. All we have to do is empathize and understand and take them into account during the design process"¹⁰.

٥. **Embracing Ambiguity:** "By this, we mean that the design thinker always starts from the point where they do not know the answer to the problem they are looking for a way to solve. Although this is not particularly comfortable, it provides an opportunity for innovation and creativity, following up on many different ideas, and reaching unexpected solutions. We embrace ambiguity so that we can give ourselves the opportunity for our imagination to be creative"¹¹.
٦. **Iteration:** "In iteration, we gain credibility along the way because we listen to the opinions of the people we design for. Design thinking is an iterative approach to problem-solving because listening to the opinions of the beneficiaries of the design is an important part of knowing the solution to the problem"¹².

Theories that Explained Design Thinking

١. **Plattner's Theory:** "As mentioned by Plattner and others in 2009, design thinking is the thinking that leads us to arrange our information about the environment and teaches us how to think outside the box and reach creative and innovative solutions that focus on the learner's needs and desires. This type of thinking can also be practiced by a group of people through cooperative learning or by one person individually"¹³.
٢. **Carlgren and Baggeroor's Theory:** Academic literature is still scarce and limited regarding the disagreement about the essential mental elements of design thinking, and there is no evidence for its measurement. They describe the designer's mindset as consisting of empathy, openness, intrinsic motivation, vigilance, optimism, and adaptability. The mindset refers to the orientation toward the task at hand. The mindset that deals with problems is described by elements such as exploration and experimentation, and it is tolerant of ambiguity, optimistic, and future-oriented.

Story Cover Design

Design is considered the art of visual communication, through which a message is conveyed that the recipient understands directly. In design, the designer relies on applying the foundations and elements of design and employing them optimally to achieve the desired goal. The foundations of design are an important and essential pillar in designs. When designing stories, "the foundations of design achieve

attractiveness and attention through the contrast of shapes, images, spaces, and colors used. Applying the foundations of design (balance, harmony, simplicity, contrast, unity, repetition, and function) expresses the designer's concept, philosophy, and thought. These foundations make the designer decide what to do with each of those elements" ¹⁴.

The story cover is the main interface that the reader views. It is the interface through which the consumer infers the content of the story. Everything has a face and features that distinguish it from others, and so does the story; it has a cover that distinguishes it and the artist who designed it, and it reflects its content. The cover also has a function to protect the story pages from damage, and it also has an important function in marketing, relying on the distinctive shape and attractive design. Children's stories are considered one of the oldest means of preparing rising generations. Psychologists and educational specialists agree that the method of designing children's stories is the best and finest way to convey what we want to convey to the child's mind. The story occupies the first place in children's literature. It is one of the most prominent arts of children's literature that possesses special artistic components. Children's books play an important role in their education. They effectively contribute to the development of the child's mind and the enrichment of their personality intellectually and cognitively. "They are capable of honing their talents and creativity through story illustrations, colors, images, and words. Caring for childhood is considered a concern for the future of society as a whole because the childhood stage occupies an important place within the strategies of progress and the developmental policy of society" ¹⁵.

Features of Children's Story Covers

It is necessary to attract and excite the child to decide to choose and read the story by relying on the pictures, drawn shapes, colors, and method of printing. Here we will mention a set of features that contribute to the success of the process of choosing and buying the story, as follows:

١. **Moving away from traditional shapes:** Children are drawn to stories that are far from the traditional shape. There are stories in different shapes, such as cars, animals, trees, and cartoon characters. There are stories that contain moving parts, and there are stories with three-dimensional shapes. The cover takes the shape of the story's subject itself. The designer of the story should take into consideration that children's story covers represent the spirit of joy for them,

and sad and gloomy drawings and colors should be avoided. Simple drawings with attractive, large colors that occupy the page are preferred. Easy elements, far from details, must be used, as they are the non-verbal readable language that attracts the child.

