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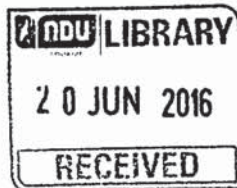جامعة سـيدة
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Faculty of Architecture, Art and Design

Towards Connecting with Children:

Developing Creative Arabic Illustration Talents in Lebanon

A thesis

submitted in partial fulfillment

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By

Aline Grace Bezirjian

Faculty of Architecture, Art and Design

Notre Dame University – Louaize

Lebanon

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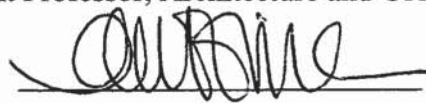Lebanon

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Thesis Committee:

Thesis Advisor: _____

Christine Mady, PhD

Assistant Professor, Architecture and Urban Planning & Design

First Reader: _____

Antoine Abi Aad, PhD

Lecturer – Coordinator, Advertising and Graphic Design

Second Reader: _____

Bassel Akar, PhD

Assistant Professor, Humanities; Director of the Center for Applied
Research, Education

Faculty of Architecture, Art, and Design

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ABSTRACT

This research presents the problem of Arabic illustrated picture books in the Lebanese market that need to be enhanced in relation to the design and illustration aspects for children aged five to seven.. The aim of this thesis is to increase readership and learning in the Arabic language among children in Lebanon and guide illustrators in enhancing the quality of their picture book illustrations.

Several aspects appropriate for the development of picture book illustration guidelines for children were reviewed including communication through visual language, the contemporary approach of including end-users in the design process, the influence of illustrations on young readers, and children's preferences related to picture books themes. Eleven picture books from the Lebanese market were selected and assessed based on picture book illustration design elements and their characteristics. Then, 180 children were interviewed to test their preferences of picture book illustration design elements and themes. Interviews based on the literature review were also conducted with Lebanese illustrators, publishers, and professors in children's education of Arabic literature to study the current state of Arabic picture books in Lebanon. The guidelines used to redesign an Arabic picture book were formulated based on the conceptual framework that emerged from the literature review, and the analysed empirical data.

Analysis of the interviews shows that children find large or medium-sized books more appealing than small ones, and that they prefer humorous cartoons as illustrations. Children also prefer vibrant colors in picture books rather than somber ones, as well as a cool color palette. Regarding typography, fonts with long ascender/descenders and

sharp/angular counters rated higher than fonts with short ascenders/ descenders and rounded counters. The significant implication of this research is increasing the readership and learning in the Arabic language among children in Lebanon, specifically the age group of five to seven years, and guide illustrators in enhancing the quality of their picture book illustration

1. INTRODUCTION

1.1 General Overview

Illustration design is a profession within the realm of visual communication that requires a high level of conceptual and technical skills and is underpinned by innovative thinking and entrepreneurial abilities (Blaiklock, 2010). Hardt (2014: 4) explains that to design is to "devise courses of action aimed at changing existing situations." This research focuses on the illustration design of independent Arabic picture books, that is, books that children choose to read on their own for both pleasure and for learning. In the context of picture book illustrations, illustrators have the potential to affect or change children's perceptions of life and their surrounding environment within complex societies (Archibald and Young, 2010). Besides the main function of motivating children to read or to read better, to decode words and comprehend sentences, illustrations help children by supporting their understanding, widening their imagination, and developing their mental capacity rendering picture books more inviting and strengthening children's reading habits (Elster and Simons, 1985). Therefore, illustrators play a vital role in connecting children with books.

In the Lebanese context, and in order to encourage children to read more in the Arabic language, illustrators should strive to design Arabic independent picture books for children. Most Arabic picture books in Lebanon are translated from foreign languages into modern standard Arabic (Idriss, 2013) and do not entice children to read them (Sharafeddine, 2013). Arabic literary translator Faehndrich (2014) and the specialist in Arabic typography Huda Smitshuijzen Abi Fares (2009) both stated that the books of

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authors of Arabic literature are judged solely on the basis of the content and statements in their books and not according to aesthetic criteria (Smitshuijzen Abi Fares, 2009; Ghersetti and Metcalfe, 2012). Therefore, a solution to this problem can focus on Arabic picture book design to make them more appealing and to increase their readership. Furthermore, designing for and with children who read Arabic picture books in Lebanon is the approach followed in this research as it will support illustrators in understanding children's perspectives. This approach is also called participatory or user-centered design. Gagnon and Côté (2014) explain empathic design which is a recent user-centered approach where information on future users is collected to generate insights for designers after relating to them and understanding their perspectives. Thus, designs that are relevant and useful to the users are developed.

For illustrators to relate to children in Lebanon and to understand their reading needs, it is important to highlight that the cover is the first encounter of the picture book that the child sees (Ho and Wang, 2012). The cover includes all the design elements of the picture book and communicates a mood and may give children signals about the theme of the story (Sipe, 2001). Therefore, the aesthetic factor of the picture book is the first element that attracts the attention of children and affects their decision on whether to read it or not. Sipe (2001), Russell (2009), and Ho and Wang (2012) explain that line, shape, color, texture, composition, perspective, page layout and typography constitute the picture book design elements that work together to create a unified artistic whole. So how does the choice of these design elements impact children's readership?

1.2 Research Significance and Scope

This research guides illustrators in integrating children aged five to seven while designing picture books to make the design process user-centered and to meet children's reading needs in Arabic in Lebanon. The cognitive, language and social development of children are the three factors considered in choosing the appropriate age bracket. Between the ages of five and seven, children first start learning to read until they become independent readers who read both for learning and pleasure (Oxford Owl, 2014). Also, children belonging to this age group correspond to Piaget's (2000) in Yu (2007: 40) second stage of cognitive behavior theory where they learn to use language, they become adept to using symbols, and are able to represent and express information. Burton (2006) explains that Piaget also identifies children in this stage with having difficulties understanding the world from any other perspective than their own and can be distinctly egocentric. Moreover, since this thesis adopts the user-centered approach, it explains the preferences of children in Lebanon as end-users of the final product in relation to styles and themes of illustration.

Within the scope of this thesis, the issue of children reading printed books in general as opposed to e-books is excluded because according to Tohme (2014), the process of illustrating e-books is different from illustrating printed books. Hence, two different sets of guidelines will need to be established for each. This research focuses only on the independent Arabic picture books that involve the work of illustrators rather than educational books. Regarding illustration design elements, the shape of the book's pages as well as special effects such as pop-ups and movables, embossment of shapes and glitter effect are not included in the scope of this thesis. Moreover, studying picture book

shape, weight, and special effects like spot U.V. which gives a glossy effect might lead to additional guidelines. Also excluded from this research are children having special medical needs or learning disabilities including the following categories: autism, dyslexia, total or partial visual impairment, attention-deficit, and speech or language impairment. Regarding future research, this thesis suggests research focusing on the effect of e-books on printed books' readership on children in Lebanon and children's willingness to give up reading printed books.

1.3 Research Aim and Objectives

The aim of this study is to increase the readership and learning in the Arabic language among children in Lebanon, specifically the age group of five to seven years, and guide illustrators in enhancing the quality of their picture book illustrations.

The research question is: *How can illustrators in Lebanon incorporate the needs of children aged five to seven to make independent Arabic picture books more appealing to them?*

Based on this research question, the objectives of this research are to:
- investigate the current children's picture book illustration design practice and principles

- establish criteria to evaluate Arabic picture book illustrations and test them with their end-users

- explore children's preferences of illustrated picture book themes and design elements

- establish a set of guidelines for illustrators, to enhance the quality of Arabic illustrated picture books in Lebanon

- redesign an Arabic illustrated picture book based on the proposed guidelines

1.4 Thesis Structure

This thesis comprises six chapters including the introductory chapter. Chapter 2 is the literature review, which establishes the framework for this study. It describes how children construct meaning of perceived visual elements. Moreover, it addresses empathic design, which is embedded in participatory or user-centered design for integrating children in the picture book illustration design process in Lebanon. After highlighting the problems related to the Arabic children's books publishing market, this chapter explores various picture book elements in terms of their function and the conveyed meanings in order to establish criteria in choosing the picture books that will be used in the empirical work, thus responding to the second objective which is to use these criteria to evaluate Arabic picture book illustrations and test them with their end-users. Chapter 3 on research methodology, reviews previous methodologies used in similar studies to provide a basis to adopt a suitable methodology for this research. This is followed by an explanation of the empirical work which entails interviewing four different stakeholders including children. Methodological limitations are also presented in this chapter. Chapter 4 presents the analysis of the empirical data, which are consequently used to set guidelines for illustrations. Chapter 5 then examines how to enhance the quality of Arabic illustrated picture books in Lebanon. Chapter 6 is the concluding chapter and provides a review of the objectives of the study and highlights its findings. Recommendations for future investigation and application are then formulated through insight gained from this research.

2. LITERATURE REVIEW

2.1 Introduction

As a basis for this research, there is the need to formulate an understanding of several aspects including communication through visual language, the contemporary approach of including end-users in the design process, the influence of illustrations on young readers, and children's preferences related to picture books themes. These aspects are inherent to the appropriate development of picture book illustration guidelines for children between ages five and seven. Muhanna (2009) and Anati (2013) explain that children in Lebanon face difficulties in finding and reading Arabic picture books that exhibit creativity and reflect and encourage their interests due to authors' and illustrators' failure in addressing them. Based on the Lebanese publisher's union survey, the total number of Arabic children's book publishers in Lebanon is 13 publishers out of 200[1], which means that the children's book publishing market in Lebanon is relatively small. Most of their published books are translated from foreign languages[2]. Children's literature in the Arab world is mainly based on unscreened publishing and translating, and publishers in general are unacquainted with basic characteristics of children's literature (Ghandour 2013).

This chapter first explains the notion of how children construct meaning of perceived visual elements. Then, literature on the empathic design method is reviewed, which is embedded in the participatory design approach for integrating children in the picture book design process. Furthermore, the relation of picture book illustration design and empathic design is discussed through the study of aesthetics, semantics and function in

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[1] http://www.publisherunionlb.com, last accessed on 28-10-2014

[2] http://www.asala-publishers.com, last accessed on 8-5-2014

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empathic design. These three studies are highlighted in particular since empathic design aims to understand the user's aesthetic experience and sensorial feelings towards an object related to its use, the activities that it allows, the cultural or social models, the individual experiences and values, and the emotions that are generated (Gagnon and Côté, 2014). Finally, children's preference of one picture book theme over the other is explained according to the literature review findings. Reviewing these issues provides a conceptual framework for the research, and calls for considering the empathic design approach to deduce picture book illustration guidelines. It entails the participation of Lebanese children aged five to seven in order to examine the end product though their eyes and make books more aesthetically appealing to these children. This is done after exploring the levels of meanings in picture books perceived by children, which will aid illustrators in choosing appropriate visualizing techniques. After studying each element of picture book illustration, a set of criteria for selecting Arabic picture books is established that will be used as tools to test children's responses and preferences.

2.2 How Children Construct Meanings of Perceived Visual Elements

The levels of meaning imply two ways of exchanging meaning: the first is represented by an author of a document, and the second is extracted by a reader of such document (Yu, 2007). According to semiotics research, meaning operates on a hierarchy or levels (Moriaty, 1995). Meaning exists in levels that are often understood differently in various disciplines (Yu, 2007). Learning about the levels of meaning perceived by children provides illustrators with a basis to understand depths of meaning that exist in picture books and aids them in choosing suitable attributes such as shape, size or color for the illustrations in order to effectively communicate the desired message to children.

Therefore, studying meanings conveyed by picture book illustrations should be taken into consideration by Lebanese illustrators for the purpose of effective communication and to make the picture books appealing to children. Yu (2007) explains that Erwin Panofsky's (1982) theory of meaning in art and Allan Paivio's (1971) dual coding theory in cognition are two long established theories with broad applications. Art historian Panofsky (1982 in Yu, 2007: 64), breaks down three levels of meaning in his analysis of works of art including picture book illustrations in a cultural perspective: *pre-iconography* (the identification of facts and compositional basics), *iconography* (the interpretation from familiarity with a certain culture or custom), and *iconology* (the underlying principles that express the characteristics of a certain time and space). Jörgensen (2003: 119) classified image attributes into perceptual (daily experience), interpretive (specific culture), and reactive (perception), and found that different types of image attributes show levels of meaning. In order to validate the above two theories of meaning,

In order to validate the above theories of meaning, Yu (2007) conducted a study on children between ages five and seven and showed how they often categorize images based on attributes such as shape, size, and color, and their rationales differ from those of adults. For example, roundness is a similarity among the moon, dots, coin, circle, and type of cereal. The perception of these visual qualities provides "meanings and understandings to build the knowledge, belief, and attitudes of a child" (Russell, 1956:71). The story types, concepts, words, reception (mental representation), familiarity (cultural rules and previous experience), and age groups are factors that influence children to construct meaning when they read picture books and view images (Tolchinsky, 2004: 46).

2.3 Designing for and with Children

Including end-users in design activities is an approach applied in user-centered and participatory design methods or in product semantics. This results in more efficient and more aesthetically appealing products (Bowen, 2010). The goal of the participatory approach is not only to empirically understand the activity, but also to "simultaneously envision, shape, and transcend it in ways the users find to be positive." (Spinuzzi, 2005:164) Thus, in participatory design, participants' involvement is not just a means of validation but an essential part of the design process.

Culén et al. (2014) include children in all the stages of the 3D book design process, and focus on product semantics, which is essential to making products eye-catching and reflecting a message that every child can interpret based on his/her personal experiences.

2.4 Aesthetics, Semiotics and Function in Empathic Design

Emphasizing users' influence in all stages of the design process similar to the project presented above by Culén et al. (2014) indicates the empathic design philosophy that is embedded in the user-centered and participatory approaches (Gagnon and Côté, 2014). Empathy can be described as the ability to understand what it feels like to be another person – what that person's situation is like from his/her own perspective (Wright & McCarthy, 2008 in Postma et al. 2012). Cope and Kalantzis (2011: 46) defined empathic design as "a design philosophy and attitude that addresses a design issue by looking at it through the eyes of a user". It helps researchers and designers to understand unique human traits that allow people to like, use, and want to live with the products they design (Dandavate et al., 1996 in Postma et al. 2012). So the role of a designer is more frequently that of mediator and facilitator who finds design solutions based on the users'

needs (Cope and Kalantzis, 2011). By contrast, Thomas and McDonagh (2013) and Gagnon and Côté (2014) consider user-centered design to be primarily concerned with the functional usage of a product and little with the overall experience brought by it like empathic design seeks to accomplish. Empathic design is significant in this research because enhancing the quality of the picture book illustrations does not only aim to aid children to read, but also boosts the overall experience of reading.

Dagmar (2007:2) discusses product innovation from the perspective of design semantics basing his investigation on the Offenbach approach, "the theory of product language". Dagmar (2007: 3) distinguishes between 'aesthetic functions' which include the language of the design concept in terms of shape, color, texture, and material; 'indication functions' referring to the nature of a product; and 'symbol functions' associated with objects in the imagination of the user. Gagnon and Côté (2014) explain that empathic design aims at understanding the user's aesthetic experience and clarify that aesthetic does only refer to the object's appearance, but also to the user's sensorial feelings towards the environment. Piaget (1960) states that social factors are relevant to children's internalization process of knowledge (Wadworth, 1996). Culture shapes individuals' worldview and interpretations of images, including perceptual habits and daily experience with certain beliefs and traditions (Messaris, 1994). It is important for illustrators to reflect the culture and environment that the Lebanese children aged five to seven live in. Putting the experiences lived by these children and their feelings in the design process is essential thus, eliciting certain beliefs, feelings, thoughts and opinions reflecting the image of the country and society in children's minds. Insight through the

aesthetic experience of end-users is essential in developing the empathic abilities of designers and illustrators. Kazmierczak (2001) discusses how the theory of semiotics can be a powerful pedagogical tool for illustrators as a method of communication, which can be founded on experiential-cognitive foundation and reasoning in addition to the aesthetic expression. It thus results in a functional, appealing illustrated picture book, which is able to convey the desired message. An example of this approach is the "Book Nook" project designed in the Brooklyn Children's Museum, which focused on creating a new experience related to 3D books (Culén et al., 2014). The utilized empathic design framework is based on children's emotional needs, desires, and preferences for themes and styles (Culén et al., 2014). The empathic design process resulted in a design that shifts power of communication in favor of the weak group, which entails the children who did not really have a voice until they were asked to participate and share their points of view (Bratteteig & Wagner, 2014). Thus, the design of the "Book Nook" is participatory in this sense, including design "for, by and with the users" (Culén et al., 2014:110).

2.5 Illustration Design and Picture Book Definition

An understanding of the definition of illustration design and picture book is needed to set guidelines for enhancing the quality of Arabic picture book illustrations for children between ages five and seven, in accordance with the role of empathic design as being functional, aesthetic, and symbolic.

Illustration design has evolved into a modern multidisciplinary profession, which produces visual artifacts that have commercial and cultural impacts (Blaiklock, 2010). Furthermore, illustration designers provide innovative solutions to complex problems

through visual language, the use of typography and imagery (Blaiklock, 2010; Swan, 2002).

A picture book is defined by the Randolph Caldecott Award Association[3] (in Yu, 2007: 4), as a work of art that is characterized by a balance of illustrations and words, dominated by illustrations and colors, which provides a visual and verbal experience for children. Picture books demonstrate sophisticated visual features and communicate information, feelings, and meanings through an integration of verbal and visual features (Booker, 2012). Yu (2007) describes a picture book as a work of art having a depth of aesthetic values that help children to gain visual skills and learn to understand the real world.

> "The story, the succession of images, childlike qualities, and the relationship between text and illustrations distinguish picture books as a special genre for children" (Yu, 2007:26).

2.6 The Influence of Illustrations on Young Readers

Despite some concerns among some literacy educators (Harber, 1980 in Elster & Simons, 1985) that illustrations may distract children's attention from content and that children's attention must be divided between looking at an illustration and getting meaning from the words, the contributions of illustrations to children's overall development are greater than their possible risk of distraction (Jalongo, 2004; Valentine, 2008). This research considers illustrations as a necessary component in picture books and not as a distraction, and the following key ideas explain the important roles that

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[3] the association of the most prestigious American children's book awards

illustrations play in children's language, literacy development and their overall mental growth development. These could provide Lebanese illustrators with an insight on the importance of improving the standards of Arabic children's picture books in terms of the visual quality of illustrations. Illustrations in picture books lure children to read and interact with text by motivating them to find hidden objects, characters, or names or to predict what is going to happen next in the story (Jalongo, 2004). The more the story is related to children's personal life experiences, the more positive impact it has on both their motivation to read and their comprehension (Valentine, 2008). Also, the combination of captivating text, art, and themes found in picture books feeds children ideas, stimulates their imagination and curiosity, and provides them with rich vocabulary (Jalongo, 2004).

2.7 Children's Preferences Related to Picture Book Themes

The successful use of a child-centered approach in a design partly depends on an understanding of children's preferences (Haynes, 1992; Hoffman et al., 2012). Children's preferences related to picture book illustration themes should be considered as part of the design process and particularly in Lebanon's case. Sturm (2003) indicated that picture book preferences of children between ages five and seven were centered on animals, science, sports, and literature (songs, stories, myths, and proverbs). Moreover, Mohr (2006) studied children aged six and seven who were asked to choose picture books that they would like to have to keep, and concluded that the majority of the children preferred informational[4] books, especially animal books. As an explanation to this preference, it is

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[4] Factual presentations of documented knowledge (Routman, 2005)

important to note that anthropomorphism, animal characters as people, is a device that has been used over time across cultures to add a degree of emotional distance for the reader, writer, speaker, and illustrator alike, when the story message is very powerful, personal, and painful (Burke and Copenhaver, 2004).

Hoffman et al. (2012) conducted a study to assess children's reading interests and preferences of primary school pupils, and presented a list of key findings explaining that they could be considered beneficial to integration in picture book design, in order to motivate children to read since they were consistent with previously conducted research:

- Children preferred fiction to non-fiction books.

- Children preferred books with attractive physical features, such as font, letter size or the number of words or pages. The second most common reason to prefer a book was the presence of illustrations.

- Children preferred books, which their teachers and librarians read aloud previously, and stated them as their favorite.

- Children preferred humor and mystery to scary or horror stories, and a slight preference for humor over mystery.