٢. **Color:** Color is considered one of the important basic elements in design and has the ability to attract and draw attention. It can bring joy or sadness or make us feel warmth or cold. Red is a strong, lively color that generates vitality and activity and gives a feeling of warmth. Orange is a socially friendly color. Yellow stimulates thought. "Green calls for connection and trust. Blue gives a feeling of cold and refreshment. White indicates purity and clarity of the soul. Colors should be vibrant and pure. The coloring method should be a single, pure, and clear color for each area, unmixed with another color. It is preferable to define the shape with clear black lines separating the used color areas from each other" ¹⁶.
٣. **Contrast:** Contrast is considered one of the important rules for attracting a child's attention. Contrasting colors should appear light and bright, and conversely, if the backgrounds are white or gray, then a dark background is considered better.
٤. **Highlighting and Emphasis:** An essential value between design elements can be achieved using color. This property can be used to emphasize certain elements intended to be highlighted in the design before the eyes of the reading child. Color does not only achieve highlighting of elements but also the general relationships in the design.
٥. **Reminder and Connection:** "Color is used as a link to connect the elements with each other. Color creates aesthetic value and easily reaches the minds of children. It also connects elements with each other as it is used to add unity to typographic elements" ¹⁷

Design Elements that Must Be Available when Designing Children's Story Covers

١. **Titles:** The story title is considered one of the important typographical elements that plays a major role in the components of the cover's appearance for any children's story. This is to convey the communicative message clearly to the reading child without any confusion that might prevent the communication process. The title's goal is to attract the attention of the target group of readers and convey the story's content or the content within it.
٢. **Pictures and Illustrations:** The use of pictures and illustrations is one of the most important factors influencing the addition of vitality and expression to

story cover design and attracting the attention of the reading child and encouraging them to read the story. This is achieved through the interaction between the title and the illustrations, in addition to creating contrast that ensures the success of the basic cover design process through the contrast of illustrations with the backgrounds. The picture conveys many connotations that can only be analyzed by knowing its symbols. The picture is considered a visual symbol that carries connotations and meanings to the recipient in terms of shape and colors. These symbols with connotations have multiple meanings according to the name and title imposed by the subject and according to the type of words, pictures, illustrations, and colors. Additionally, a cartoon character of a man, woman, animal, bird, or imaginary being appears in the illustration on children's book covers.

٣. **Colors:** Color is considered one of the important elements in the composition of the story cover due to its impact on the psychological nature affecting the recipient. This is through the strong psychological effects it creates, as colors attract attention through unity between design elements and maintaining that aesthetic unity in vitality and enjoyment under the light of the existing color diversity.
٤. **Lines:** Lines are used in different directions due to their major role in defining the shapes and images of the cover, dividing the spaces and areas of the cover, and creating movements.
٥. **Movement in Design:** Movement depends on the design's shape. The eye's movement within the design depends on each other. The eye moves across the field and stops at certain paragraphs for a long time or according to what it is attracted to and what it wants to know" ¹⁸.

Research Indicators

١. Design thinking is a creative approach aimed at developing design capabilities through experience and iteration to meet the needs of society.
٢. There are specific criteria and foundations that must be available and relied upon when designing children's story covers (balance, unity, simplicity, contrast, harmony, repetition, function).
٣. Illustrations are not just an element of children's story cover design; they are content with aesthetic value, emphasizing attracting the attention of the recipient, their age, and great culture.

Chapter Three

Research Procedures

١. The research adopted a path for the application of the current study as follows:
 - 1-1. This chapter deals with the practical aspect of this study, where the researcher will provide theoretical perceptions to the female students of the Institute of Fine Arts, Design Department, Printing Design Branch, about the fundamentals of designing children's story magazine covers, based on the basics studied in the principles and elements of design courses.
 - 1-2. The researcher determined the age group that the cover designs address, selecting the age group of (4-7) years.
 - 1-3. The researcher presented a set of diverse children's story covers, including local and Arabic editions, to achieve design perceptions by the students.
٢. **Research Methodology:** This study followed the descriptive analytical method (analysis of students' outputs).
٣. **Research Population:** The research population consists of a group of female students from the Institute of Fine Arts, Design Department, Printing Design Branch, Third Stage, totaling nine students. Their design outputs were presented to a group of experts in the specialization of printing design and art education to determine the research sample.
٤. **Research Sample:** The research sample is distributed over four design models of children's story covers selected by the experts, which the researcher seeks to achieve in this research.
٥. **Research Tool:** Since the current research seeks to demonstrate design thinking for children's story covers, which will be reached through the analysis of the sample models, the researcher relied on taking the indicators of the theoretical framework and utilizing them in formulating the paragraphs of the sample analysis tool as a tool used in analyzing the sample models, as well as the analysis form.
٦. **Tool Validity:** After the sample analysis form was completed and designed, consisting of several paragraphs, the researcher presented its final formulation to a group of experts and arbitrators (Appendix No. (1) names of experts) in the field of art education and printing design to identify its suitability for measuring the research objectives for which it was designed. (Cooper's equation) was applied to determine the agreement ratio by calculating the reliability coefficient between the researcher's analysis and the external analysts. The average reliability coefficient ratio was as follows:

- Reliability ratio between the first analyst and the researcher: 84%.
- Reliability ratio between the second analyst and the researcher: 95%.
- Reliability ratio between the first and second analysts: 83%.
- Average reliability ratio: 87%.

Stability rate ratio

The consistency rate between the first judge and the researcher	The consistency rate between the second judge and the researcher	The consistency rate between the first and second judges	Stability rate ratio
<u>%٨٤</u>	<u>%٩٥</u>	<u>%٨٣</u>	<u>%٨٧</u>

Statistical Methods

The mathematical equation was used for the purpose of finding the reliability coefficient as follows:

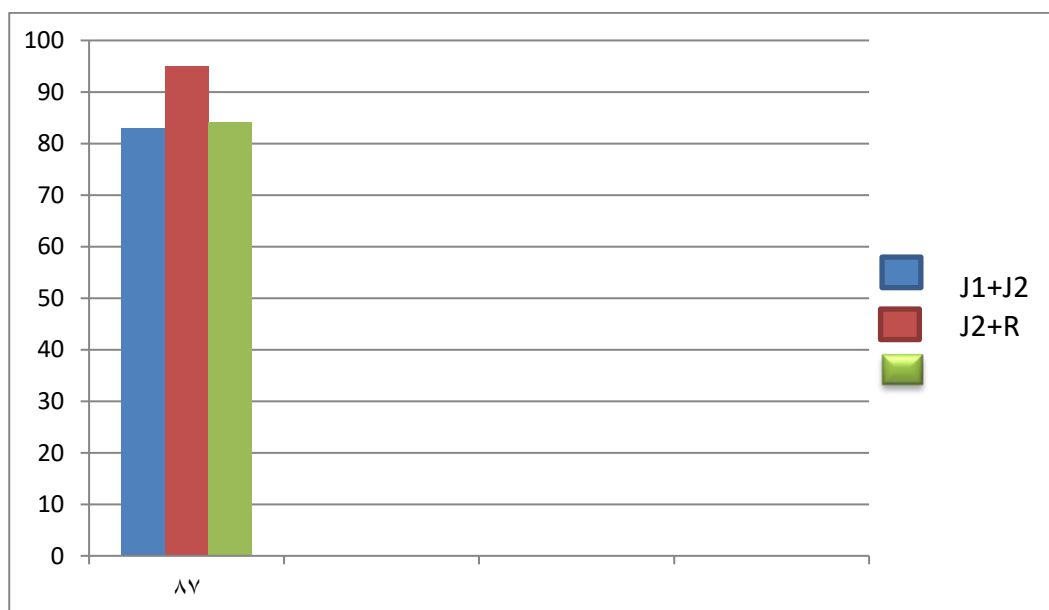


Diagram No. (1) Graph Table with Stability Coefficient

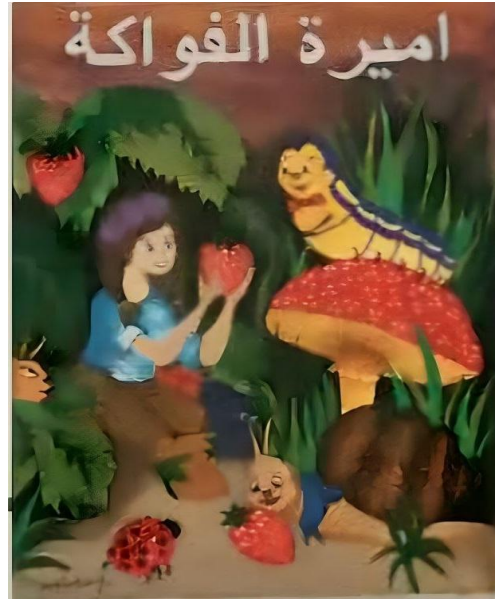
Number of times agreed

Stability factor = $\frac{\text{Number of times agreed}}{\text{Number of disagreements} + \text{Number of times agreed}} \times 100$