In addition, Khattar (2009), found that love for family members was the only related subject that was integrated in children's picture books in Lebanon, and highlighted the importance of dealing with topics that worry children as well (The Lebanese Association of Women Researchers, 2009). Manklw and Strasser (2013) refer to these topics as tender

topics and they include bullying, family diversity, homelessness, and disabilities. Furthermore, Manklw and Strasser (2013) argue that tender topics should not be viewed as problems, but rather as subjects that are part of children's everyday lives. Consequently, Manklw and Strasser (2013) suggest including them in picture books, as they give children the opportunity to meet characters or issues that they have yet to meet in real life and with whom they have much in common.

2.8 Elements of Illustration Design for Picture Books

There are a number of factors forming an obstacle to the development of innovative children's books such as its literary and artistic quality, the lack of analytical studies, the absence of contemporary issues (such as gender, conflict, and environmental issues), and the lack of opportunities to exchange different experiences on the local, regional or international levels (The Lebanese Association of Women Researchers, 2009).

Focusing on the artistic quality factor, which is the focus of this research, it is important to describe every picture book element in terms of its function and the conveyed meanings in order to establish criteria in choosing the Arabic picture books that will be used in the empirical work. Horn's taxonomy of visual features includes elements which are directly related to picture book design; these include: the Gestalt theory, semantic attributes, cartoon conventions and compositional distinction principles (Horn 1998 in Patel et al. 2007: 66). Kazmierczak (2001) explains that Gestalt theory includes visual features that are used to convey the spatial grouping of elements. For example, the visual feature 'common regions' may be used in picture book illustrations to convey the concept of family as a collection of people enclosed by a circle given the tendency to

perceive elements enclosed by a line as a single unit (Kazmierczak, 2001: 8). Patel et al. (2007) list the visual features included in the cartoon conventions' principle also used in picture book illustrations; these include: emotion, motion, physical phenomena, speech balloons, embodied experience, cartoon metaphors and arrows, which pertain to the use of simplified imagery from cartoon culture. For example, the 'cartoon metaphor' of a heart may be used to depict the concept of love (Patel et al., 2007: 66). The compositional distinctions principle includes the features symmetry, asymmetry, repetition, singularity, juxtaposition and exaggeration, which pertain to the graphic layout and arrangement of visual elements within an image (Horn, 2001 in Patel et al., 2007). For instance, the 'comparative concept'—biggest— may be illustrated using a juxtaposition of two or more items (Horn, 2001in Patel et al. 2007: 66).

An example of an illustrated picture book that is culturally bound is the Arabic picture book *Fi Madinati Harb* (Sharafeddine, 2008), which talks about children who suffered during the Lebanese civil war and is accompanied by illustrations with the gloomy sepia color on white background to reflect the sadness of the story. Another picture book is *The Eid Shoes* (Sharafeddine, 2010), which introduces the traditions and habits of celebrating *Eid* in Arab cultures. Next, the elements of picture book illustration design will be discussed in order to arrive at guidelines on illustrating for children between ages five and seven in Lebanon.

Picture books are unified artistic wholes in which text and pictures, covers and endpages, and the details of design work together to provide an aesthetically satisfying experience for children (Sipe 2001). *Color, line, shape,* and *texture* have been traditionally considered to be the elements of visual design (Richard, 1969 in Sipe, 2001:

28). In addition to these elements, *space, composition, artistic style, medium used, page layout, perspective, typography* and *text* are also elements of illustration design used for picture books. These elements reflect the illustrator's language used to visually communicate meaning.

2.8.1 Cover

All the elements of the picture book which children see before arriving at the text opening must communicate a mood and give them signals about the theme of the story (Sipe, 2001). Book covers serve as first impressions of stories and they provide access to information (Yu, 2007). Kearns (2001 in Yu 2007) explains that children use visual cues like book jackets and cover pictures to explore relevant information. Lacy (1986: 7) describes the cover of a picture book as "a poster that reflects mood, text, and artistic style in a book". Lewis (1989 in Yu, 2007) generalizes that a child rejects or accepts a book by a quick examination of the cover and illustrations. Sipe (2001) adds that the storyline may also begin with the cover, the endpages or the title page. In addition, the front and back covers should be connected to each other through illustrations or typography to create a unified book cover (Sipe, 2001).

2.8.2 Endpages

Sipe and McGuire (2006) describe endpages as the stage curtains for a play, which are the first thing the audience sees when the play starts, as well as the last thing when the play is over. Moreover, Sipe and McGuire (2006) explain that endpages may be printed

in a color which is chosen to set the mood for the story. They are also designed as a stylized or repeated pattern with motifs important to the story (Sipe and McGuire, 2006).

2.8.3 Line

Lines can vary greatly and are perhaps the most powerful expressive tool an illustrator can use (Sipe, 2008). Illustrators must use lines to define objects, suggest movement and distance, and depict feelings (Russell, 2009). They can also use different line thicknesses to distinguish different line meanings (Taylor, 2003).

2.8.4 Color

Illustrators need to consider two main factors while choosing illustration colors: the reflected mood and the functional role regarding legibility. The psychological and physiological aspects of color are significant when designing picture book illustrations. Elliot and Maier (2007) explain that color can carry specific meaning and information and it is not just about aesthetics. Lebanese illustrators can reflect their culture by associating colors with certain meaning such as red green with the colors of the Lebanese flag. Moreover, Pett and Wilson (1996) conducted a study to help designers and illustrators choose colors that are consistent with the communicated message and that are appropriate for the intended audience. They indicated that using bright warm colors such as red and yellow, is appropriate for illustrations intended for young children (Pett and Wilson, 1996). Illustrators commonly use colors to induce emotional effects; hence, to show a change in mood, changes in color is suggested (Sipe, 2008). Illustrators may use the lack of color technique to heighten the surreal quality of a story by the lack of color (Sipe, 2008). Light and shadow are used to both manipulate attention and to suggest

symbolic meaning (Pett and Wilson, 1996). Monochromatic designs, containing various shades and tints of one hue, are most effective for communicating simple messages (Fehrman and Fehrman, 2004). Also, to add depth, complexity, and additional meaning to design, multiple-color combinations should be considered (Rider, 2009). Children tend to focus on one white object or bright colored objects in a field of dull colors (Nodelman, 2001). Concerning the functional role of the color and legibility, Ray (2010) found the ranking of background colors from best to worst to be white, yellow, green, red and blue. Similarly, Arizpe and Styles (2003) reported that lettering is more legible with a neutral background than with colored backgrounds. However, Salisbury and Styles (2012) indicated that brightness and contrast are the most critical factors in legibility and that the effect of color is not significant assuming proper lettering size and projection standards are met. Moreover, the overall results in the study conducted by Prett and Wilson (1996) show that cool colors rate higher than warm colors.

2.8.5 Shape

Perceptions of shape are based on learned meanings, which the mind constantly projects (Leymarie, 2012). Leymarie (2012) explains that without these meanings, there is no shape to perceive and hence one may remain blind to the nature of objects one is exposed to. Shapes are a powerful tool of communication and convey different moods and meanings (Niranjan and Ahmed (2014). For example, circular shapes depict tenderness, love, friendship, care, support, protection, and affection (Niranjan and Ahmed, 2014). Ekstrom (2013: 6) explains that shapes in picture books can be evaluated for their simplicity or complexity, their rigidity (as in geometric shapes) or suppleness (as in organic shapes), and their size (which refers to the level of importance compared to the

other shapes on the page). Furthermore, Sipe (2008) suggests that while horizontal shapes give us a sense of stability and calmness, vertical shapes depict excitement and suggest energy. Diagonal shapes are the most dynamic of all, evoking a sense of motion or tension, and pointed shapes create more anxiety and fear because of their association with sharp objects, while rounded, curved shapes make one feel more comfortable and safe (Rigdon, 2008).

In addition, Russell (2009) talks about the importance of the layout of the shapes on the page. While shape placement in the upper half of a picture implies freedom, happiness, triumph, or spirituality, its placement in the bottom half is a sign of greater pictorial weight and may also mean more threat or sadness (Russell, 2009). Placement at the center of the page is associated with greater importance, just as it is in the theater (Galagher and Muir, 2002). Also, the larger the object in a picture, the stronger it feels to the reader (Rigdon, 2008). The number of shapes determines how busy the illustration appears (Fussell, 2001). Therefore, the illustrator has the ability to lead the reader's eye around the illustration from shape to shape through the overall arrangement of shapes and their colors through a well-composed illustration (Chen and Chang, 2008). This is how shape works together with line and color to depict a certain mood. For example, a heart drawn using rounded corners and colored in red depicts tenderness and love.

2.8.6 Texture

Texture appeals to the sense of touch, sight and hearing and thus the function of texture in the overall picture book illustration design is key (Rigdon, 2008). Less realistic drawing styles may make use of texture to enrich the visual experience and to stimulate

the child's imagination. Niranjan and Ahmed (2014) explain that since rough textures have more contrast than smooth ones, they are seen as more dynamic, emotionally active, and as having more depth.

So, texture works together with the elements *line*, color and *shape* to determine style, add depth and spark the child's imagination.

2.8.7 Space and Page Layout

Russell (2009) describes *space* as being what draws children's attention to objects on the page. The author (Russell, 2009) explains that while the lack of open space on a page may contribute to a claustrophobic, uneasy feeling, the generous use of space suggests quiet serenity or in some cases emptiness and loneliness. Space can also create the illusion of distance (Sipe, 2008). *Page layout* refers to the placement of the pictures and the text on the page (Nodelman, 1988; 2001). It is central to keep line lengths short, and to avoid putting too much text on a page to design a well-balanced page layout; dense blocks of type can be very intimidating to children (Woods et al. 2005). When setting more than one paragraph on a page, using line-spaces instead of indents need to be considered in order to give the text and the reader a visual break (Strizver, 2013). Russell (2009) clarifies that picture books that are tall and narrow usually focus on character and diminish the setting. Additionally, medium-sized books are considered more complex, whereas small books that are considered easy to handle and large books that are considered as eye-catching are designed for children aged three and thirteen (Pozzo, 2014). Hence, space and page layout of an illustrated picture book is not a random

process, but rather a carefully conceived plan by illustrators that carries out the overall intent of the book in coordination with line, color, shape and texture.

2.8.8 Composition

Certain arrangements of illustrations that are combined by the illustrator with what is and what is not shown encourage children to construct meaning (Read, 2013). Children create a personal association with the book as they fill in the gaps that are deliberately left for them (Read, 2013). In an example where Max in *Where the Wild Things Are* (Sendak, 2009: 10) says "I'll eat you up!" and then he was sent to bed without supper, the text and illustrations do not tell children exactly what his mom said to him (Read, 2013). Thus, Read (2013) explains that it is up to children to imagine the words his mom said to him, helping them create personal associations with the book as well as a complete an unforgettable picture book experience. Therefore, it is important for the illustrator to consider focusing on certain aspects of composition such as proportion, balance, harmony, and disharmony within the various illustration elements to produce altogether a visual play.

2.8.9 Visual Perspective

Perspective refers to the angle from which the viewer sees the object on the page (Salisbury and Styles, 2012). Illustrators may make the viewer think about specific things in specific ways by illustrating events from a child's perspective, which will make the picture book seem more appealing to the child. The closer the child appears to be to the action, the more engaged he/ she is likely to be (Gallagher and Muir, 2002). Most picture

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books use middle shots[5] and give few close-ups and panoramic views (Nikolajeva and Scott, 2001). Thus, not only do illustrators need to choose the appropriate perspective relevant to the text, but they need to illustrate events from the child's perspective.

2.8.10 Style

Sipe (2008) explains that while there is a wide variety of artistic styles in picture books, an illustrator's work rarely fits into one single style, and merging different styles is applied. Therefore, it is preferable to use a mix of styles that is appropriate to the subject or theme of the picture book. For instance, a highly colored and clearly outlined style of illustrations conflicts with a dream-like text with its evoked memories; hence, a less naturalistic style in either muted colors or black and white would be more suitable for this kind of text (Gallagher and Muir, 2002). Similar to *perspective*, illustrators also need to choose the appropriate style relevant to the text while using a mix of styles.

2.8.11 Drawing Media

Russell (2009) explains that each artistic medium produces different effects and a combination may also be used as long as it is appropriate to the text. For instance, silver tones of gray conté crayons are appropriate for a surrealistic story and the translucent quality of watercolor is appropriate to create the impression of looking through stained glass windows (Sipe, 2008). Consequently, medium relates to the elements *line, color, shape* and *texture*, working together to depict the desired mood, and illustrators should ensure that their combination is suitable to the story's text and mood.

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[5] Shows some part of the subject in more detail while still giving an impression of the whole subject., http://www.mediacollege.com/video/shots/, last accessed on 12-04-2015

2.8.12 Typography and Text

In the context of picture book illustration, typography and text constitute part of the major design elements (Caglayan, 2009). However, it is important to understand the difference between these two elements (Caglayan, 2009). Typography not only serves as a medium of verbal narrative, but as a visual element and semiotic resource with its own meaning potentials as well (Serafini and Clausen, 2012). Text is defined as part of the storytelling elements of a picture book, communicating the author's story to children (Gill, 2007).

As part of the picture book illustration design process, illustrators need to address typography and text, which consist of studying readability and legibility, and semantics.

Legibility and readability with respect to children

Samara (2007) explains that different fonts are associated with different meanings because of their use in particular contexts and their association to natural shapes and forms. However, typographic and textual information in picture books could impair readability when the type setting is not well studied (Woods et. al, 2005; Caglayan, 2009; Strizver, 2013; Walker 2013). To avoid confusion, illustrators and graphic designers avoid using condensed or expanded typefaces, hairline or very bold weights, and overly stylized italics (Walker, 2013) (refer to Figures 1 to 3). Confusion can cause children to read slowly, struggle with pronunciation; it can also make the picture book seem less appealing (Strizver, 2013).

ABCDEFGHIJKLMNOPQRSTUVWXY

ZÀÅÉÎÕÜ&1234567890[$£.,.:]

ABCDEFGHIJKLMNOP
QRSTUVWXYZÀÅÉÎÕØ
abcdefghijklmnopqrstuv
wxyzàåéî&123456789
0123456789O[$£€.,!?]

Figure 1. Condensed and Expanded Fonts [6]

ABCDEFGHIJKLMNOP
QRSTUVWXYZÀÅÉÎÕ
abcdefghijklmnopqrst
uvwxyzàå&12345678
901234567890($£€.,!?)

ABCDEFGHIJKLMNOP
QRSTUVWXYZÀÅÉÎÕ
abcdefghijklmnopqr
stuvwxyzàåéîõøü&1
234567890($£€.,!?)

Figure 2. Hairline and Bold Fonts [7]

Plasma Drip

BURNSDOWN

DISTANT GALAXY

Parry Hotter

Loki Cola

Figure 3. Overly Stylized Fonts [8]

[6] http://www.identifont.com, last accessed on 12-04-2015

[7] http://www.identifont.com, last accessed on 12-04-2015

[8] http://www.famefoundry, last accessed on 12-04-2015

Consequently, Walker (2005) suggests that typographic attributes, the typeface and the space between the letters, words and lines should be significant elements in making a book more appealing to children. Even though legibility and readability share common grounds, they have different meanings and measures (Ferrari and Short, 2002; Bringhurst, 1992); readability is the degree to which typographic forms and layouts are decipherable based on their appearance and is measured by duration of comprehension, measurements of eye movements and reading fatigue (Walker and Reynolds, 2005), while legibility is measured by certain type settings needed for the specific target audience such as design, size, weight, slant, color contrast, justification (alignment of text with a column between the right and left margins by stretching or compressing space between words), hyphenation, kerning (letter spacing), and leading (line spacing) (Ferrari and Short, 2002; Bringhurst, 1992). Figures 4 and 5 are two examples of legibility and readability. While looking at Figure 4, one notices a clear distinction between characters, relatively larger x-height (refer to Figure 6), rounded counters (the enclosed shapes within characters), and larger closed or open inner spaces. However, by looking at Figure 5 one is able to read words and phrases but sees the text as one big block on the page and cannot understand the type[9]. There are many factors that determine whether or not a text is readable, the most important being transparency; the most successful typography according to authors, designers and educators is the one that fades into the background of the reading experience (Scieszka, 1998; Kerper, 2002; Walker, 2005; Phinney and Colabucci, 2010).

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[9] http://www.vanseodesign.com/web-design/legible-readable-typography, last accessed on 18-11-2014

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque quam nisi, egestas ac hendrerit in, ultrices semper libero. Vestibulum sit amet ligula enim. Nam et urna urna. Sed nec condimentum nisi. Duis faucibus, nulla nec mollis mattis, mauris ipsum iaculis erat, vel dictum mi mauris placerat nibh. Vestibulum ullamcorper, augue eu rhoncus volutpat, mi augue accumsan augue, eu euismod dui neque vitae elit.

Figure 4. Readable Text[10]

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque quam nisi, egestas ac hendrerit in, ultrices semper libero. Vestibulum sit amet ligula enim. Nam et urna urna. Sed nec condimentum nisi. Duis faucibus, nulla nec mollis mattis, mauris ipsum iaculis erat, vel dictum mi mauris placerat nibh. Vestibulum ullamcorper, augue eu rhoncus volutpat, mi augue accumsan augue, eu euismod dui neque vitae elit.

Figure 5. Legible Text[11]
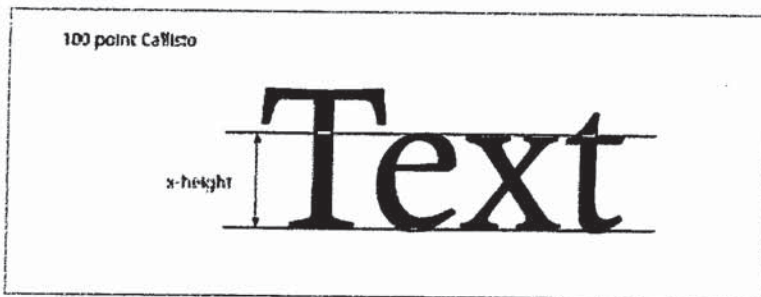
Figure 6. X-Height[12]

The approach of selecting typefaces that have generous ascenders and descenders, a clear distinction between characters that are confusing and no unusual characters, helps children to read more efficiently (Strizver, 2013). Typefaces with larger x-heights are generally easier to read than those with short x-heights, and this is especially true for children (Felici, 2003; Walker and Reynolds, 2005; Caglayan, 2009; Strizver, 2013). It is

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[10] http://www.vanseodesign.com/web-design/legible-readable-typography, last accessed on 18-11-2014

[11] http://www.vanseodesign.com/web-design/legible-readable-typography, last accessed on 18-11-2014

[12] http://www.thebookdesigner.com, last accessed on 12-04-2015

preferable to use counters that are rounded and open (refer to Figure 7) instead of sharp and angular (refer to Figure 8) to convey a simple, comic, warm and friendly mood (Walker and Reynolds, 2005; Caglayan, 2009; Strizver, 2013). Caglayan (2009) states that sans serif[13] fonts are used more often in picture books because they look friendlier than serif fonts. Moreover, a study conducted by Reynolds et al. (2006) indicated that children aged five to seven perceived more widely spaced lines as the easiest to read when the Latin alphabet is used, and for the more closely spaced versions as the most difficult. Headline or title type gives the illustrator the opportunity to be more playful in style, color and layout, since there are fewer words to read (Walker, 2013). Strizver (2013) suggests that keeping it light and fun is the key to keeping children interested and turning pages.
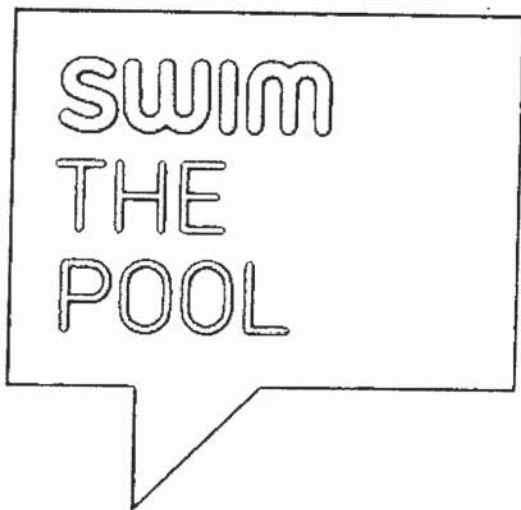
Figure 7. Sans serif font with rounded and open counters[14]

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[13] one of the short lines near the top and bottom of the long parts of some printed letters, http://www. merriam-webster.com/dictionary/serif, last accessed on 20-05-2015
[14] http://www.thebookdesigner.com, last accessed on 12-04-2015

vicious

Figure 8. Serif font with sharp and angular counters[15]

Figure 9 is an example of an Arabic typeface, which was used for the titles in the Lebanese children's magazine "Ahmad". It is a sans serif font with rounded and open counters with medium weight, and lacks any confusing character. Moreover, it is now used as well by Arabic children's book publisher, Dar Al Hadaek, for book cover titles and text font. The font, designed in three weights has a friendly look and feel, yet is classic in its overall design and is therefore easy to read for Arabic children[16]. Figure 10 shows Al-Adawy Arabic typeface, which is inspired by the Kufi (Arabic script primarily used in the Qur'an) and Maghribi (stylized form of Kufi) letterforms. It is suitable for children's books, board games, children's TV channels because of its playful, lively yet serious characteristics conveyed through the rounded curvy design[17]. Moreover, Figure 11 represents the bilingual Latin and Arabic "Jeem" typeface especially designed for print and on air usage for "Jeem" children's channel, which belongs to "Al-Jazeera", the pan Arab news satellite channel. This typeface is characterized by rounded shapes and short ascenders and descenders, which contradicts the statement that it is more appropriate to have relatively larger ascenders and descenders (Felici, 2003; Walker and Reynolds, 2005; Caglayan, 2009; Strizver, 2013). This suggests that further investigation

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[15] http://www.thebookdesigner.com, last accessed on 12-04-2015

[16] http://www.atrissi.com/more-arabic-type-design-projects, last accessed on 18-11-2014

[17] http://www.cargocollective.com/farahadawy/Al-Adawy-Typeface, last accessed on 18-11-2014

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on this issue could help in setting guidelines for children's picture books on readability of

Arabic type. Figures 12 and 13 show the application of "Droid Naskh" Arabic typeface

used in Arabic children's picture book by Dar Onboz publishing firm[18].

Figure 9. Ahmad Magazine Typeface[19]

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[18] http://www.29lt-fonts.com/retail.144.in_use, last accessed on 18-11-2014

[19] http://www.atrissi.com/more-arabic-type-design-projects, last accessed on 18-11-2014
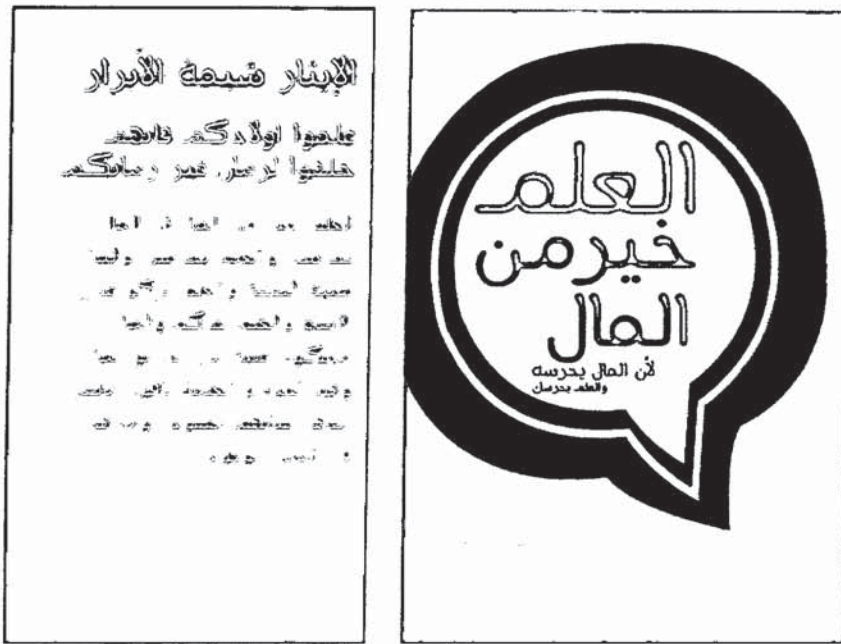
Figure 10. Al-Adawy Typeface[20]
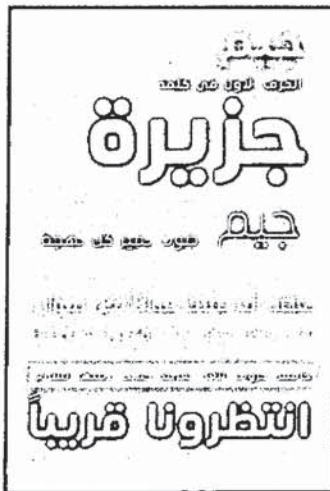
Figure 11. Bespoke Typeface for Jeem Television – Al Jazeera's Children Channel[21]

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[20] http://www.cargocollective.com/farahadawy/Al-Adawy-Typeface, last accessed on 18-11-2014

[21] http://www.atrissi.com/logo-and-typography-design-for-jeem-tv-the-new-branding-for-al-jazeera-children-channel/, last accessed on 18-11-2014
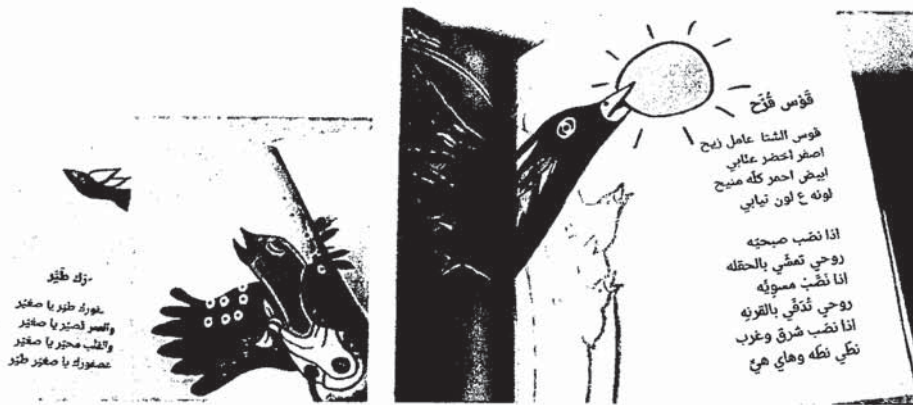
Figure 12. Droid Naskh Typeface[22]

Typography Semantics

Typographical elements need to be conceptualized as semiotic resources for authors, illustrators, publishers, book designers and readers to draw upon to realize textual or expressive meanings (van Leeuwen, 2006 in Serafini and Clausen, 2012). The typographical features to express a feeling or mood applicable to picture books include weight, color, size, slant, framing, formality, and flourishes (Machin, 2007). For example, the word *crazy* presented in bright green, blue, yellow, red, pink and orange colors stands out from the other words in a book title which are presented in one cool color (Serafini and Clausen, 2012). Thus, it is necessary for illustrators to study the choice of typography and text layout while working on the picture book illustration design, because not only do they reflect a certain mood, but they also affect children's reading ability and their choice on whether to read the book or not.

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[22] http://www.29lt-fonts.com/retail.144.in_use, last accessed on 18-11-2014

2.9 Summery/Synthesis

In order to develop picture book illustration guidelines for the Lebanese young readers between ages five and seven to stimulate their imagination and curiosity, it is important that illustrators include children of the mentioned age group in the design process through empathic design. It is also necessary to consider the aspects of aesthetics, semantics and function as part of the empathic design to make products eye-catching, effectively reflect a message, and enhance the overall experience of reading the book.

The conceptual framework of this research has provided information base for illustration design guidelines in terms of themes, typographic considerations, recommendation for color contrast, page layout and perspective strategies to organize shapes and illustrations to convey the author and illustrator's intended message in an efficient way to children. The following guidelines on the various picture book design elements are drawn based on the explanations discussed throughout this chapter:

Meaning

- Conveying meaning by including compositional distinctions such as symmetry, asymmetry, repetition, singularity, juxtaposition and exaggeration.
- Varying line weights to convey different symbolic meanings.
- Using light and shadow to capture attention and convey symbolic meanings.
- Ensuring that illustrations reinforce the text to maintain consistency of meanings.
- Integrating symbols, objects and colors representing a specific culture related to children.
- Adding hidden illustrated objects, characters or names to add to the story.

Color

- Creating contrast between type and background by using light text on dark background
- Changing color to change moods.

Theme

- Focusing more on humorous and mysterious rather than scary or horror stories, based on children's preferences.
- Considering non-fiction and informational books especially the ones centered on animals as per children's preferences.
- Relating the story's theme to children's personal life experiences.

Artistic Style and Medium

- Simplifying illustrations and depicting humor by using cartoon convention principles as a visual feature.
- Using texture in case realism in illustrations is intended as an artistic style.

Cover and Endpages

- Communicating a mood and giving children signals about the story's theme through the elements on the picture book cover and endpages.
- Connecting the front and back covers through illustrations or typography.
- Printing or designing endpages respectively in a color which is chosen to set the mood for the story, or as a stylized or repeated pattern with motifs important to the story.

Size of Book and Page Layout/Hierarchy

- Creating hierarchy of shapes by their placement on the page.
- Using large-sized picture books because they are more appealing to children than small or medium-sized books.
- Simplifying reading by keeping line lengths short.

Typography

- Avoiding condensed or expanded typefaces, hairline or very bold weights, and overly stylized italics to stay away from confusion.
- Selecting typefaces that have generous ascenders and descenders, clear distinction between characters and appropriate size, weight, slant, justification, hyphenation, kerning, for increasing legibility and readability.

- Using rounded and open typeface counters instead of sharp and angular.
- Depicting mood by choosing the appropriate typographical features which include weight, color, size, slant, framing, formality, and flourishes.

This chapter focused on the formal aspects and elements of the picture book as an aesthetic object. A picture book is considered as a totality that integrates all the designated elements explored in this chapter in a sequence in which the relationships among them are crucial to understanding the book. In semiotic terms, each part of the picture book functions as a sign and has the potential to contribute meaning to the book.

Establishing the criteria for picture book illustration creates a theoretical basis for making a list of Arabic children's picture books available in the Lebanese market to be used in the following methodology chapter as a tool during the interviews with children. The next chapter on research methodology will explore research strategies and data collection techniques, in order to establish the methods used in data collection and interpretation.

3. METHODOLOGY

3.1 Introduction

Picture books are learning tools found in book stores, school libraries, and at home. This research addresses various stakeholders related to the Arabic picture book design in Lebanon, covering multiple cases to draw a single set of conclusions. Adults including parents and children's relatives, teachers, librarians, picture book authors, illustrators, and publishers are all involved in creating meaning of concepts and stories in picture books for children. Children use picture books to understand their environment and the world, but also to simply have fun reading (Yu, 2007). This research is conducted as a case study in order to understand a real-world case and assumes that such an understanding is likely to involve important contextual conditions pertinent to this case (Yin, 2014). Therefore, it is important to understand this case through the current books in the Lebanese market, and the stakeholders involved (either in the design process or in decision-making and purchasing the book) in creating meaning of concepts and stories in these books for children, as well as their end-users. Making use of approaches learned in the literature review, the primary empirical data will be collected through interviews. In order to investigate children's picture book illustration design practices and principles in Lebanon, interviewing illustrators and publishers of Arabic picture books in Lebanon, as well as professors in children's literature is necessary. Furthermore, the established criteria will help evaluate and select Arabic picture books that meet the requirement for books suited for the children age group under investigation and then test them with their end-users.

Making use of approaches learned in the literature review, the primary empirical data will be collected through interviews. In order to investigate children's picture book illustration design practices and principles in Lebanon, interviewing illustrators and publishers of Arabic picture books in Lebanon, as well as professors in children's literature is necessary. Furthermore, the established criteria will help evaluate and select Arabic picture books that meet the requirements for books suited for the children age group under investigation and then test them with their end-users. The selected Arabic picture books will help explore children's preferences of themes and design elements by using them as artifacts while interviewing them. The results will be analyzed and compared to the findings in the literature review in order to establish a set of guidelines on how to enhance the quality of Arabic illustrated picture books in Lebanon. These guidelines could then be used by illustrators. After explaining the methodology, its limitations are discussed and means to mitigate them presented.

3.2 Review of Methodologies

Selected methodologies are reviewed in order to select the most suitable one for this study and they are presented in relation to the following themes: participatory design method engaging children, multiple case studies with children and selection of schools, designing and analyzing interviews with children, and taking advantage of a community event. Reviewing these themes is necessary because when children are involved in a research, the methodology needs to be adapted to suit them too, as well as their capacities. Each section will be explained in terms of method of recruiting participants,

age groups, contexts where the studies were conducted, and the subjects of investigation (if available) for the purpose of drawing conclusions significant to this research.

3.2.1 Participatory design method engaging children

A case study method and the participatory approach was adopted by Culén, Bratteteig, Pandey, & Srivastava (2014) to design a 3D book for young children aged three to five in a children's museum. The four researchers engaged four school children aged eight to eleven. With eight members of the team, they also worked in various group settings, for example two researchers and two children could form a smaller group under design sessions. The encounters took place in part at the house of one of the researchers and in part at a university lab. The encounter of the researchers with children was divided into two parts: interviews related to the children's interests and preferences regarding picture books that they were familiar with, and an open-ended activity that promotes creativity. The collected data was analyzed and children's behaviors were observed.

Moraveji et. al (2007) followed the participatory design method to engage school children aged three to thirteen with various educational backgrounds in comic book design aiming to elicit ideas from them. By using known plot formats, interaction styles, and characters in comics, researchers elicited ideas from children by conducting an experiment. Rather than asking children to create a completely new comic strip, they asked them to fill in a partially complete comic; since it is preferable to generate ideas in small steps (Morajevi et. al, 2007). However, because the context and theme of the comic board was predetermined, the scope of the generated ideas was limited. Gielen (2008) involves users in the design process to identify the everyday context of product use and assess users' needs prior to defining product types or desirable product characteristics.

Consequently another primary goal was to identify the themes that occupy children's minds and document their daily lives. Gielen (2008) recruited 13 children aged eight to eleven as participants to elicit emotional responses from them, including their concerns, memories, feelings and experiences on the theme of fear. This was achieved by producing artifacts that express their thoughts, feelings and ideas as well as discussing with the researchers about their opinions regarding fear.

What can be learned from the above methodologies is that engaging children with an activity which entails creativity is efficient to elicit emotional responses. Naranjo-Bock (2011) explains that a design project for children that follows a user-centered approach requires a thorough knowledge of the audience. Conducting user research is a vital part of the product development process and enables designers to discover how to provide meaningful experiences for children in a specific age range (Naranjo-Bock, 2011). It is preferable to conduct an open-ended activity without predetermining context and themes in order to allow children to express themselves freely. Also, asking open-ended questions, and suggesting that they elaborate on their ideas is important to make them feel part of the process, while promoting a fun and casual atmosphere. In addition, involving parents or teachers is essential while working with children since they are familiar with the children and can help establish communication with children (Naranjo-Bock, 2011).

3.2.2 Multiple case studies with children and selection of schools

Hoffman et. al (2012) visited four schools to study children's reading interests and preferences. The authors conducted individual and group surveys, assessments and

interviews across pupils aged five to eight and school personnel for the purpose of creating a new school library program for the school to adopt (Hoffman et. al, 2012). They also analyzed book checkout records, observed library and classroom usage and conducted a text analysis of a sample of books. The tools used allowed the researchers to triangulate results and present a broad menu of options from which school library programs can later choose to implement. Grimes and Warschauer (2008) examined the implementation of a one-to-one laptop program in three diverse schools by using interviews, observations, surveys, and analysis of student work while focusing only on the same children aged five to seven over a period of two years. When selecting schools, they considered three different economic statuses as well as three different ethnographic backgrounds to allow cross-case analysis of schools with diverse student populations. These schools are located in a semi-urban school district in California. The fact that the program was in a highly diverse school district improves the likelihood of comparability with other schools in California and across the country (Grimes and Warschauer, 2008).

The study conducted by Wilcox, Angelis, Baker and Lawson (2014) investigated practices and processes related to graduation outcomes in rural schools. The researchers conducted a multiple case study in which six schools were sampled based on their graduation rates. Furthermore, the multiple case study method was chosen as it facilitates comparison of different data sets and focuses attention on contextual conditions that are pertinent to pursuing the research questions (Yin 2005 in Wilcox, Angelis, Baker and Lawson, 2014: 4). Purposive sampling of schools was used to compare distinguishing features of schools with significant differences in graduation rates. The study consisted of semi-structured interviews to interview teachers, specialists and school administrators

resulting in a total of 63 interviews in the six rural schools included. These were in addition to documentary evidence collection. Using cross-case analytic procedures, results were analyzed.

Therefore, when investigating different schools, it is important to consider many aspects such as the social, economic and ethnographic backgrounds of the students as well as the geographic location of the schools, and their standards which are mainly measured by measuring the statistical rates of graduation. Working with multiple cases such as different schools facilitates the comparison of different data sets and focuses on the context being investigated (Yin, 2014). Moreover, purposive sampling allows the researcher to make decisions concerning the individuals to be included in the sample, based upon a variety of criteria including specialists in the research topic and participants who are most likely to contribute with appropriate and relevant data. The cross-case analysis method is used for the purpose of examining themes, similarities, and differences across cases.

3.2.3 Designing and analyzing interviews with children

To improve the understanding of children's reading preferences and perceptions of their world, and encourage deeper exploration and clarification of topics than is possible with a survey, Sturm (2003) explains that using the open-ended interview method enables children to express their preferences in their own words. 2000 responses to an open-ended survey were analyzed. Surveyed children's ages ranged from 2-18 years old. Children were provided with preprinted cards when they visited a school or public library which they filled out and entered in a drawing for institutional prizes such as computers,

games and free tickets as a reward for participating. These cards were double sided; the front required the child to fill in such personal information as name, address, phone number, age, and the name of their library. The back of the card asked four questions. To analyze the data, children's responses were coded and categorized. In another study, to find out children's theme preferences of picture books,

In another study, exploring children's theme preferences of picture books, Correia (2011) tracked the books that the children checked out of the school library and tallied the number of books chosen over a period of 19 weeks. This strategy also allowed the researcher to note the choices of boys versus girls and the types of books selected. Correia (2011) also observed and interviewed children aged four to six in their classroom during their read aloud class to collect more data. After conducting surveys, assessments and interviews at schools, Hoffman et. al (2012) corroborated the results to present children's reading preferences and interests.

Therefore, asking open-ended questions to children allows them to express their preferences freely. Rewarding children with gifts encourages them to answer to surveys or to participate in interviews and activities. Coding and categorizing children's responses facilitate data transcription during the analysis (Creswell, 2013). Also, when children interpret their responses, they facilitate coder reliability.

3.2.4 Taking advantage of a community event

A study dealing with illustration design elements and children's preferences is Chung and Gerber's (2010) research, which aimed to design a coloring book for children of ages five to seven with four pages of creative illustrations that children could enjoy. In this

approach, Chung and Gerber (2010) took advantage of a community event giving them access to two important resources: children and a place to co-design. In order to seize the opportunity for research purposes, it is important to categorize a community into either community of interest, and/ or geographical community (Queensland the Smart State, 2005) to ensure the collection of useful information depending on the subject of investigation. To connect with a community effectively, developing a sound understanding of that community needs to be achieved via a number of processes: 'community profiling' which involves reviewing a range of data sources to build a picture of the demographic makeup of a community, 'stakeholder segmentation' which is a way of clustering the community into groups, undertaking 'media research' which may provide useful information such as the location of 'hot spots', and 'talking with others' may provide useful information about the community (Queensland the Smart State, 2005: 8). Therefore, undertaking one or more of these research processes will reveal important community features that will impact upon decision-making about appropriate community engagement methods and techniques. In the case of Lebanon, a country with diverse communities, the following community engagement techniques can be used to be able to communicate with a certain Lebanese community such as social media and social space gatherings.

3.3 Various Research Methods and the Case Study

This research adopts the case study method, investigating a contemporary phenomenon within its real-world context (Yin, 2014). Furthermore, it uses the multiple case study approach since it consists of three cases. Regarding the methods applied,

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interviews and engaging children participants are two data collection methods used in this case study. After reviewing other methodologies with similar contexts with respect to the theme and the purpose of the research studies, the participants and their age, and their focus on picture books, the case study conducted for this research uses interviews as a qualitative method with open-ended questions, to give children the opportunity to discuss their interests and preferences of picture book illustrations and themes. Apart from asking them the interview questions, the encounter also engages children in the production of drawings to elicit emotional responses from them, including their concerns, memories, feelings and experiences.