Number of disagreements + Number of times agreed

Model No. (1)

- **Cover Name:** Princess of Fruits.
- **Material:** Canvas paper (A3).
- **Colors:** Acrylic



Analysis: The design is a children's story cover consisting of several shapes that vary between human, animal, and plant, topped by the hypothetical story title in white. The student adopted a suitable style for the age group specified in the limits of the current research through the general composition of the cover design. The design showed a personification of the shapes, moving away from traditional shapes through unrealistic compositions by drawing animals and fruits in large sizes and large plant leaves. The purpose of this is to attract the attention of children. Here, a clear coherence emerges in the design idea and the shapes used and their relationship to the story cover title, which is (Princess of Fruits). The student was able to link the shape of the cover with its content to achieve harmony in the general composition of the design. Additionally, the movement of the girl holding the (strawberry) fruit, looking at its large size, as if she is talking to all the creatures of animal and plant in the forest in an unreal scene. Here, the designer appears to be trying to attract the attention of children in the specified age group to persuade them to acquire the story. As for the design space, the student was able to utilize it fully by simulating the shape and content to convey the design idea. The student also achieved the process of balance in the size of the shapes on both sides of the work. We notice the large mushroom plant opposite the size of the girl, down to the bottom of the design, there is a similarity in size between the strawberry fruit and a small animal, achieving balance in size. As for the dominance in color, the (red) used in the mushroom plant is balanced with two small shapes at the bottom of the design, which gives the design a comfortable color balance.

From what has been presented above, the design shows color and shape variations that are not similar, through the human, animal, and plant. With this combination of realism and symbolism, the objectives of the story cover were achieved to attract the specified age group through the student's design thinking by combining the design elements and the components of the idea of the cover.

Model No. (2)

- **Cover Name:** With knowledge we water our ideas.
- **Material:** Canvas paper (A3).
- **Colors:** Acrylic.



Analysis: The design is a children's story cover consisting of a girl's head, a book, and a pitcher, topped by the story title in black. In this design, the student relied on employing the girl's head with a group of plants above it to indicate watering. Here, the designer attempted to suggest that ideas are like plants, and watering them with water helps them grow, analogous to knowledge growing by watering it with information and ideas through reading. With this design, the element of attraction for the child was achieved, and curiosity was aroused in them to investigate the content of the picture, especially the age group specified in the research limits, which is (6-7) years, as it is related to science, reading, and developing ideas. We notice in the design above that central dominance has been achieved through the girl's head and the book, which is a quasi-pyramidal composition. Balance was achieved between the sizes of the book and the head due to their importance in the design subject because they are linked to science, where one feeds the other. As for the colors used, they

were mixed between warm and cool colors. The green color, which symbolizes growth and life, was used as a background for the story title, and this in itself is an indication of the relationship between the cover title and the design idea that symbolizes the growth of ideas. The blue color, which symbolizes eternity, was consistent with the content of the student's design thinking. As for the use of red, the student tried to link the color to the subject of the book, which seems to be a chemistry lesson through the image on the book's cover (candle, fire, and pitcher), so the red color symbolizes those intellectual connotations. Thus, the design expressed the child's need for the specified age group.

Model No. (3)

- **Cover Name:** The Farmer and the C
- **Material:** Canvas paper (A3).
- **Colors:** Acrylic.