In order to include steps concerning the way of choosing the participants, the way of communicating with them to collect data, the picture books used in the interviews, the design of the interview, and adaptations necessary to suit the Lebanese context, the conclusions drawn from the reviewed methodologies are adopted in this research. Gielen (2008) states that the application of the user-centered approach with children comes with some specific challenges and asks for further development, preferably in cooperation with the field of pedagogy, ethnography and child psychology. For this reason, it is important to consult specialists in these fields and with the stakeholders involved in the picture book design process to gain more knowledge on how to work with children as participants in a research study and all the related issues. Therefore, other than interviewing children, open-ended interviews with different Lebanese publishers, illustrators and professors in children's literature are conducted. Data on the current state of Arabic children's books in the Lebanese market and the extent to which they integrate children's interests and needs in illustration design practices are needed from the

stakeholders. Furthermore, those who were excluded from this study are school teachers, adults (parents/ relatives) and librarians due to time limitation. Gielen (2008) explains that results from these studies, when aggregated and made public, can provide the concerned designers, in this case illustrators, with a source of inspiration and empathy for their future users. The next section explains the methodology with its different sections; they include recruiting participants, ethical issues in this research, design of the interviews, and criteria and assessment of selected picture books.

3.3.1 Recruiting participants

Contacted stakeholders for this research are listed in the figure below (refer to Figure 13) along with the data collected by interviewing them:

Publishers

Lebanese Publishers

- current state of the Arabic children's literature industry in Lebanon

- problems they are facing in the Lebanese and Arab markets

Illustrators

Lebanese Illustrators

- the means and extent to which they integrate children's interests and needs in their practices.

Professors

Professors in Children's Literature

- to study the state of Arabic children's books in the Lebanese market in terms of illustration elements and themes

- to learn which ones appeal to children more than the others.

Children

Children (5-7 years)

- to provide insights into their preferences, interests and needs regarding Arabic picture book illustrations and themes.

Publishers

Lebanese Publishers

- current state of the Arabic children's literature industry in Lebanon

- problems they are facing in the Lebanese and Arab markets

Lebanese Illustrators

- the means and extent to which they integrate children's interests and needs in their practices.

Illustrators

Professors

Professors in Children's Literature

- to study the state of Arabic children's books in the Lebanese market in terms of illustration elements and themes

- to learn which ones appeal to children more than the others.

Children (5-7 years)

- to provide insights into their preferences, interests and needs regarding Arabic picture book illustrations and themes.

Children
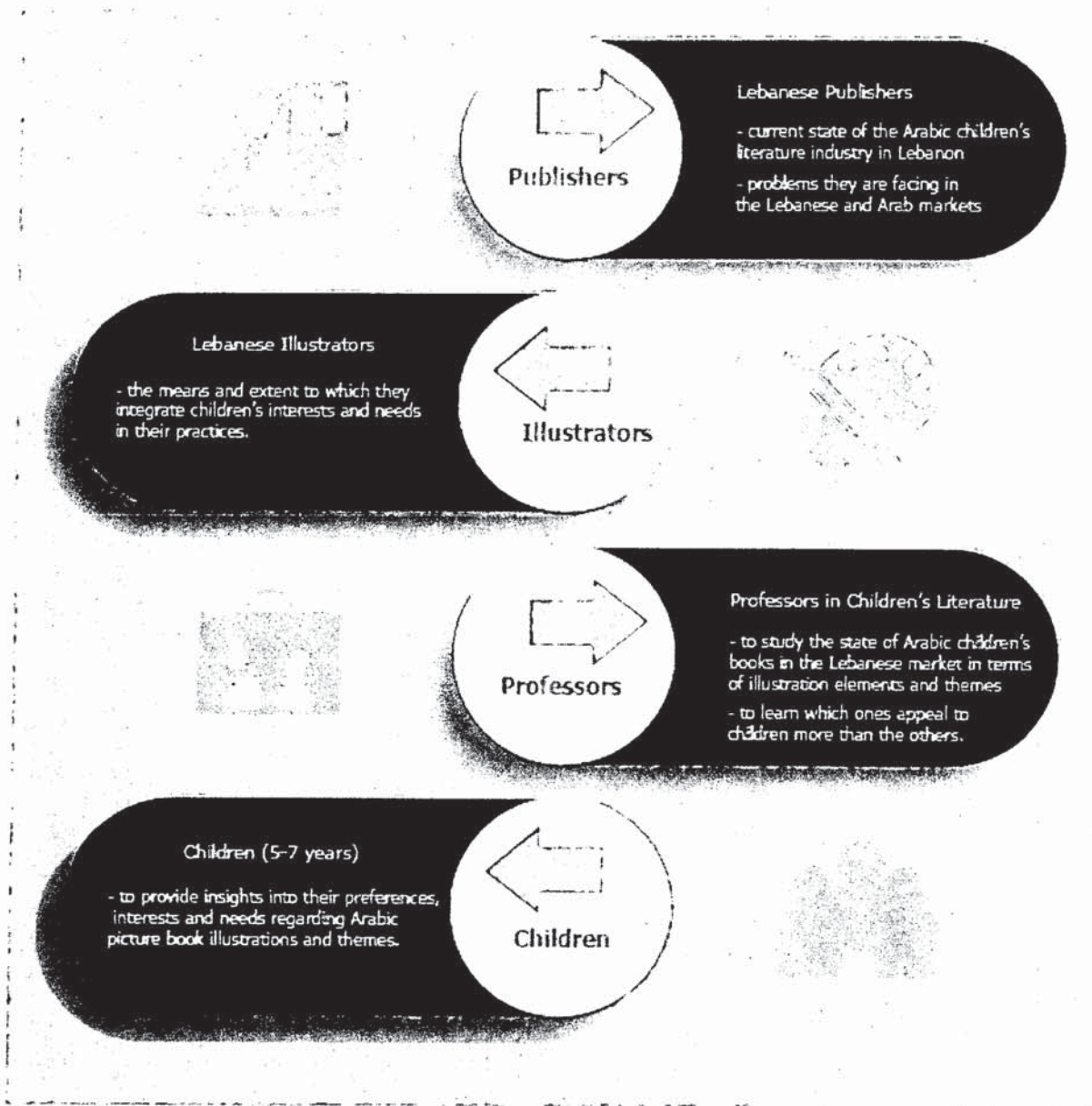
Figure 13. Justification of recruitment of participants

Figure 14 summarizes the criteria and methods for recruiting children, followed by a detailed description of the recruitment method.
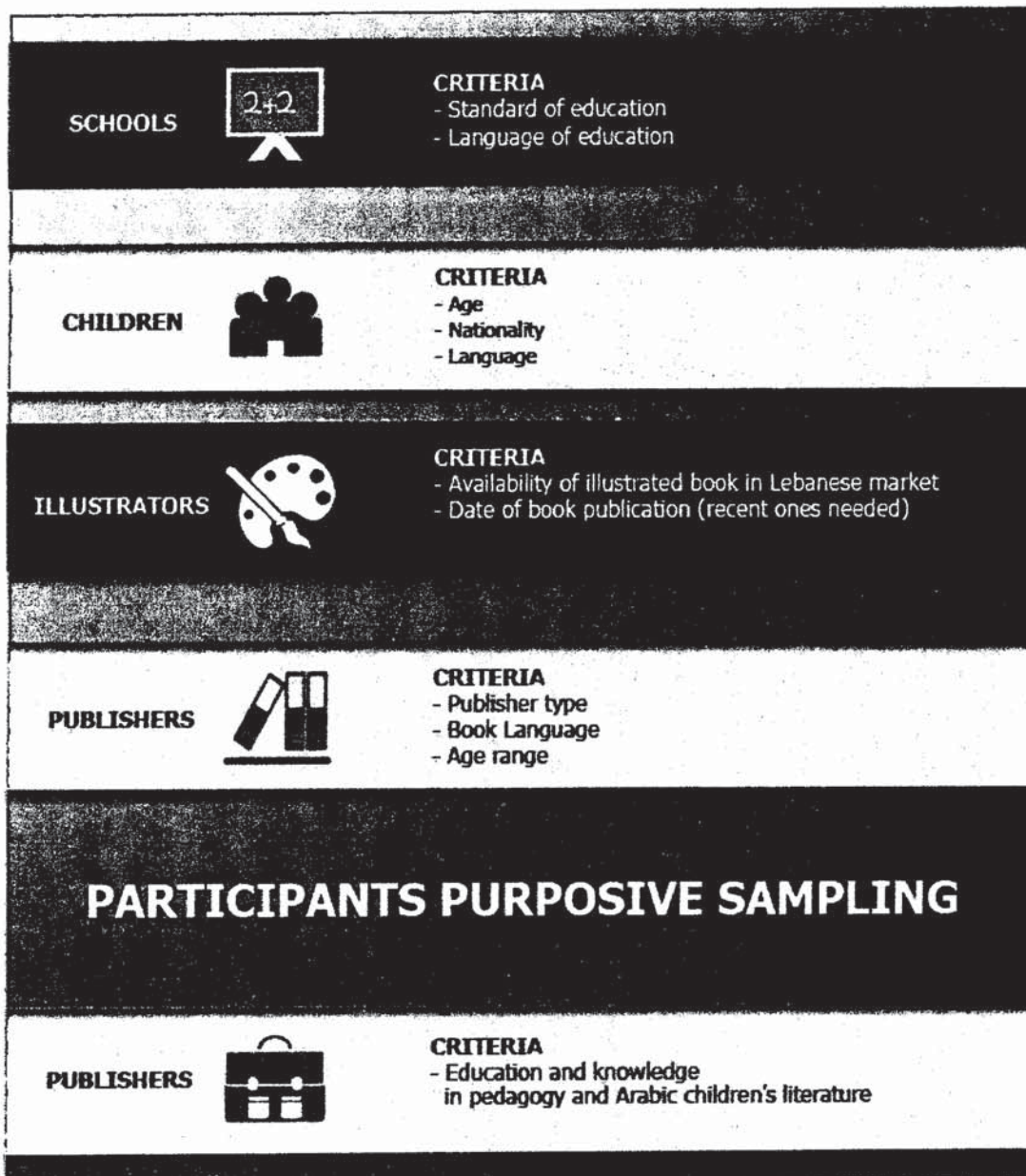
Figure 14. Summary of recruitment of participants

Establishing contact with schools to gain access to children

In this study, children as participants are selected according to their age which is between five and seven years as per the focus age group of this research (refer to Chapter

1, Section 1.2), and nationality since this research focuses on Lebanese children. Language of education is another criterion for participant selection and since schools in Lebanon focus either on English, French or Arabic as language of education, the three languages are considered while selecting schools.

This study adopts purposive sampling method which is a method that gives access to people, times and settings that portray given criteria (Ritchie and Lewis, 2003; Merriam, 2009; Creswell, 2012).

In order to gain access to a larger number of children and avoid bias based on the social status of children, and in order to ensure that all three languages of education are included, schools are chosen as a context to encounter children rather than other social places such as playing areas at the malls. A list of all the private and public schools in Lebanon, prepared by the Ministry of Education and Higher Education (refer to Appendix A) is used to enable the choice of three different schools each following a different language of education (Arabic, English or French) but having the same educational standard. The first school uses English language as the primary language for education, the second uses French language, and the third uses Arabic. Hence, the first two are private schools and the third is a public school. Children aged five to seven are chosen from these schools as participants, and two groups of 30 children are selected from each school (aged 5-6 and 6-7) knowing that each classroom consists of 30 children, and because this is how classes are divided in terms of age groups.

Establishing contact with Lebanese illustrators

In this study, Lebanese illustrators are selected according to the availability of the picture books they have illustrated in the Lebanese market, as well as the date of

publication of the book. Illustrators with more recent published books are needed since most of the questions are related to the latest illustrating trends and techniques, as well as the latest market demands. An official list of illustrators in Lebanon was not readily available, therefore constructing one by collecting data from various sources was necessary. Three important lists of illustrators were combined; the first list of names is extracted from the international conference *What a Story: Children's Literature Today* (2009) which took place in Beirut in collaboration with many Lebanese illustrators. The second is retrieved from one of the award-winning Lebanese publishers of Arabic children's picture books, which collaborates with many different Lebanese illustrators. The third list is extracted from the syndicate of professional graphic designers and illustrators in Lebanon. Twenty-five illustrators were contacted via email or social media. The email or message sent to them on social media explained the research topic and asked them if they agree on setting up an interview meeting or replying to the questions by email. Eleven illustrators responded to the emails/messages within two days and agreed to participate in the interview so the interview questions were sent to them electronically, to which they could reply by email. They emailed back their responses within ten to fourteen days. Two out of eleven illustrators preferred a face-to-face interview, which took place in their office and an audio-tape was used to facilitate transcribing notes. In order to get more responses from illustrators, more than twenty-five could have been contacted through social media.

Establishing contact with Lebanese Publishers of Arabic Picture Books

Publishers were selected according to the type of picture books that they publish, the language of the picture book and the age range of children audience that they target. After researching publishers in Lebanon that meet the relevant criteria, I found through online research that the total number of publishers is thirteen[23]. These thirteen publishers were contacted via telephone. Six out of thirteen asked for the interview questions to be sent by email. Two publishers were not available and three responded to the questions by email. Moreover, one was interviewed face-to-face at the publishing firm and another over the phone. The face-to-face interview was recorded and transcribed.

Establishing contact with Pedagogists/Professors in Education of Arabic Children's Literature

The professors are selected according to their background in the field of pedagogy and Arabic children's literature in Lebanon. Three of the contacted professors from universities in Lebanon agreed to meet face-to-face during their office hours and respond to the interview questions. Two professors met at the same time during office hours since they work together at the same university and department. They had prepared around ten Arabic and French picture books that have been recently published, and that are trendy and appealing to children aged five to seven to refer to them and explain while going over the interview questions. Refer to Appendix F for a calendar of all the interviews.

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[23]http://www.publisherunionlb.com, last accessed on 28-10-2014

3.3.2 Ethical issues in this research

Ethical research allows children to participate not just as data providers but also as social actors capable of influencing how adults think (Atwool, 2013). Research with young children poses a number of important ethical issues that need to be addressed. These include: informed consent, the right to withdraw, and the unequal power relationships between the adult researcher and the children participants who need to be given as much voice in and ownership of the research as possible (Mawson, 2013).

In order to gain access to the three schools and set a meeting date to interview the children, three permission letters signed by the university's faculty dean were prepared. The first two were given to the school principals two weeks prior to the meeting dates (refer to Appendices B and C). The third letter, which corresponds to the public school was given to the Ministry of Education three weeks before the meeting date because the process takes longer until official consent is given (refer to Appendix D). Then, letters of consent to children's parents signed by the faculty's dean were also prepared (refer to Appendix E).

Other ethical issues presented in this study pertain to the issue of protection and safeguarding of the children addressed in this research from harm (Noret, 2012). In this case, three principles in ethical research with children or young people below the age of 18 are adopted according to the National Children's Bureau guidelines (National Children's Bureau, 2011): protecting children from maltreatment by making them feel comfortable, encouraged and satisfied at all times, preventing impairment of children's health or development by using drawing and coloring tools that are appropriate for children to use, ensuring that children remain in circumstances consistent with the

provision of safe and effective care with the help of the school administration and the school's art or Arabic teacher as well as the department's supervisor and principal.

Related to the issue of protection from harm is the issue of over-research and misunderstanding (Lon, 2013). To avoid over-research, children should not be asked to take part in too many studies or asked too many questions. For this reason, the questions related to typography were broken down into nine questions and divided equally among the three schools, summing up to a total of three typography questions per class. Regarding the issue of misunderstanding, it is important that researchers make sure that the information being used in the study as well as the questions asked can be understood. Misunderstanding questions and instructions could be a potential cause of distress in terms of causing anxiety or confusion.

Regarding confidentiality and anonymity, they cannot be guaranteed when working with children because of safeguarding requirements (Noret, 2012). Researchers are required to ensure that they are able to identify a participant should a child protection issue be disclosed. Noret (2012) suggests the use of a coding system, assigning codes to participants' names or by asking dates of birth and home address, which can be used to identify an individual participant. For reasons of confidentiality, the home address is not noted down. However, other data pertinent to this research was collected, including the participant's age, gender and language of education to identify each child participant.

3.3.3 Design of the Interviews

Interviews with Children

Four sources of evidence are used to collect data for this case study in addition to the literature review: interviews, two types of physical artifacts, which are the picture books used while interviewing children, and the drawings children made during the encounter. Figure 15 shows the general categories extracted from the literature review that the interview questions are based on.
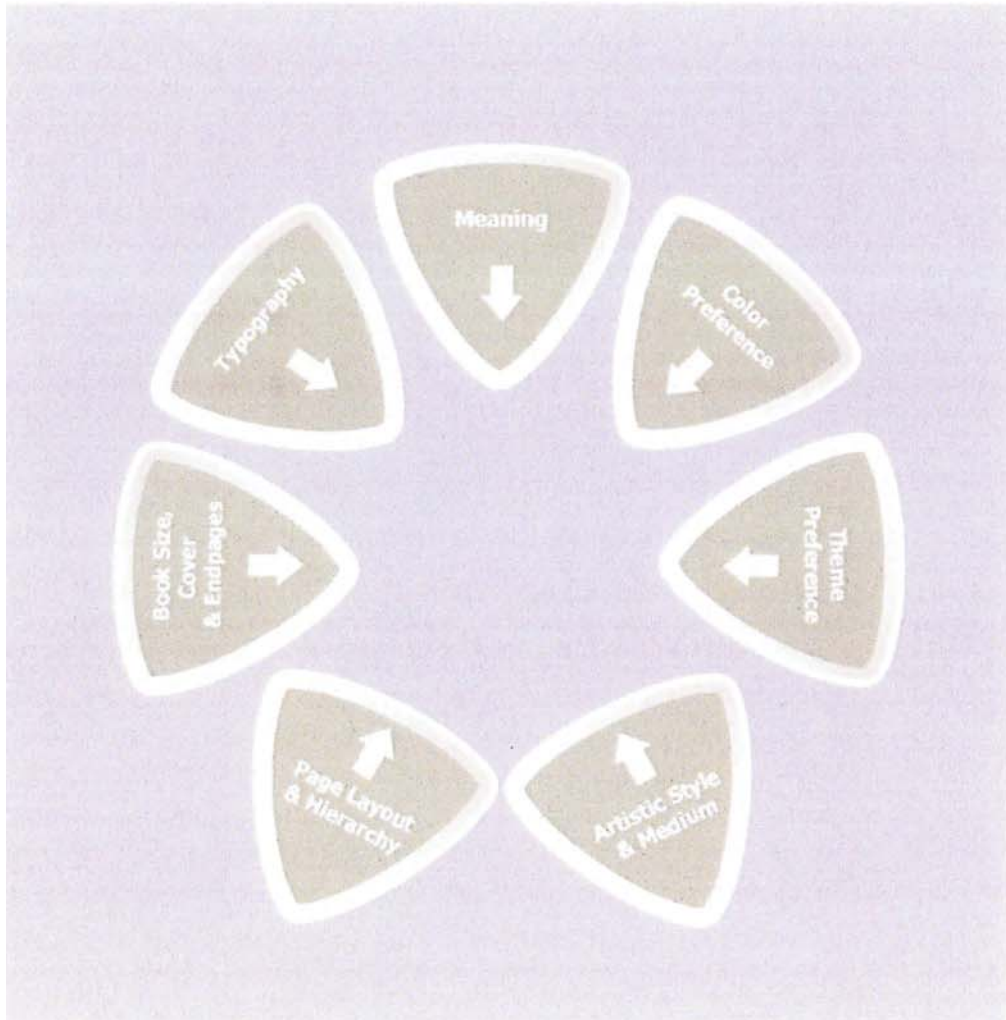
Figure 15. General categories extracted from the literature review for children's interview questions

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Pilot

Depending on the schedule allowed by the school, the encounter took place either during an art class, or an Arabic class. The former permits stepping away from the classroom environment since children will be engaged in a creative activity so they will need their workspace and tools. For the pilot, a checklist form was prepared in order to fill out their responses as fast as possible (refer to Appendix H). The art class was divided into three groups and during Arabic class students first gathered around the teacher's desk two rows at a time to view the eleven picture books and select their favorite one. Then they went back to their regular seating scheme to complete the interview questions, encouraging them with reward stickers at the end of the encounter. As I asked the questions and held the corresponding books, my colleague recorded their responses. Regarding typography and text, nine critical issues were tested. Three of these issues were tested per school for the purpose of avoiding any distress or psychological harm to children (refer to section 3.3.2). After answering the general questions, they moved to their drawing activity, which was to draw and color anything related to their preferred theme. As they were drawing, we divided the rest of the question among ourselves and passed by each child and asked him/her the more specific ones. The responses were audio-taped and transcribed on paper.

Procedures

Before beginning to prepare for the encounter with the children, a second researcher who is a graphic designer was asked to help collect data during the interviews with children. This researcher was well-informed about the encounter and the content of the

interview questions two weeks prior to the encounters. This gave her time to ask questions if something was unclear, to go over the questions, and to divide them among us.

After getting the approval from the school's principal, all the needed information regarding the participants was recorded with his/her assistance. Then, the visual material used while asking children questions were prepared. A second researcher who is a graphic designer is asked to help collect data during the interviews with children. I informed her about the encounter and the content of the interview questions two weeks prior to the encounters. This gave her time to ask a question when something was unclear, to go over the questions, and to divide them among us. During the encounter, when children were asked to specify their preferences of certain picture book illustration design elements over others, two specific pages entailing the two opposing critical issues were photocopied in A4 size and glued next to each other on an A3 paper. This allowed recording responses in the fastest and simplest way possible. The responses were recorded at the back. For example, when pages A and B were being tested and the child preferred A, an X was marked at the back side of page A. If the answer to a question had 3 options, then a table with three columns was previously drawn by hand at the back of the page and an X was marked in the appropriate column.

Regarding children's seating chart, the school principals had allowed us to visit children either during their Arabic class or their art class depending on the schedule that they specified. Therefore, in the art class, there were three rectangular tables that seated 10 children, dividing the class into three groups. As for the Arabic class, each child was seated in his/her own chair and desk as usual but they were asked to approach to the

teacher's desk during one part of the encounter and they were allowed to pair up to share coloring pencils during the drawing and coloring part. Avoiding formal seating or room layout, for instance by not sitting behind a desk and, if possible, coming down to the level of the child is suggested by Shaw, Bradey and Davey (2011). At the beginning of the encounter, an open and informal atmosphere was created prior to embarking on the data collection to ensure that the children felt comfortable (refer to section 3.3.2). Consequently, we introduced ourselves and asked them to tell us their names by turn. Before asking them the specific questions in the interview, general questions were asked about whether or not they like to read stories, the language of books they have at home, and their preferred language to read in order to introduce them to the subject of the questions they will be asked and to get an idea of their responses regarding these general questions. A tape recorder was used to aid in reviewing the data later on during the analysis. Also, children were promised to be given prize stickers at the end of the encounter since rewarding children with an appropriate gift encourages them to participate (National Children's Bureau, 2011).

Before moving to the specific questions, children were given enough time to view all of the demonstrated picture books but not enough time to read them. They were also asked to select their favorite one, and explaining why. This also gave them the opportunity to share and discuss their ideas with their colleagues, which will elicit more or new responses. In order to complete this part of the encounter in an organized manner, children in the Arabic class were asked to gather around the teacher's desk where the books were placed, two rows at a time. As for the art class which is divided into three large desks, the books were given to each group of children by turn.

When all the groups were done viewing the picture books and answering to the question, they moved to the drawing part of the interview where they were each given a plain A4 paper and a box of twelve coloring pencils and were asked to draw anything they liked. This activity shows their color and theme preferences. As they were drawing and coloring, the researcher and I passed by each child and asked the questions while referring to the corresponding photocopied paper and recorded the answers, two questions at a time. These questions were short and asked in simple language while avoiding abstract concepts (refer to section 3.3.2) as much as possible to be consistent with the children's level of understanding and what they can meaningfully contribute to the research (Atwool, 2013). Atwool (2013) adds that children have a short attention span, which is also why the questions should be short and simple. The fact that there is no right or wrong answer is stressed during the interview. The questions asked were related to the interviewees' preferences of elements in the picture books being demonstrated to them as well as discussing what makes reading fun to them and which of the picture books they would like to have to keep (refer to Appendix G). Some confusion might occur in understanding the responses of the children interviewees so it is preferable, in some cases, for the interviewer to repeat the question or ask the question in a different way to help the child clarify what he/she meant. The questions move from selecting their favorite picture book, to theme preferences, and to color preferences (vibrant/dull ; warm/cool). Then, questions were asked about children's font preferences considering legibility with respect to 3 critical font shape characteristics, page layout and hierarchy, and font color contrast. The total number of these issues related to font preferences were divided equally between schools because there was not enough time in a session to test

them all and to avoid overloading children (refer to section 3.3.2) with too many questions in one encounter (Hamela, 2003).

When all the questions had been asked and children were done with their drawings, we passed by the children and thanked them for participating and complemented them on their interesting drawings. We also gave them the stickers that we had promised them at the beginning of the encounter.

Interviews with Lebanese Illustrators, Publishers, and Professors in Education of Arabic Children's Literature

Three semi-structured and open-ended interviews were designed for the three different set of interviewees entailing common questions and some different ones about the state of Arabic children's books in Lebanon and interests and preferences of children regarding themes of illustration in picture books (refer to Appendices I, J, and K). Other questions were asked regarding publishing constraints in the Lebanese market and governmental policies.

For the purpose of redesigning the chosen picture book, the method of triangulation is used to validate the acquired information (Yin, 2014). In addition to the guidelines extracted from the literature review, interviews with all four stakeholders are analyzed and compared for triangulation purposes. Similar responses and unique/new approaches are then presented in a list of guidelines, deducing specific considerations for the Lebanese illustrators of Arabic children's books. These guidelines will be applied on the

picture book that children liked the least, with the purpose of improving that book's illustrations, and making it more appealing to children.

Analyzing open-ended interviews is challenging due to the difficulty in coding the data (Johnson & Christensen, 2008). Since, participants express their responses freely with as much detail as desired, it can be quite difficult for researchers to extract similar themes or codes from the interview transcripts as with close-ended responses. Children's responses will be coded based on the following themes: picture book preferences (refer to Section 2.7), color preferences (refer to Section 2.8.4), font preferences, font legibility with respect to page layout (refer to Section 2.8.12), font legibility with respect to color contrast (refer to Section 2.8.4). The evaluation of the drawings will be coded based on the following themes: object from daily life/ personal experience, family and love, animals, and nature (refer to Section 2.7). However, other themes might be added that are generated from children after finalizing the empirical work.

Regarding the interviews with illustrators and professors, their responses will be coded based on the following themes: role of illustrations in changing/improving children's perceptions of life (refer to Section 2.6), effects of illustrations on reading performance of children (5-7 years) (refer to Section 2.6), the Lebanese context (refer to Section 2.1), illustration themes and styles that appeal to children (refer to Section 2.7), and the effect of e-books on children's readership. Even though the effect of e-books is excluded from this research, but investigating this issue might help gain some insight and suggest it as future research to explore the effect of e-books on printed books' readership

on children in Lebanon and children's willingness to give up reading printed books. The responses of publishers will be coded based on the themes: publishing children's books in Lebanon (refer to Section 1.1), readership (refer to Section 2.1), effect of e-books, and governmental policies to explore the extent to which the government is working on supporting and improving the Arabic children's book publishing market in Lebanon

3.3.4 Criteria and Assessment of Selected Picture Books

Eleven Arabic picture books were selected (refer to Appendix L) all of which are found in the Lebanese market and have been either written or translated by Lebanese authors. Some of them have also won awards for their quality of illustration. However, the authors of these books were not interviewed. Moreover, these books are based on the following criteria extracted from the literature review and are the basis for evaluating these books: meaning/ culture (refer to Section 2.8), color preferences (refer to Section 2.8.4), theme preferences (refer to Section 2.8.2), artistic style and medium (refer to Section 2.7), page layout and hierarchy (refer to Sections 2.8.7 to 2.8.9), book size, cover and endpages (refer to Sections 2.8.1, 2.8.2. & 2.8.7), and typography (refer to Section 2.8.12) (refer to Figure 16). These books have been unpacked into their core design structure to analyze the illustration design elements and typography of each (refer to Appendix M for a sample). Furthermore, several books were needed to make sure that all these criteria are included when interviewing children.

Meaning /Culture

Symbols and/or objects representing the Lebanese culture related to children are integrated

Color Preference

Warm and cool color palettes used in picture books are selected to find out which one children prefer

Theme Preference

Picture books of the three different genres (fiction, nonfiction, and informational) suitable for children aged 5-7 are included.

Artistic Style & Medium

Six styles are found in children's books and therefore they are all included in the selected picture books. (realism, impressionism, cartoon art, surrealism, expressionism, and folk art)

Page Layout & Hierarchy

- Picture books having and lacking hierarchy of shapes by their placement on the page are chosen.
- Picture books having short and longer line lengths are selected.

Book Size, Cover & Endpages

- Large, medium, and small-sized picture books are selected.
- Picture books having covers and endpages that reflect the story's theme are selected as well as those that do not.

Typography

- Two typefaces are considered: generous ascenders/descenders and short ones.
- Two typefaces (rounded and angular counters)
- Contrast between type and background by using light text on dark background, and another one lacking contrast are chosen.

Figure 16. Criteria for Choosing Picture Books

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3.4 Method of Analysis of the Interviews

All the collected data and other materials collected from the empirical work are compiled and the two word-processing tools Microsoft Word and Microsoft Excel are used to transcribe and organize the data in spread sheets. Since the case study has multiple cases, at least two analytic strategies need to be considered (Yin, 2014). Each case is decomposed into a set of common variables. Yin (2014) explains that the desired array of variables preserves the integrity of each case and its potentially unique combination of variables. Then, using the *pattern-matching strategy*, patterns will be tracked across the set of cases (Yin, 2014). For example, for the drawing part of children's encounter, a number of predicted themes are first identified such as objects from daily life/personal experiences, family and love, and animals, which are themes preferred by children according to the literature review. Results and conclusions are thus based on the pattern-matching procedure, examining the pre-post patterns of outcomes in every school and also in comparison to the interview findings and to the findings in the literature review using data triangulation. The data collected from each class is treated as a separate case and the case's combination of variables can then be tallied using the *cross-case synthesis strategy* (Yin, 2014). The cross-case analysis dissects and arrays the evidence from each case in the form of word tables. Generalizations about successful illustration guidelines to enhance the quality of Arabic picture books in Lebanon are then derived by using the replication logic which, according to Yin (2014) helps build support for the theoretical propositions given that these generalizations have shown positive results.

3.5 Methodological Limitations

Methodological limitations in this research involve the following aspects:

Nature of children as subjects of research

Controlling validity and reliability of the study is a key issue especially with children as a research population (Yin, 2007). Developmental psychologists and educators suggest studying the whole child to include various aspects of a child's development (Zill & West, 2001 in Yin, 2007). Even though many psychological aspects of a child's development affect the child's decision-making process in the selection of a picture book, these aspects were excluded due to time limitations. Interviews with the stakeholders capture only part of a child's background.

Moreover, there were external factors beyond my control during the interview with children. For example, a child's attitude is often influenced by his or her personality or authorities of parents or teachers. In some cases of this study, children did not want to draw or respond to the questions and then only cooperated because the teachers repeatedly asked them to. Also, when encouraging children to discuss their ideas, and in order to make them feel more comfortable, it is preferable for the activity leaders to provide an icebreaking activity such as singing a song together (Chung & Gerber, 2010). In addition, Chung and Gerber (2010) recommend to publicly praise children's stories or responses, or reward them with an appropriate gift or a simple thank you (National Children's Bureau, 2011).

Some other challenges that might be faced in the participatory approach with children are limited access to children and miscommunication between adult designers and children. Meeting children at school allows access to a larger number of children than at a social space since approximately thirty children are found in a single classroom and access is established with a letter of consent to the school principal and to the parents simultaneously. Whereas meeting children at a social space will allow access to a less number of children after getting consent from the manager of the social space and from the parents each time a child is available. This method requires additional facilitators to manage the large number of participants. Therefore, having the classroom teacher supervise the interview will help avoid any miscommunication because he/she is used to the children and will help in managing the large number of participants (Noret, 2012). Also, Atwool (2013) highlights the importance of having at least two researchers conducting the interviews with children aside from the teacher, therefore another graphic designer will help transcribe their responses and make sure everything goes smoothly.

Sample Population

The sample size entailing 180 students in all (60 students per school) is not large enough to generalize some of the results in the analysis. A larger sample size is needed including more children and from different areas in Lebanon. Geographical diversification of schools is important. However due to time limitation, this research considered only schools from the urban areas in Lebanon. A key difference between rural and urban schools regarding the academic curriculum is that the course offerings

generally available are more limited for rural students (Debertin and Goetz, 1994), and this might affect the results in the analysis of children's preferences of picture book themes and illustration design elements in this study.

User-Centered Design with Children as a Research Method

The application of the user-centered approach with children comes with some specific challenges and asks for further development, preferably in cooperation with the field of pedagogy, ethnography and child psychology. Also, other stakeholders that were not included in this research may provide more significant information. Parents or guardians can provide information regarding children's reading involvement of picture books as well as simple description of each child's family background. School teachers and principals can explain some of the issues that children are facing regarding reading and learning in the Arabic language. School librarians and book store managers may provide information on the picture books selected by children.

Illustrator's Purpose behind the Illustrations

The illustrators of the eleven selected picture books were not interviewed, therefore the purpose behind their illustrations were unknown. Some of them might have been faced with constraints such as the author's or publisher's preferences. Moreover, since these illustrators were not included in the interviews, their responses or reactions to using the established guidelines in this research are unknown.

3.6 Reflections

During the empirical work, I was faced with many issues that I had to resolve or respond to, including establishing contact with participants, getting approval from the Ministry of Education and Higher Education and from school principals, and dealing with children's behavior during the encounter. When contacting publishers to set an interview meeting, some of them asked for the questions to be sent by email and never responded even after following up with them. Others refused to participate explaining that they will be busy for the few coming weeks publishing picture books and they are unable to respond to interview questions, and nobody else can respond instead.

When researching the list of schools in Lebanon, the official governmental website containing this list was not functioning properly therefore I had to contact the Ministry of Education and Higher Education to get the list. I was asked to specify which area in Lebanon I need because they cannot provide a list for all of Lebanon, therefore I chose schools located in Beirut, Mount Lebanon, and Keserwan. Furthermore, when I asked for the listing of standards of the schools to be able to select three schools of equal standards, the Ministry explained that it has not been done in Lebanon and that it is a difficult task to do. Consequently, they gave me the names of few schools of equal standards which I took into consideration.

To gain access to schools, I met with three school principals having the letters of consent and the picture books that will be shown to children. The first principal showed interest in the subject and gave consent immediately. She also asked me to take pictures during the encounter which will later be inserted in their yearbook. However, she also brought up another issue during the meeting asking me if I can

design a educational book which she was preparing. So, I had to nod and agree that we discuss it another time when the research is over. The public school principal did not show any interest in the research and said that I can meet with the children whenever she receives the signed consent from the Ministry of Education. Regarding the third principal, she viewed all the books carefully to make sure that they did not contain anything that goes against the school's rules and beliefs. She also showed interest in the books especially in the similar ones they have in their school library. Moreover, she highlighted an important issue about children not being able to read all the rounded Arabic fonts, which are often used in Arabic picture books, and this basically opposed what Walker and Reynolds (2005), Caglayan (2009) and Strizver (2013) had stated.

Additionally, my colleague and I were faced with some situations where children told on other children for copying their drawings from each other, or where children asked for more stickers to take home to their siblings. One or two children in each class were interrupting the interview session by making jokes, opening conversations with their classmates and talking loudly, and answering to questions when it was someone else's turn to respond. In these cases, it was important to be careful with our reactions in order not to hurt their feelings and to make decisions that were fair to all the children (refer to Section 3.3.2).

Another important point that a researcher needs to remember when interviewing children, is not to give hints about the answer to a question because it will affect their answers. For example, if a child is being asked why he/she chose a specific book as

his/her favorite the researcher must not ask if color was the reason. Children will start using "color" as their response even if they might have another reason.

3.7 Conclusion

A case study approach is adopted in this research entailing *multiple cases* and various sources in which each one has a role that could be integrated in the research and answer some of the research objectives. *Interviews* are used as a qualitative method to give children the opportunity to discuss their interests and preferences of picture book illustrations and themes, as well as engage them in a drawing activity to elicit theme and color preferences. A set of open-ended interviews with Lebanese publishers, illustrators and professors in education of Arabic children's literature are also integrated in order to collect data on the current state of Arabic children's books in the Lebanese market and the extent to which they integrate children's interests and needs in illustration design practices. In the following chapter, the interviews with the four stakeholders are analyzed and data is triangulated to validate the results. As for the drawings made by children, the results are analyzed by using two strategies: *pattern matching* and *cross-case synthesis*. The next chapter elaborates the research findings.

4. ANALYSIS

4.1 Introduction

This chapter begins with a description of the interviews with Lebanese publishers of Arabic picture books, Lebanese illustrators, professors in children's education of Arabic literature, and children aged five to seven. Results are then compared to the established criteria and the findings within the conceptual framework to see if they are in compliance with each other or not. These results are then used in the following chapter, which explains the set of guidelines on how to enhance the quality of illustrations of Arabic picture books, and explains how each guideline is applied on the redesigned Arabic picture book.

4.2 Analysis of the interviews with Lebanese publishers of Arabic picture books, Lebanese illustrators and professors in children's literature

After conducting semi-structured interviews (refer to Section 3.3) with Lebanese illustrators, Lebanese publishers of Arabic picture books and professors in children's education of Arabic literature, some similar responses as well as different approaches that the respondents highlighted are presented.

4.2.1 The role of the illustrations in changing or improving children's perceptions of life

The respondents all agreed that illustrations play an essential role in children's lives. They stated that the importance of illustrations is equal to that of the text. Illustrator C.R. (2014, pers.comm.) stated:

"In my opinion, illustrations are as important as words to telling a story – it was the illustrations as much as words that helped to fire my imagination".

Six out of eleven illustrators added that in some cases illustrations are even more important in picture books than text. Professor I.G. (2015, pers.comm.) explained that famous illustrators may illustrate a second story in the book adding to the storyline and this adds excitement to children's reading. Similar to I. G.'s (2015) explanation, Jalongo (2004) states that illustrations in picture books lure children to read and interact with text by motivating them to find hidden objects, characters, or names or to predict what is going to happen next in the story. R. G. (2014, pers.comm.) stated that children are "very curious and smarter than adults might think". When they look at an illustration, children take time and easily understand visual codes. In the interview, illustrator R. D. (2014, pers.comm.) explained that the author and the illustrator play an important role by allowing children to look at life from different perspectives.

> "It is as if we are giving a child who is used to looking at the light outside his window, the opportunity to open other doors and windows and see light from different angles" (R. D., 2014, pers.comm.).

4.2.2 Effects of illustrations on reading performance of children (5-7 years)

The respondents stated that children have wide imagination, which helps them to discover an illustrated world. Illustrator J. A. (2014, pers.comm.) added that children are very sensitive to colors and visuals and they directly notice unattractive illustrations. The publishers, professors and nine of the eleven illustrators mentioned that the Arabic books they had to read during their childhood were poorly illustrated and unappealing. The respondents associated the pleasure of learning or reading in

Arabic with the quality of the illustrations of the book as well as the quality of paper and printing.

> "I remember when I was young I used to hate this specific illustrated Arabic book. Also it was badly printed and the binding was awful. I felt the adults that made it were not respecting me and not taking me seriously. I felt this particular book was not made with love. No pleasure was associated with learning or reading Arabic and it's a shame!" (J.A., 2014, pers.comm.).

While most of the respondents agreed that the quality of illustrations affects children's reading performance, illustrators R. D. (2014, pers.comm.) and M.H. (2014, pers.comm.) stated that if the story is very interesting to children, then the quality of the illustrations will not really affect children's willingness to read the book.

Also, respondents talked about the fact that formal Arabic language is not well-understood or easily read by Lebanese children like spoken Arabic. Therefore, they explained that the vocabulary, structure and complexity of formal Arabic language does not entice children to pick up a book and read in the Arabic language. Regarding this issue, Farran (2010: 2) explains in her research that children learning how to read in Arabic language are faced with the "mapping problem", whereby children must search for similarities and differences between the spoken and written forms of the language.