Analysis: The design is a story cover that expresses a scene of a farmer holding a plowing tool with his small cow standing together on green surfaces and the blue sky above them. The story title is at the top in black. Here, the student presented her design idea for the story cover in an unrealistic way, where we notice the small size of the cow compared to the farmer's size. However, she linked a strong relationship between the shape and the content of the story title, which made the shapes suitable for the ages of the children specified in the research limits, which is the age group ranging from (4-7). It seems that the designer achieved the element of attraction for the young recipient through the farmer's readiness for work by standing and holding the plowing tool, which constitutes a motivation for children to love work. In this design, the element of asymmetrical balance was achieved, appearing in the two masses of the work, which creates a state of stability in the design. Additionally, the division of the cover into two halves, almost distributed between green and blue, achieved a comfortable balance for the viewer's eye. Here, we can see the

benefit of using the elements and foundations of design and applying them in a way that serves the work in its general form. As for the use of color, the student used cool colors between green and blue to denote life, growth, and goodness. Thus, the student achieved the required coherence between the idea, color, and the target age group, as it met the child's need through her design thinking related to the agricultural environment and work.

Model No. (4)

- **Cover Name:** I Love My Grandmother.
- **Material:** Canvas paper (A3).
- **Colors:** Acrylic.



Analysis: The design is a story cover that represents the grandmother and the little granddaughter in a scene of embracing, affection, and love. They are standing on a green area, and the clear blue sky appears behind them. The title is at the top, written in black and surrounded by a dark blue halo. Through the design, the student expressed the strong relationship between the granddaughter and her grandmother, which is a relationship of love and affection. She embodied this through the embracing movement between them and the simple and gentle smile on their faces, which indicates the extent of the child's attachment to her grandmother and how much emotional bonding the grandmother gives to the child. Thus, the design achieved compatibility between the shape and the content with the story title and suited the age group specified in the current research. As for the cover colors, the student chose the cool colors, blue and green, which denote purity and growth, which in turn increase and confirm the feelings of love and affection between the grandmother and the child. She achieved a prominent color balance for the cover background. She also balanced between the two masses. She dressed the large mass represented by the grandmother in a cool color, which is green, while the small mass represented by the child was dressed in red. With this

combination of realism and symbolism, the student reached her design thinking by using the shapes and elements of the design principles to achieve the research goal, which is visual amazement for children.

Results

١. Design thinking has a clear effect on the selected models (1-2-3-4) by placing those designs within the appropriate age group for the story, ranging between (4-7) years.
٢. Design thinking is not just colors placed on the cover surface but rather a mental state related to the foundations and elements of design and a broad understanding of the target group for the story cover design.
٣. Through the selected models (1-2-3-4), it is evident that cool colors were chosen in all those designs, varying between green and blue. This is a psychological symbolism that imparts a state of calm and tranquility to children.
٤. All selected models achieved the element of dominance, whether through blocks and their distribution methods or the color used in the design. This is what we observe in model numbers (1-2-3-4).

Conclusions

١. There is a fundamental relationship and link between design thinking and achieving the element of visual attraction for children and meeting their needs.
٢. Design thinking has a great impact on the level of cover design.
٣. The story cover is not just a decorated and beautiful picture; it is an expression of visual culture and refers to the content of the story, emphasizing the factor of attraction for the child.

Appendix No. (1)

Analysis Form

Dear Sir/Madam / Professor / Assistant Professor / Dr.

Kindly provide your valuable remarks regarding the validity of the questionnaire items attached to achieve the objectives of the research entitled:

(Design Thinking and Its Impact on the Design of Children's Story Covers Among Students of the Institute of Fine Arts)

With appreciation

Signature:

Academic Title:

Specialization:

Workplace:

No.	Items	Agree	Agree to Some Extent	Disagree
1	Do the selected models target the specified age group within the research limits (4–7 years)?			
2	The relationship between the title and the design in terms of form and content, and avoiding traditional shapes.			
3	Was the drawing technique used in cover design consistent with children's visual culture?			
4	Extent of employing design principles and elements in terms of (color, dominance, balance).			
5	Was the design thinking responsive to the child's needs when designing the cover?			
6	Did the model design create a state of interaction and attraction between the child and the cover design concept?			

Experts' Names:

1. Assistant. Prof.Dr. Ali Mohammed Shwai / College of Applied Arts / Middle Technical University / Design
- 2 Assistant. Prof.Dr.Nidal Kazem Matar / College of Applied Arts / Middle Technical University / Art Education
3. Assistant. Prof.Dr. Ghazi Issa Majid / College of Applied Arts / Middle Technical University / Art Education

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