4.2.3 The Lebanese context

Regarding the Lebanese context, I. G. (2015, pers.comm.) explained that after studying the content of a dozen Arabic picture books gathered from the annual children's book fair in Lebanon, the storyline of only one book met the criteria that English language experts say is appropriate. Consequently, I. G. (2015, pers.comm.)

explained that authors write children's picture books in Lebanon without having the background knowledge or understanding of what children's literature really is. "The topic would be fine in some cases, but the way it is treated does not make sense" (I. G., 2015, pers.comm.). All the illustrators and publishers stated that the quality of Lebanese Arabic picture books has improved over the past few years. Illustrator J. A. (2014, pers.comm.) added:

> "Even if Lebanese picture books are still way behind compared to Europe or USA, Lebanon has made really big improvements and it is important to appreciate them."

Regarding this question, illustrator C. R. (2014, pers.comm.) replied "it has improved a lot in the past decade, but there is still a lot of work to be done". Their responses are similar to what the founder of Yuki Press publishing firm Ghandour (2013) explained, namely that even though Arabic picture books in Lebanon have huge gaps such as the lack of authenticity and cultural identity in the content and illustrations, the market has improved due to the emergence of few new publishing houses that work on raising the quality of content and illustrations of Arabic picture books. Also, respondents agreed that the Lebanese market for Arabic picture books is a small one compared to some other Arab countries for example Qatar, as well as Europe and U.S.A.

Most of the respondents highlighted the issue of children in Lebanon not reading a lot in the Arabic language and they explained that the main reason are the Lebanese parents who do not encourage their children enough. This could be supported with the explanation of Esseili (2011) that one of the important reasons related to the lack of Arabic education initiatives in Lebanon are the parents speaking foreign languages to

their children at home. Nasrallah (2012) also states that the Lebanese attitudes towards using foreign languages in general and English in particular are highly favorable in contrast to the Arabic language.

An important issue that the illustrators highlighted during the interviews is that when an Arabic picture book is being printed and released in Lebanon, publishers and bookstores are not working hard enough to promote it along with the Lebanese talents. The illustrators added that these publishers and bookstores prefer promoting English or French picture books. Illustrator J. A. (2014, pers.comm.) highlighted the idea that the media should play a significant role by presenting the new Arabic picture books that are being released and interviewing the corresponding illustrators who worked on them.

4.2.4 Illustration themes and styles that appeal to children

When asked about the themes that appeal to children, there were a number of responses. While five illustrators indicated that this question should be asked to children, the rest of the respondents said that children prefer themes related to animals and contexts similar to their own experiences. Sturm (2003) and Mohr (2006) stated that children prefer themes related to animals (refer to Section 2.7), while Valentine (2008) explained that the story needs to be related to the children's personal life experiences as much as possible (refer to Section 2.6). However, Sturm (2003) also mentioned science and sports (refer to Section 2.7) as being children's preferred themes as well. Some added humor (refer to Section 2.7) explaining that children love to laugh, which was also stated by Hoffman et al. (2012). Children like animals (refer to Section 2.7) because they are different and have the ability to adopt human behavior

(Hoffman et al., 2012; Burke and Copenhaver, 2004). Burke and Copenhaver (2004) added that introducing animals to stories (refer to Section 2.7) leads to a wide imagination and they are easier to illustrate their physical appearance in funny ways.

All of the respondents highlighted the importance of adapting picture books to the Lebanese context for Lebanese children (refer to Section 2.8). Picture books have been adapted to children from different countries or cultural backgrounds to suit their needs such as Africa (Yenika-Agbaw, 2011) and Latin America (Hadaway,Young and Ward, 2012). Illustrator K. D. (2014, pers.comm.) gave an example that a Lebanese child would better understand a story about an olive tree, rather than a Baobab which does not grow in Lebanon, unlike an African child who is more familiar with the Baobab. "We need to look around us and observe our daily life as Lebanese" added illustrator J. A. (2014, pers.comm.). Another response was that children love characters (young boys and girls like them) because they relate to them to understand the story better. Burke and Copenhaver (2004) talked about anthropomorphism (refer to Section 2.7), animal characters as people which attracts children and entices them to read the book. Additionally, some replied that puppets are appealing to children but this was not stated in the literature review. The illustrators and professors said that it is important to add small little details, little hints, funny patterns, little creatures or objects because children really enjoy them and become encouraged to read the story. Jalongo (2004) talks about the importance of these details as well. The professors explained that there is a new type of picture book, which is trending in European countries and the United States, and it entails modernizing an old or classic story by including only illustrations and no text to allow the children to create their personalized version of the story

(Antsey, 2003; Goldstone 2004). They added that taboo topics are also starting to emerge in Arabic picture books in Lebanon such as a friend fighting cancer or someone's grandmother who has Alzheimer's disease. Khattar (2009) highlighted the importance of integrating topics that worry Lebanese children in the Arabic picture books. I. G, (2015, pers.comm.) explained that children in Lebanon need things that help them understand the world and themselves like friendships and death and these are absent in Arabic picture books in Lebanon.

Regarding the styles that appeal to children, seven illustrators replied that they use colored ink that reflects a bright and vibrant light and depicts a colorful mood to the illustrations which look very appealing to children. Three added that they are exploring other techniques like collage and gouache paint. Illustrator Kattar (2014) said that using pieces of a Lebanese newspaper as part of the collage is one interesting approach that he is using which leads to a strong visual representation mixed with typography while using an object from daily life in Lebanon. Some respondents said that children must be exposed to all themes and styles and they might enjoy a book that includes black and white illustrations, depending on the story. However, previous studies have shown that children have theme preferences (refer to Section 2.7) and do not enjoy reading all types of themes and illustration styles (Sturm, 2003; Burke and Copenhaver, 2004; Mohr, 2006; Hoffman et. al, 2012). Regarding styles, Gallagher and Muir (2002) explain that it is preferable to use a mix of styles rather than a signle style, and one that is appropriate to the subject or theme of the picture book (refer to Section 2.8.10). Overall, the respondents agreed that thorough visual research should be done before working on the illustrations of the picture book to pick their elements wisely. Illustrator M. C. (2014, pers.comm.) added "my favorite technique is the cash technique"

which means that the amount of work that she puts into her illustrations depends on the amount of money that she is being paid. M. C. (2014, pers.comm.) explained the reason was because publishers do not pay illustrators much to create enough creative illustrations to fill the picture book pages and prefer to republish old publications, using the same artwork printed decades ago. The publishers also mentioned that the budgets for picture book illustrators are small in Lebanon. The respondent added that another typical case would be that they reprint books in foreign languages after translating them to Arabic while leaving the illustrations intact. Idriss (2013) and Sharafeddine (2013) highlighted that most Arabic picture books in Lebanon are translated from foreign languages into modern standard Arabic and do not entice children to read them.

4.2.5 *Effect of e-books*

The publishers and some illustrators mentioned that publishing industries are following trends nowadays to keep up with the market's demands and are more likely to promote the most popular visual technique, which is currently digital illustration for e-books; it frequently includes recordings of the text read-aloud, lively animations, music, video and various sound effects. They also added that children are found to especially respond well to these enhanced features. De Jong and Bus (2004), Grimshaw (2007), and Korat (2008) also explain that many companies are producing more e-books as they are effective in early literacy development, reading comprehension and language development for young children. They added that even though some stories might be visually stronger in another technique, the publishers stick to the most popular technique.

4.3 Analysis of the interviews with children

This section first describes the interviews with 180 children that took place in two different settings, Arabic and art classes in three different schools in Mount Lebanon. Then it analyzes children's responses to the questions which are divided according to the following seven criteria:

- picture book preferences and meaning
- color preferences
- theme preferences
- artistic style and medium
- cover and endpages
- size of book and page layout/hierarchy
- typography

Interviewing children during art class was easier and faster because they were seated on tables in groups so they were able to look at the picture books together, and they had an idea of the question that I was about to ask them since they heard me asking the child next to them. Also, my colleague and I were able to sit with them on the table, join their conversations and make them feel at ease. So, the seating arrangement is significant while conducting the interviews, however it is not something that can be controlled by the researcher. For instance, only art classes were requested in the English and French schools, but the principles did not accept and preferred to allow access to both Arabic and art classes. Moreover, there were no art rooms in the Arabic school that we visited. While in art classes, coloring pencils were available, and the research provided them when the interviews were conducted in other subject classes. However, when conducting the interview during an Arabic class and for the purpose of dividing the class into groups, the picture books were placed on the

teacher's desk and every two rows of children were asked to gather around by turn to have a look at the books. Then, they moved to the drawing activity after distributing to them the papers and coloring pencils. We passed by each child's desk to ask the remaining questions. When interviewing children during the pilot, my colleague was unable to record all their responses efficiently and I was not able to fill out my form since I had to run the interview as I held the books for children to see. For this reason, we had to change our approach of asking the questions and transcribing data and it was more efficient. The audio-recorder only records part of the data needed therefore transcribing notes is crucial.

When asked general questions about whether or not they like to read stories, the language of books they have at home, and their preferred language to read, 96 out of 180 children said they have few books but not in Arabic, 30 explained that they have many books but only one or two Arabic books. Most of the children stated that they prefer reading in English or French language and 10 out of 180 children said that they prefer reading in Arabic.

When asked for the reasons why they prefer foreign language books to Arabic ones, 23 out of 180 replied that their parents would not buy them Arabic picture books, and 160 children said that they are not appealing and that they prefer reading their French or English picture books. They used the terms "mesh helwin" and "besh'in" which mean respectively "not nice" and "ugly" in Arabic. Consequently, after they explored the picture books, pupils were asked whether they were also *ugly* Arabic books or not. They screamed "no". Also, an Arabic teacher who was supervising one of the classes during the interviews told me that some parents ask her not to blame

their children for not liking the Arabic language because they only speak in French at home. This also agrees with what Esseili (2011) and Nasrallah, (2012) explained about considering Arabic as a language inferior to English or French.

After conducting the interviews with children, their responses gave a clearer idea about the preferences of children regarding Arabic picture book illustration elements and how the elements can be improved. To be able to count the frequency for each question's response, a matrix was generated (using MS Excel), which was divided according to school and categorized according to critical issue, and presented according to the themes in the following sections.

4.3.1 Picture book preferences and meaning

Two classes of thirty children were interviewed from each school (5-6 and 6-7 years old). Some classes were interviewed during one whole Arabic session for 45 minutes and others during one whole art class in the art room depending on the schedules that were prepared by the English and French education school principals. The interviews in the public school were conducted during Arabic sessions. During Arabic classes, every two rows of children were asked to gather around the teacher's desk to look at the set of picture books presented for few minutes and they were asked to select the book that they would like to have to keep. Children in the art classes were already divided into three groups on long tables so the books were placed in front of them for a few minutes, each group by its turn. Children were really excited about the books and said that they loved reading stories. However, this approach caused some trouble because the children actually expected to take the books with them home right

after the interview. So, the question was then modified asking them which book is their favorite to tell the principal to buy it for their school library. They were also encouraged to participate and help us answer the interview questions by promising them a reward sticker. They yelled "yes!" and were excited about earning the sticker. In case the school had no library like the public school, the question was simply to select their favorite book. They were also asked to explain the reason for their selection. Some children chose the book based on the story's theme. Others based on the book's size and colors. Also, some children selected their favorite pages from few books in addition to their preferred book. When this part of the interview was over and the books were collected, most of the children wanted to make sure with the interviewers that they wrote down which book they chose expressing their great interest in owning their selected picture books. The frequency for each book selected by a total of 180 children was recorded and then tabulated in a spreadsheet. The results are shown in Figure 17 in an ascending order.
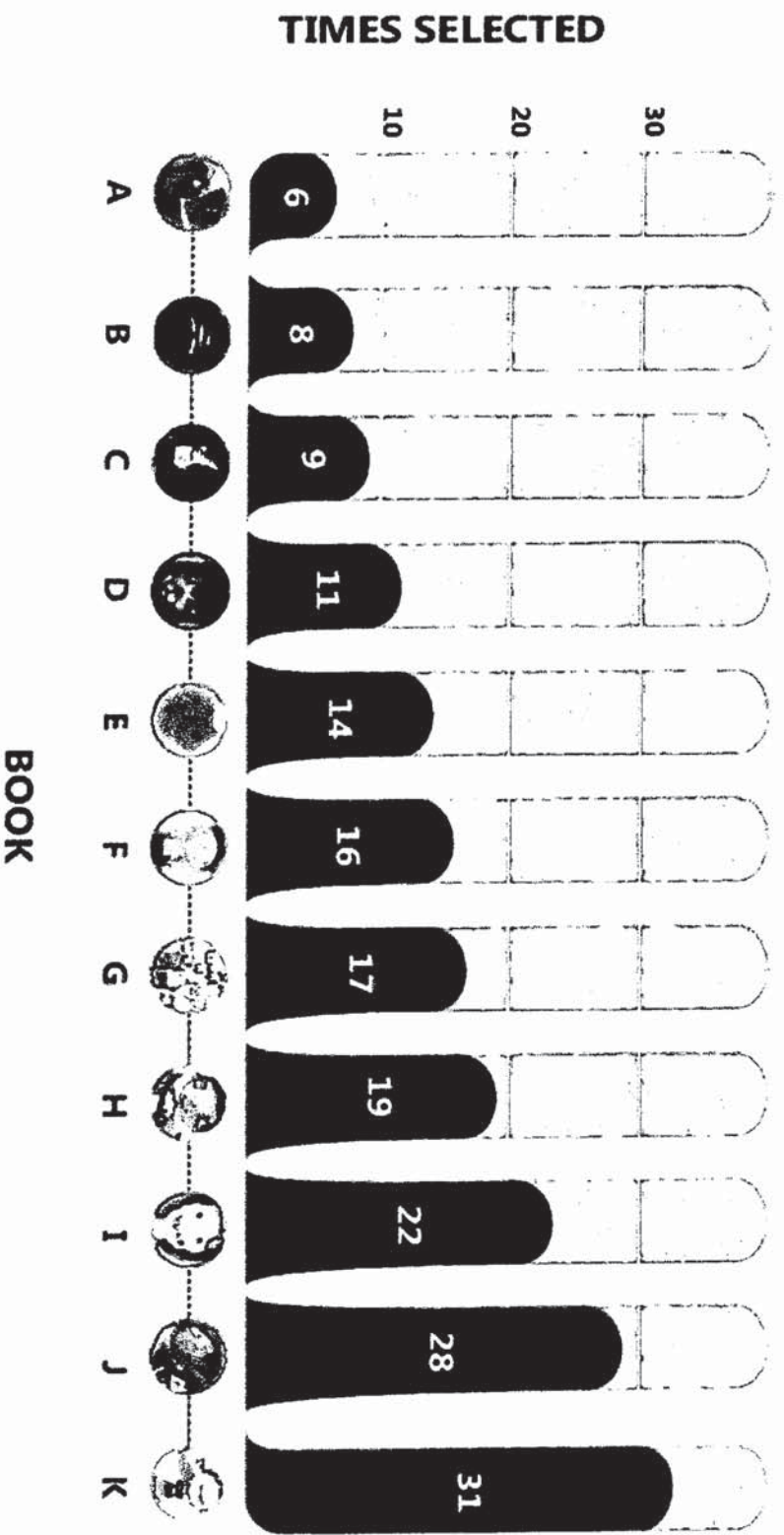
Figure 17. Frequency distribution of books selected by children, A to K referring to the books (refer to Appendix L)

Book K was selected the most by 31 children. When they were asked about the reason for selecting it, some children said that they love big books as explained by Russell (2009) (refer to Section 2.8.7). Other children explained that the character on the cover resembles superman which means that the cover (refer to Section 2.8.1) plays an important role in children's decision-making process as highlighted by Sipe (2001) and Yu (2007). Moreover, children find cartoon conventions (refer to Section 2.8) appealing (Horn's 1998 in Patel et. al, 2007) as well as adding some elements in the illustrations that remind them of their favorite cartoon characters, which is also related to integrating objects from children's personal experiences (Valentine, 2008). Also some children said that they like the colors used which is one of the important criteria (refer to Section 2.8.4) to consider when illustrating a picture book, also discussed by Pett and Wilson (1996), Elliot and Maier (2007), and Sipe (2008). The illustrations of Book K mainly use the compositional distinctions exaggeration and repetitions, which are some of the elements included in Horn's taxonomy of visual features directly related to the picture book design and were discussed by Patel et al. (2007) and Kazmierczak (2001). The faces or heads of the characters in this picture book are exaggerated in size and objects essential to the story are repeated on the same page. However, varying line weights is a powerful expressive tool an illustrator can use to define objects, suggest movement and distances, depict feelings and meanings as described by Taylor (2003), Sipe (2008), and Russell (2009), and this is missing in this picture book. Another thing that is missing is the concept of light and shadow, which is used to manipulate attention and to suggest symbolic meaning (Pett and Wilson, 1996). Moreover, there is no sign of the Lebanese culture within the illustrations and it is important to integrate relevant social and cultural

attributes to help children process knowledge and interpret worldviews (Piget, 1960; Messaris, 1994; Wadworth 1996; Gagnon and Côté, 2014). Despite the absence of many criteria, Book K was still the most highly selected. This means that some criteria have a greater effect more than others on making the book seem appealing to children.

Book J was the second most favorite book selected by 28 children who explained that they loved the colors used and that they also have sunglasses like the character in the illustrations. The Lebanese culture is reflected through the illustration of a traditional Lebanese house entrance with the organic arabesque stair holder, as well as the illustration of some Lebanese shop windows with the shop names written in Arabic.

What children did not like in Book A, the book that was least selected, was the fact that it lacked color. The book is illustrated in sepia color and in white and this was the main reason why they immediately cancelled it out from their list, even though some children said that they love playing the piano similar to the story's character.

Many children mentioned their parents while responding to this question. For instance, a child chose Book A because his father also plays the piano like the story's character. Another child chose Book C which is titled "Deek El Jabal" or "Mountain Rooster" because his father is going to build a house in the mountains. When a child chose Book G which talks about vegetables, she was asked if she likes tomatoes like the character. She said 'no, I love "tabboulé"'. Then the children were asked if they would like to read a book about 'tabboulé', they all raised their hands and yelled *yes* out loud. Regarding Book A, many children said it was "ugly" and commented "who reads a book

in black and white?" Moreover, some of the illustrations lead children to start conversations and short debates about the themes of the illustrations or the actions of the characters. For instance, when they saw the book about the boy who loves eating chocolate, a child started explaining that eating too much chocolate is not healthy and causes tooth cavity. Other children joined the conversation and expressed their opinions.

4.3.2 Color Preferences

Two different picture book pages were shown to both classes in the three schools, one with somber colors and another having vibrant colors. The majority of children, 133 out of 180, preferred the book with the vibrant colors and 47 preferred the one with the somber colors. Then, two different picture book pages were shown, one with cool colors and another with warm colors. Only 49 children preferred warm colors and 131 preferred cool colors.

When asked about their favorite color, the frequency for each color was collected and a matrix was generated (using MS Excel) (refer to Appendix N). Blue scored highest with a frequency of 40. Followed by red (31 children), purple (26 children) and pink (20 children). Some responses that were unexpected were five children preferring black, three preferring all fluorescent colors, six selecting white, five saying they like all the colors like the rainbow, and six preferring gold and silver colors.

Regarding color, Pett and Wilson (1996) had contradicting statements in their study. On the one hand, they explain that using bright warm colors such as red and yellow is appropriate for illustrations intended for young children, and on the other hand that the overall results in their study showed that cool colors rate highest. Since in this research

children preferred cool colors to warm ones and there are contradictions in the findings within the theoretical framework, more research is needed to be able to generalize this statement. Also, it was stated that children prefer vibrant colors rather than somber ones (Pett and Wilson, 1996) and the same result appeared in this research. Concerning the functional role of color and legibility, Arizpe and Styles (2003) and Ray (2010) reported that lettering is more legible with a white or neutral background than with colored backgrounds and this study showed the same results.

4.3.3 Theme Preferences

Children were excited to read about the books that had themes related to objects from their daily lives or illustrations of objects or situations that they related to, such as the boy's winter hat, the girl's sunglasses, chocolate, vegetables they like or dislike, and the girl who had lost a tooth. They were also very excited to read a book about the Lebanese "tabboulé" or the olive tree because they relate to them and they remind them of their past experiences (refer to Sections 2.6 and 2.8). Children were also very happy to draw and the prize stickers (refer to Section 3.3.2) encouraged them even more to complete the task. Refer to Appendix O for samples of children's drawings, in order to have an idea of their favorite themes and selection of colors. To be able to count the frequency of the themes emerging from the children's drawings, the drawings were divided according to school to examine similarities and differences based on their educational backgrounds, and then according to theme and are presented according to the following seven categories generated by children and listed from highest to lowest frequencies (refer to Appendix P): (1) Object from Daily Life/ Personal Experience, (2) Family and Love, (3) Animal/ Insect (4) Nature, (5) Science, (6) Cartoon/TV Show, and (7) Religion. The

category that got the highest frequency was object from daily life/personal experience (47 drawings), followed by animal/insect (39 drawings), nature (37 drawings, and family and love (33 drawings) which are close in frequency. Only 2 out of 180 drawings were about religion. Sturm (2003), Burke and Copenhaver (2004), Mohr (2006), and Hoffman et al. (2012) state that children prefer picture books with humor depicted through the illustrations, in addition to informational and non-fiction books especially the ones centered on animals (refer to Section 2.7). This study showed the same results. However, more research is needed to test whether children prefer books on animals more than object from daily life/personal experience since in this study the latter got a higher frequency.

4.3.4 Artistic Style and Medium

The artistic style of the top four picture books preferred by children in this research is cartoon with some depiction of humor and this result is in compliance with Hoffman et al. (2012) who state that children prefer picture books with humor depicted through the illustrations (refer to Section 2.7), as well as Horn (2001) and Patel et. al (2007) who discuss the cartoon conventions as being an essential visual element directly related to picture book illustration design (refer to Section 2.8). Textures are also integrated working together with the elements *line*, color and *shape* to determine style, add depth and spark the child's imagination as explained by Niranjan and Ahmed (2014). There is also a focus on perspectives and placement of shapes to highlight an issue. Most of the illustrations in these four picture books use the middle shots and give few close-ups and panoramic views just as Nikolajeva and Scott (2001) stated in their study. Regarding the type of medium used, a mix of digital illustrations with a collage of patterns is used in

Book K, and watercolor is used in Book J. The illustrations in Book I consist of a mix between oil pastel and gouache paint. Whereas a mix of watercolor, pencil drawing, collage of objects and patterns, and some minimal use of the digital application Adobe Photoshop is used in Book H , in addition to outlining the illustrations with black colored pencil. Therefore it is important to use cartoon and humor as artistic style of illustration (refer to Section 2.7), which are also represented through various perspectives (refer to Section 2.8.9). Moreover, a mix of drawing styles and media is preferred (refer to Sections 2.8.10 and 2.8.11).

4.3.5 Cover and endpages

The covers of the top four picture books communicate a mood and give them signals about the theme of the story, which is necessary according to (Sipe, 2001). Out of the top four books, the storyline of only Book H begins with the endpages. Starting the storyline with the cover, the endpages or the title page makes the picture book more interesting to children (Sipe, 2001). In addition, the top four selected books have their front and back covers connected to each other through illustrations creating a unified book cover according to (Sipe, 2001).

The endpages of Books K and J are designed as a repeated pattern with motifs important to the story, and those of Book I are printed in a color, which sets the mood for the story; these are the two ways to design endpages as Sipe (2001) explained. However, the endpages of Book H look like a wallpaper and lack motifs important to the story. Also, the color used is not significant to the story's mood. By contrast, Sipe and McGuire (2006) explain that endpages may be printed in a color which is chosen to set the mood

for the story. They are also designed as a stylized or repeated pattern with motifs important to the story (Sipe and McGuire, 2006).

4.3.6 Size of book and page layout/hierarchy

Children were more interested in large books rather than medium and small ones. Therefore, this result agrees with Pozzo's (2014) statement that large books are considered as eye-catching and are designed for children aged three and thirteen and that medium books are complex. Regarding page layout and hierarchy, more children read clearly (measured by the number of times they paused or read the words incorrectly) when the page layout was balanced and had a generous open space rather than a page with poor typesetting and a disorganized page layout, also stated by Sipe (2008) and Russell (2009). Moreover, reading a very animated page led some children to get confused about where to start reading from so they shuffled the paragraph order and the story made no sense. Their confusion was noticed when they took a few seconds to focus on the page before starting to read, and when they placed their finger at the beginning of the wrong paragraph to start reading.

Hierarchy of shapes is created by their placement on the page in the top four books creating a visual play which is important to children for encouragement and meaning construction (Read, 2013). Regarding the line lengths, all the books have short lines, which in turn simplify reading and look more inviting to children according to Woods et al. (2005). This was true for all books except for the second book, which has very long line lengths.

Therefore, the size of the picture book matters to children who find large books more eye-catching than smaller ones and illustrators should take it into consideration while

designing a picture book. Also, the page layout and hierarchy of information including the line lengths affect children's reading ability and hence they prefer to read the book with a simple balanced page layout and short line lengths,

4.3.7 Typography

Font Preferences

To test children's font preferences, three main issues were considered (refer to Section 2.8.12): serif and sans serif fonts, long and short ascenders/descenders, and angular and rounded counters. (refer to Appendix Q). Each school was used to sample a different font shape characteristic (refer to Section 3.3.2) and the results were the following:

- **School 1:** *Serif font* (28 children) | *Sans Serif font* (32 children)

- **School 2:** *Long Ascenders/Descenders* (38 children) | *Short Ascenders/Descenders* (22 children)

- **School 3:** Angular Counters (48 children) | *Rounded Counters* (12 children)

Whether the font had serifs or not did not make a difference with respect to children and this was also mentioned by Read (2013), but they preferred angular counters with long ascenders/descenders to rounded counters and short ascenders/descenders. What conflicts in these results with the literature review is that Walker and Reynolds (2005), Caglayan (2009) and Strizver (2013) stated that children prefer fonts for that have rounded and open counters but they were talking about Latin fonts therefore more research needs to be done on Arabic fonts to be able to generalize this issue. Also, the Arabic teacher who was supervising the interview session in the French education school

explained that all Lebanese children learn to read the Arabic language from books that use angular counters, which explains their preference. The English education school principal also highlighted the same issue. Also, the entire class of the Arabic education school did not know how to read the same word "ella" "ﻻ!" when rounded counters were used. Some children explained how they usually write it and they wrote it in a straight and angular form.

Font legibility with respect to page layout and hierarchy

To test font legibility with respect to page layout and hierarchy, three types of picture book pages were shown to children and were asked to read: balanced layout and clear hierarchy of information, poor typesetting and layout, and a page that has very animated text and illustrations (refer to Section 2.8.7). Each school was used to sample a different aspect of page layout and hierarchy (refer to Appendix R). The results were the following:

- **School 1 – balanced layout:** *Slow Reading* (14 children) | *Clear Reading* (46 children)

- **School 2 – poor layout:** *Slow Reading* (38 children) | *Clear Reading* (22 children)

- **School 3- animated page:** Confused (16 children) | *Clear Reading* (44 children)

These results indicate that more children read clearly when the page layout was balanced rather than having poor typesetting and page layout. Moreover, having a very animated page leads some children to get confused about where to start reading. The top four books have avoided the use of condensed or expanded typefaces, hairline or very

bold weights, and overly stylized italics, which according to Walker (2013), lead to confusion if used.

Font legibility with respect to font color contrast

To test font legibility with respect to color contrast, three aspects were considered: dark text on light colored and white background, white text on dark colored background, and colored text against black background (refer to Section 2.8.4). Each school was used to sample one aspect (refer to Appendix S). The results were the following:

- **School 1 – dark text against light colored and white background:**

  Slow Reading (18 children) | *Clear Reading* (42 children)

- **School 2 – white text against dark colored background:**

  Slow Reading (28 children) | *Clear Reading* (32 children)

- **School 3- colored text against black background:**

  Slow Reading (45 children) | *Clear Reading* (15 children)

The results suggest that more children read clearly when dark text is set against light colored or white background. Ray (2010) found white or neutral color to be the best background color. Arizpe and Styles (2003) reported that lettering is more legible with a neutral background than with colored backgrounds (refer to Section 2.8.4). Reading white text against dark colored background resulted in an almost equal number of children reading slowly and those reading clearly during the pilot. This was tested another time taking into consideration that the font was difficult to read and it might be the reason why children were taking a few seconds to concentrate on the font before starting to read. When tested again with the same group of children during a second encounter with a

simpler font, more children were able to read clearly. If one wants to compare the first two aspects, there was a difference of ten children more who were able to read dark text against light colored or white background in a clearer manner than white text against dark background. However, using colored text against black background led to confusion and slow reading.

4.4 Conclusion

This chapter presented the analysis of the interviews with Lebanese publishers of Arabic picture books, Lebanese illustrators, professors in children's education of Arabic literature, and children aged five to seven. Results are then compared to the established criteria and the findings within the conceptual framework to see which ones can be generalized. Results that are refuted in the criteria and the theoretical framework will be suggested for further research. The next chapter lists the concluded set of guidelines on how to enhance the quality of illustrations of Arabic picture books, and explains how they are applied on the redesigned Arabic picture book.

5. ESTABLISHED GUIDELINES AND THE REDESIGNED PICTURE BOOK

5.1 Introduction

This chapter lists the established guidelines related to the various categories of picture book illustration design (*cover, endpages, line, color, shape, texture, space and page layout, composition, perspective, style, medium, typography and text*) and explains how they are applied in the redesigned picture book. Then, another encounter is set with children to test this book and see if more children will select it than the number of children who selected the original book.

5.2 Establishing guidelines and applying them on the redesigned picture book

A list of guidelines elaborated from the literature review and deduced from the findings of the empirical work is established to enhance the quality of Arabic picture book illustrations in Lebanon. Moreover, this section explains how these guidelines are applied on Book A (refer to Appendices T and U), which was the book that the interviewed children liked the least, to demonstrate considerations that could change the perception of this book (refer to Appendix L for Book A's assessment table). The guidelines are listed below.

- *Integrating elements related to the Lebanese culture in the picture book illustrations through object, shape or color for example.*

The more the story is related to children's personal life experiences (refer to

Section 2.6), the more positive impact it has on both their motivation to read and their comprehension (Valentine, 2008). It is also important to integrate topics that worry children (refer to Section 2.7) which are also subjects that are part of children's everyday lives such as include bullying, family diversity, homelessness, and disabilities (Khattar 2009; Manklw and Strasser, 2013). Elliot and Maier (2007) explain that color can carry specific meaning and information including cultural meaning (refer to Section 2.8.4). Shapes are a powerful tool of communication and convey different moods and meanings (Niranjan and Ahmed (2014). For example, circular shapes depict tenderness, love, friendship, care, support, protection, and affection (Niranjan and Ahmed, 2014) (refer to Section 2.8.5).

The Lebanese culture is not integrated in the illustrations of this book. Therefore, in one of the pages, where the young boy Firas is playing the piano and singing, the words he is singing will be those of a well-known Lebanese song. Also, since Hala the other character in the story is competing in a painting competition in a certain municipality, Beirut municipality is chosen to be illustrated in the background where the competition is taking place since it is well-known and children might recognize it.

- *Motivating children to read by telling a second story through illustrations that allow children to find hidden objects, characters, or names or to predict what is going to happen next in the story.*

Illustrations in picture books lure children to read and interact with text by motivating them to find hidden objects, characters, or names or to predict what is

going to happen next in the story (Jalongo, 2004; Read, 2013) (refer to Sections 2.6 and 2.8.8).

Book A's illustrations are very straightforward; they are illustrating exactly what is written in the storyline without adding interesting objects or any suspense, also known as a page-turner. For example, illustrating Firas singing while taking a bath along with a bird that has landed on his bathtub adds to the story and depicts humor. Making his head look bigger with all the soap bubbles and having an object swimming inside his "bubble hat" also depicts humor.

- *Using principles of visual features such as compositional distinction or cartoon conventions.*

Horn's taxonomy of visual features entails elements which are directly related to picture book design; these include: the Gestalt theory, semantic attributes, cartoon conventions and compositional distinction principles (Kazmierczak, 2001; Horn 1998 in Patel et al. 2007; Patel et al. 2007; Hoffman et al., 2012) (refer to Section 2.8).

In the pages where Firas is playing the piano and Hala is showcasing her painting in front of an audience, the visual features spatial grouping and common regions have been used by the book's illustrator to convey the concept of audience as a collection of people enclosed together in one part of the page. Moreover, the cartoon conventions principle is also used in the illustrations which are: motion, emotion and speech balloons. For the purpose of redesigning the picture book, more principles of

visual features are applied such as repetition and exaggeration. Firas is illustrated three times on the same page in a sequential manner showing his actions of piano playing and singing. The same principle is used to illustrate Hala's act of painting. Also, exaggeration is used in the size of Hala's painting palette, which covers the book's entire spread.

- *Creating perspectives and hierarchy of shapes to highlight an issue such as middle-shots, close-ups and panoramic views.*

Illustrators need to choose the appropriate perspective (refer to Section 2.8.9) relevant to the text and illustrate events from the child's perspective (Nikolajeva and Scott, 2001; Gallagher and Muir, 2002; Patel et al., 2007; Salisbury and Styles, 2012).

Regarding this guideline, the illustrator has already applied it; therefore, it is maintained in the redesigned picture book with some additions to add more variety. Close-ups are used by the illustrator to focus on the hand clapping of the audience, on Firas' fingers playing the piano and mouth while singing, and on Hala's paint brush to focus on the action of painting. A panoramic view is used when Firas is on stage, illustrating the scene from the audience's perspective. Middle-shots are used in the pages where there is a focus on a single character such as the mayor who is stating the name of the winner or on Hala who is accepting her prize medal. What is added or modified is: instead of having Hala simply standing on the stage with the medal hung around her neck, her friends are carrying her on their shoulders to congratulate her as she carries a big award in her hand. The placement of the characters carrying Hala on

their shoulders, and Hala holding up her award pointed towards the ceiling forms the shape of a pyramid creating clear hierarchy of information, the award being on top of the pyramid. Therefore, the page focuses first on the prize, then on Hala, then on her friends carrying her.

- *Designing large books rather than small or medium ones.*

Large books are considered as more eye-catching to children aged three and thirteen than small or medium ones (Russell, 2009; Pozzo, 2014) (refer to Section 2.8.7).

The size of Book A is increased by 6cm in height and width to render it a common large sized book (29x29cm) to make it more appealing to children while maintaining its square shape.

- *Considering humor depicted through cartoons as an artistic style.*

Children prefer humor and mystery to scary or horror stories, and a slight preference for humor over mystery (Hoffman et al., 2012) (refer to Section 2.7).

The artistic style used by the illustrator is more realistic than cartoonish and there is no depiction of humor in any of its illustrated pages. For this reason, the style is replaced by cartoons to illustrate all the elements of the story and to depict humor.

- *Creating informational and non-fiction books including animal-centered ones.*

Children between ages five and seven prefer informational and non-fiction books especially the ones that are centered on animals (Sturm, 2003; Burke and Copenhaver, 2004; Mohr, 2006) (refer to Section 2.7).

Book A is already a non-fiction book and it includes a bird and a butterfly, but to make illustrations more interesting, a cat is added that accompanies Firas while playing the piano and watches him during his practice, and the small butterfly that is barely noticeable is not really doing anything in the illustration therefore I replaced it by an elephant with colorful features that not only inspire Hala to paint, but also attract children to read the page.

- *Using vibrant colors and avoiding somber ones.*

Children prefer and tend to focus on bright colored objects in a field of dull colors (Nodelman, 2001) (refer to Section 2.8.4).

Book A is illustrated only sepia and white throughout the book with minimal colored strokes which children found very dull. Vibrant colors are used instead.

- *Applying the concept of light and shadow and varying line weights to convey meaning.*

Illustrators can distinguish different line (refer to Section 2.8.3) meanings by using a variety of line thicknesses (Taylor, 2003; Sipe, 2008; Russell, 2009). They

can also use light and shadow to both manipulate attention and to suggest symbolic meaning (Pett and Wilson, 1996). Also, Salisbury and Styles (2012) indicated that brightness contrast is the most critical factor in legibility (refer to Section 2.8.4).

This guideline is already applied but applying them with color rather than only white and sepia will look more appealing to children and it will be validated when testing the redesigned book.

- *Choosing white or neutral backgrounds instead of colored ones to make text more legible.*

Concerning the functional role of the color and legibility, Ray (2010) found the ranking of background colors from best to worst to be white, yellow, green, red and blue. Similarly, Arizpe and Styles (2003) reported that lettering is more legible with a neutral background than with colored backgrounds (refer to Section 2.8.4).

Black text is placed on white or light and darker tints of sepia color. In the redesigned book, black text will be placed on white or light colored backgrounds.

- *Creating a balanced page layout with generous open space.*

While the lack of open space on a page may contribute to a claustrophobic, uneasy feeling, the generous use of space suggests quiet serenity or in some cases emptiness and loneliness (Russell, 2009). Space can also create the illusion of

distance (Sipe, 2008) (refer to Section 2.8.7).

The page layout is poor since it is monotonous and lacks open space since the illustrations are all fit into a square on a white background and text is placed above the square. In the redesigned version, more open space is provided for the illustrated pages, creating different balanced page layouts to keep the child interested in reading. This is achieved by avoiding boxing the illustrations inside a square shape, but rather allowing the illustrations to flow freely on the page without borders. Also, the placement of the text is varied depending on the illustrations on the page, so it is not always placed on the top right side as in Book A.

- *Ensuring that the book's cover communicates a mood and give signals about the story's theme.*

All the elements of the picture book which children see before arriving at the text opening must communicate a mood and give them signals about the theme of the story (Sipe, 2001; Yu, 2007). Kearns (2001 in Yu 2007) explains that children use visual cues like book jackets and cover pictures to explore relevant information (refer to Section 2.8.1).

Book A's cover shows the story's two characters but the way they are framed in two squares against a mountain view is not appealing according to children and does not reflect the story's theme. The cover of the redesigned book has Firas on the front

cover playing the piano and Hala on the back cover showcasing her painting in the competition.

- *Unifying the book's cover front and back covers.*

Sipe (2001) and Sipe and McGuire (2006) explain that the front and back covers should be connected to each other through illustrations or typography to create a unified book cover (refer to Section 2.8.1).

Book A's covers are connected to each other with the mountainous view starting in the front cover and continuing all the way back in the back cover. But it does not reflect any meaning regarding the story. As previously stated, the book's cover will be unified by showing each character on one side as if the two stories are being told each on one side.

- *Considering a repeated pattern with motifs important to the story in the end pages.*

Sipe and McGuire (2006) explain that endpages may be printed in a color which is chosen to set the mood for the story. They are also designed as a stylized or repeated pattern with motifs important to the story (Sipe and McGuire, 2006; Patricelli 2013) (refer to Section 2.8.2).

Since Book A lacks endpages, they are added in the redesigned book having a repeated pattern of the cat and the elephant that are part of the story's illustrations as

well as inspiration to the characters.

- *Keeping line lengths short.*

It is central to keep line lengths short, and to avoid putting too much text on a page to design a well-balanced page layout; dense blocks of type can be very intimidating to children (Woods et al. 2005; Hoffman et al., 2012; Strizver, 2013; Walker, 2013) (refer to Sections 2.8.7 and 2.8.12).

Book A has used few words in a sentence and only one or two sentences per page. Therefore, this guideline has been applied by the illustrator.

- *Avoiding condensed or expanded typefaces as well as hairline or very bold weights, and overly stylized italics.*

To avoid confusion, illustrators and graphic designers need to avoid using condensed or expanded typefaces, hairline or very bold weights, and overly stylized italic. Consequently, confusion can cause children to read slowly, struggle with pronunciation; it can also make the picture book seem less appealing (Woods et al., 2005; Caglayan, 2009; Strizver, 2013; Walker, 2013) (refer to Section 2.8.12).

The book has used one regular Arabic font with medium weight to tell the story. It has also used a bold and overly stylized font with the sentences taking the form of waves when Firas is singing. For the purpose of legibility, a regular Arabic font is used while avoiding condensed/ expanded typefaces, hairline/very bold weights and

overly stylized italics as per the guideline. Also, the singing would be illustrated in regular straight lines but in speech bubbles.

- *Using typefaces with long ascenders and descenders rather than short ones.*

The approach of selecting typefaces that have generous ascenders and descenders, a clear distinction between characters that are confusing and no unusual characters, helps children to read more efficiently. Moreover, typefaces with larger x-heights are generally easier to read than those with short x-heights, and this is especially true for children (Felici, 2003; Walker and Reynolds, 2005; Caglayan, 2009; Strizver, 2013).

The font used in the book has regular length ascenders and descenders but the one used instead in the redesigned book has longer ascenders and descenders.

5.3 Testing the Redesigned Book

After printing the redesigned book, I revisited the public school since I had a written consent from the Ministry of Education and Higher Education that allows me to visit it over a period of one year. The same group of 60 children who were interviewed during the first encounter were given time to view all of the eleven picture books, but this time having the redesigned book included rather than the original book. Consequently, they were asked to select their favorite one, explaining why. Figure 18 shows the frequency distribution of books selected by children.
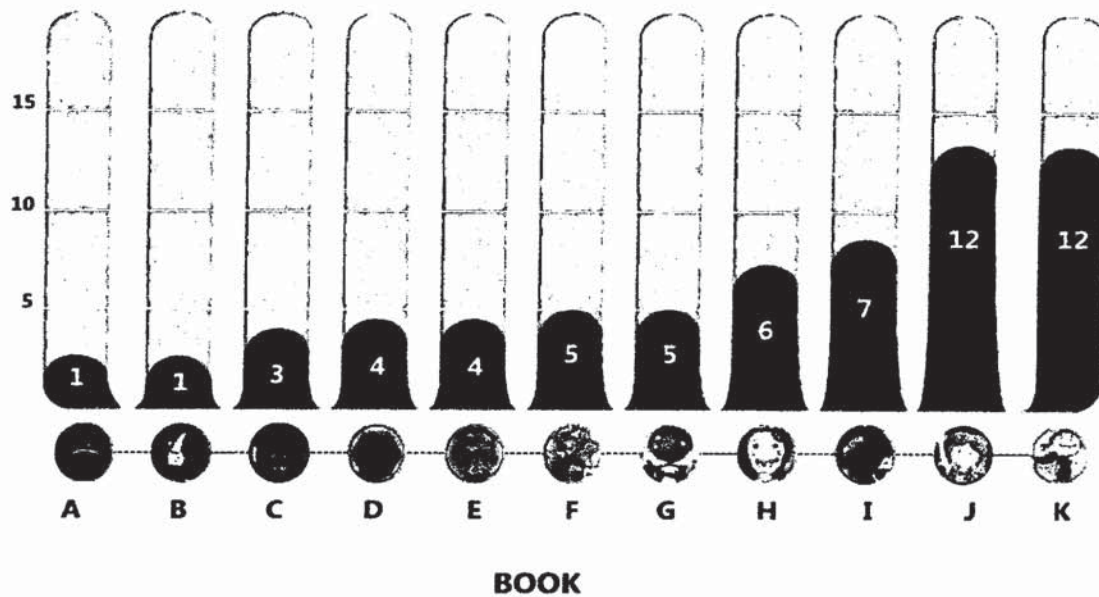
BOOK

Figure 18. New frequency distribution of books selected by children after including the redesign book.

The redesigned book *Hikayatan* (Mouhaidly, 2006) and Book K *Aendama Maridat Sadiqaty* (Barraj, 2011) were preferred the most by children and they got an equal number of frequency which is 12 (refer to Appendix L). Book I, *Ana Aydan Oureed* (Barraj, 2007), was the third most favorite book selected by children. Regarding the book that children preferred the least in the new frequency distribution, the result was Book A, *Kayfa Sertou Qubaa Souf* (Qoreitem, 2012). After comparing the previous frequency distribution of books with the one shown above, results showed that the redesigned book was able to increase children's demand on it from 11% to 60%. This implies that the established guidelines that were applied in the redesigned book are valid and attracted children to read the book.

5.4 Conclusion

This chapter has illustrated what changes could be made to Book A by applying the established guidelines. It is important to note that there was no intention to offend the

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creativity of the author and illustrator of Book A, and that the intention was purely experimental. Also, this research requires that the book's author and illustrator be contacted prior to the suggestion of any changes, and to learn more about constraints that led to the design and illustrations. The picture book that is being enhanced might also have applied few of these guidelines such as in the case of Book A, but the rest of the elements that need improvement have rendered the book less appealing. For example, in Book A, the illustrator has used the concept of light and shadow but since only sepia color and white are used, a dull mood is depicted. By referring to these guidelines, illustrators of Arabic picture books in Lebanon can know what part of their work needs improvement. The fact that illustrators need to showcase creativity and innovation in parallel to these guidelines cannot be avoided (Blaiklock, 2010; Swan, 2002).

6. CONCLUSION

This research focuses on improving the quality of illustration design of independent Arabic picture books for children aged five to seven in Lebanon, with the aim to increase readership and learning in the Arabic language among them and to guide illustrators in enhancing the quality of their picture book illustrations. Lebanese illustrators need to work further towards implementing empathic design in Lebanon to address this design issue and look at it through the eyes of children and to boost the overall experience of reading in the Arabic language. This concluding chapter explains how the research question and objectives were addressed through the various thesis chapters. Recommendations for further research are also provided.

6.1 Research Overview

The theoretical framework underpinning this research is based on pedagogical and graphic design literature. It is also based on illustration design literature on communication through visual language and the contemporary approach of including end-users in the design process focusing on empathic design method. Other illustration design themes that are explored include the influence of illustrations on young readers, and children's preferences related to picture book themes and illustration design elements. These design elements include the cover, endpages, line, color, shape, texture, space and page layout, composition, perspective, style, medium, typography and text (Sipe 2008; Russell, 2009; Caglayan, 2009; Serafini and Clausen, 2012).

Drawing on approaches learned from the theoretical framework, and investigating children's picture book illustration design practice and principles in Lebanon, empirical

data was collected through various interviews with illustrators and publishers of Arabic picture books in Lebanon, professors in children's literature and children aged five to seven. A set of criteria was then established to evaluate and select Arabic picture books and test them with their end-users. The results were first analyzed using both pattern-matching and cross-case synthesis strategies (Yin, 2014). Then, they were compared to the findings within the conceptual framework to establish a set of guidelines on how to enhance the quality of Arabic illustrated picture books in Lebanon that can be used by illustrators.

In order to answer the research question: *How should illustrators in Lebanon incorporate the needs of children aged five to seven to make independent Arabic picture books more appealing to them?* and establish a list of guidelines to be used by illustrators in Lebanon, five research objectives were set. The following explains how these objectives were met.

To investigate children's picture book illustration design practice and principles. This was answered in the literature review where key terms were defined, and an explanation on how children make meaning of perceived elements was provided along with the importance and influence of illustrations on young readers.

To establish criteria to evaluate Arabic picture book illustrations and test them with their end-users. The criteria were established based on the findings on design elements of an illustrated picture book within the conceptual framework. Eleven Arabic picture books were then selected from bookstores in Lebanon. Moreover, they were tested with one

hundred and eighty children from three different schools in Lebanon by conducting interviews within a case study methodology.

To explore children's preferences of illustrated picture book themes and design elements. This was addressed through exploring children's preferences in the literature review, by conducting interviews with children, and by engaging them in a drawing activity. Asking children to draw without specifying themes allowed them to express themselves freely and gave signicant information about their theme and color preferences (Moraveji et. al (2007); (Gielen, 2008); Naranjo-Bock (2011); Culén, Bratteteig, Pandey, & Srivastava (2014)).

To establish a set of guidelines on how to enhance the quality of Arabic illustrated picture books in Lebanon that can be used by illustrators. This was achieved through the analysis of interviews with Lebanese illustrators and publishers, professors in children's education of Arabic literature, and children aged five to seven and the comparison of the results to the findings in the literature review.

To redesign an Arabic illustrated picture book. This redesign of one book was based on the findings drawn from the literature review and on the anaylsis of the interviews with Lebanese illustrators and publishers, professors in children's education of Arabic literature, and children aged five to seven.

In terms of meaning (refer to Section 2.9.1), results showed that it is important to integrate elements related to the Lebanese culture in picture book illustrations. Also,

illustrators need to use elements of compositional distinctions such as exaggeration and repetition as per Horn's (1998 in Patel et al. 2007) taxonomy of visual features. Illustrators also need to use perspectives and focus on hierarchy of shapes (refer to Sections 2.9.8 - 2.9.6) to highlight an issue such as middle-shots, close-ups and panoramic views. With respect to the size of the book, children preferred large and medium sized books to small ones. Regarding theme (refer to Section 2.7), they preferred books with humor, informational and non-fiction books including animal-centered ones. As for color (refer to Section 2.9.5), results showed that children preferred vibrant colors to somber ones. Moreover, the concept of light and shadow and varying line weights (refer to Section 2.9.4) must be used to convey meaning. In terms of page layout (refer to Section 2.9.8), results showed that more children read clearly when the page layout was balanced and had generous open space rather than poor typesetting and a disorganized page layout. Regarding the cover and endpages (refer to Sections 2.9.2 – 2.9.3), the research revealed that these pages should communicate a mood and give signals about the story's theme. In addition, the front and back covers must be connected to each other as well as to the story's content and mood through illustrations or typography to create a unified book cover. Endpages must be designed as a repeated pattern with motifs that are pertinent to the story. Finally, regarding typography and text, condensed or expanded typefaces need to be avoided as well as hairline or very bold weights, and overly stylized italics since they lead to confusion. Moreover, children preferred typefaces with long ascenders and descenders rather than short ones.

6.2 Recommendations

In this paragraph, some recommendations are stated for further research based on what was not included in the scope of this research as well as research limitations. First, some further elaboration of the literature review would benefit this research, for example literature on the parents' role in increasing the readership of Arabic picture books in Lebanon such as Furrer and Skinner (2003) and Esseili (2011). The topic of e-books, their advantages in children's education and their effects on printed books in Lebanon is a rich and fertile ground for study and analysis, also discussed by De Jong & Bus (2004),Verhallen, Bus, and De Jong (2006), Chau, (2008) and Picton (2014). Second, integrating more children participants from different schools could give more insight or lead to different results regarding their preferences of picture books themes and design elements. Third, studying picture book shape, weight, and special effects like embossing or spot U.V., which gives a glossy effect studied by Peltola (2006), for example, could help explore further guidelines regarding children's preferences of picture book illustration design elements. Fourth, studying children's preferences of cool versus warm color palettes needs to be considered in further research. While the results of the analysis showed that children prefer cool colors, there were two contradicting results in the findings within the theoretical framework. Fifth, regarding typography, future research on children's preference of Arabic typefaces with angular versus rounded counters is necessary since the results of the analysis and the findings within the theoretical framework were contradicting. Finally, children participants from rural schools could also be integrated to be able to make generalizations on a wider geographical scope. Including children from different income brackets and population of major Lebanese

towns and cities, diverse income brackets of children's families, and religious backgrounds might lead to different results on their preferences of picture books themes and design elements.

Children who participated in this research provided significant information on many aspects of their personal experience. Interviewing them provoked children's way of thinking as well as their preferred reading themes and illustration elements since they love to answer questions like "what" and "why". The information seeking and meaning making activities involved in processing information in picture books reflect a child's learning experience and interest in the books. As a 6-year-old boy replied to one of my interview questions "I love reading my books at home, because they are magical".

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APPENDIX A. LIST OF SCHOOLS IN LEBANON – SAMPLE PAGE

رسمي/خاص	المنطقة	اسم المدرسة	رقم المدرسة
رسمي	بيروت	الاورغواي للصبيان – الاشرفية الاولى الرسمية	1
رسمي	بيروت	التباريس الرسمية للبنات النموذجيه	2
رسمي	بيروت	الرميل الرسمية المختلطة	3
رسمي	بيروت	الاشرفية الثالثة المتوسطة الرسمية المختلطة	4
رسمي	بيروت	ثانوية الاشرفية الاولى الرسمية للبنين	5
رسمي	بيروت	ثانوية الاشرفية الثانية الرسمية	6
رسمي	بيروت	سلمى الصايغ الرسمية للبنات	7
رسمي	بيروت	ثانوية لور مغيزل الرسمية للبنات	8
رسمي	بيروت	متوسطة الاشرفية الرسمية المختلطة	9
رسمي	بيروت	كرم الزيتون المتوسطة المختلطة الرسمية	10
رسمي	بيروت	متوسطة بيروت العالية الرسمية للبنات	12
رسمي	بيروت	المصيطبة الرسمية للصبيان	13
رسمي	بيروت	مدرسة حوض الولاية الاولى الرسمية المختلطة	14
رسمي	بيروت	المستقبل الرسمية المختلطة	15
رسمي	بيروت	زقاق البلاط الرسمية المختلطة	16
رسمي	بيروت	البنات الثانية الرسمية	17
رسمي	بيروت	ثانوية المفتي الشهيد حسن خالد (سابقا حوض الولاية)	19
رسمي	بيروت	روضة برج ابي حيدر الرسمية المختلطة	20
رسمي	بيروت	وطى المصيطبه الرسمية المختلطة	21
رسمي	بيروت	ثانوية زهيه سلمان الرسمية (سابقا وطى المصيطبة)	22
رسمي	بيروت	النموذجية الرسمية المختلطة	23
رسمي	بيروت	ثانوية فخر الدين المعني الرسمية للبنات	24
رسمي	بيروت	متوسطه الملك سعود الرسمية للبنات	25
رسمي	بيروت	الارشاد الرسمية للبنات	26
رسمي	بيروت	المزرعة المتوسطة الرسمية الاولى للصبيان	27
رسمي	بيروت	المزرعة الاولى الابتدائية الرسمية للبنات	28

APPENDIX B. LETTER OF CONSENT – ENGLISH EDUCATION SCHOOL

NOTRE DAME UNIVERSITY
—LOUAIZE—
جامعة سيدة
الــــويــزة

Date: 30-01-2015

Greetings,

My name is Aline Bezirjian and I am a graduate student at the Faculty of Architecture, Art and Design, NDU-Louaize. As part of my master's thesis in the "Master of Art in Design" program, I am working on a research entitled *"Towards Connecting with Children: Developing Creative Arabic Illustration Talents in Lebanon"*. The purpose of the project is to set criteria for Lebanese illustrators of Arabic children's books for the integration of children's needs in the age group five to seven in Arabic picture book illustration design practices in Lebanon.

Because your school implements a trilingual system focusing on English as a medium of education, and you aim to give your students the opportunity to be proficient in the three languages, I would be grateful if you support this research by facilitating pupils in the age group of five to seven to participate in an exercise on February 06, 2015 in your school. If so, I will also send a letter of consent to their parents/guardians.

I will meet *two groups* of 30 children (aged 5-6 and 6-7). The encounter will take place preferably during their art and craft class. First, they will be presented with eleven Arabic picture books and they will be asked *questions* regarding their preferences of any illustration theme and element over others. Then, they will be participating in a drawing activity allowing each child to draw whatever theme he/she is interested in.

By participating in the exercises, pupils' responses to Arabic illustrated books and artwork will help in setting design criteria for illustration design to make it more attractive in this manner. They will be assisting in designing for the Lebanese children of the same generation.

Regarding the exercise:

- Participating is completely voluntary
- Participants will be supervised by the class teacher
- Ms. Emilie Houwat, a graphic designer will be assisting me in the project
- Participants have the free choice to withdraw, whenever they decide to
- The research will have no impact on pupils' attendance in class or on their grades.
- No personal information will be needed about the pupils except for their age, gender, and place of residence
- No video recording will take place; only sound recording during the interviews and notes will be taken during the encounter with the pupils

If you require additional information or have questions, please do not hesitate to contact me at:
Mobile: 03-088 037 | *Email:* alinebezirjian@hotmail.com

Thank you in advance for your understanding and cooperation,

--·--

FAAD Dean's Signature:

DEAN
FACULTY OF
ARCHITECTURE
ART & DESIGN

School Principal's Signature:

APPENDIX C. LETTER OF CONSENT – FRENCH EDUCATION SCHOOL

NOTRE DAME UNIVERSITY
—LOUAIZE—
جامعة سيدة
اللـــــويزة

Date: 30-01-2015

Cher Monsieur,

Mon nom est Aline Bezirjian et je suis une étudiante diplômée à la Faculté d'Architecture, Art et Design, NDU-Louaize. Dans le cadre de ma thèse de maîtrise dans le programme "Master of Art in Design", je travaille sur une recherché titrée "Connecter avec des Enfants: *Développement de Talents d'Illustrations Créatives au Liban*". Le but du projet est de définir des critères pour les illustrateurs libanais des livres d'images en arabes pour enfants pour l'intégration des besoins des enfants dans le groupe d'âge de cinq à sept dans les pratiques de conception des livres pour enfants en Arabe au Liban.

Sachant que votre établissement met en œuvre un système trilingue en concentrant sur le français comme outil d'éducation, et que vous visez pour donner à vos étudiants l'opportunité d'être compétent dans les trois langues, je vous serai reconnaissante si vous soutenez cette recherche en permettant les élèves dans le groupe d'âge de cinq à sept à participer à un exercice le 5 Février 2015 dans votre école. Si vous êtes d'accord, j'enverrai également une lettre de consentement à leurs parents.

Je rencontrerai *deux groupes* de 30 enfants (5-6 et 6-7 ans). La rencontre aura lieu dans leur classe. D'abord, ils seront présentés avec onze livres d'images en arabes et je leur poserai des questions au sujet de leurs preferences.

En participant à ces exercices, les réponses des élèves aideront à mettre les critères d'illustration pour rendre les livres d'images en arabes plus attirants.

En ce qui concerne l'exercice:
- La participation est entièrement volontaire
- Les participants seront surveillés par l' enseignant de la classe
- Mlle Emilie Houwat , une graphic designer, m'aidera dans le projet
- Les participants ont le choix de se retirer
- La recherche n'aura aucun effet sur les notes des élèves
- Aucune information personnelle sur les élèves ne sera nécessaire, sauf pour leur âge, le sexe, et le lieu de residence
- Aucun enregistrement vidéo n'aura lieu; seulement un enregistrement audio

Si vous désirez des renseignements supplémentaires, ou si vous avez des questions, s'il vous plaît n'hésitez pas à me contacter au:

Mobile: 03-088 037 | *Email:* alinebezirjian@hotmail.com

Veuillez agréer, cher Monsieur, mes salutations respectueuses,

----

Signature du Doyen de la Faculté:

DEAN
FACULTY OF
ARCHITECTURE
ART & DESIGN

Signature de Directeur d'École:

CHAMPVILLE
Joumana ABBOUD
Préfet Cycle des maternelles

APPENDIX D. LETTER OF CONSENT – ARABIC EDUCATION SCHOOL
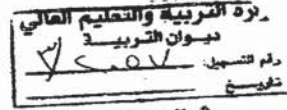
وزارة التربية والتعليم العالي
ديوان التربية
رقم التسجيل: ٧
تاريخ
٢٩ كانون الثاني ٢٠١٥

نوق مصبح ٢٠١٥/٠١/١٥

سعادة مدير عام التربية

تحية طيبة وبعد،

إن فرع الهندسة المعمارية في كلية الهندسة المعمارية والفنون والتصميم، جامعة سيدة اللويزة، نوق مصبح، تتقدم منكم بطلب مساعدة الطالبة ألين بازيرجيان (رقم الطالبة ٢٠١٢١١٧٧) في تحضير الأبحاث والاجتهادات ذات العلاقة بتنفيذ مشروع الماجستير.

المساعدة المتوخاة هي الحصول على :
١- لائحة بأسماء المدارس الرسمية وعناوينها
٢. اذن بالسماح لها بالدخول الى المدارس الرسمية لاجراء بحث ميداني

مع كل الشكر والتقدير لما تقدمون للطلاب وانشطتهم.

• متوسطة أنطلياس الرسمية المختلطة (١٤١)
• ثانوية أنطلياس الرسمية (142)
• إبتدائية النبع الرسمية المختلطة (139)

03/088037

عميد الكلية
الدكتور جان بيار الأسمر

الأستاذة المشرفة
الدكتورة كريستين ماضي

الجمهوريـــة اللبنانيـــة
وزارة التربية والتعليم العالي
المديرية العامة للتربية

رقم الصادر: ٣/٢٠٥٧
بيروت في

جـــانب ـ مديرية التعليم الثانوي
ـ مديرية التعليم الابتدائي

<u>الموضوع</u>: تسهيل مهمة الطالبة الجامعية ألين بازيرجيان.
<u>المرجـــع</u>: كتاب جامعة سيدة اللويزة ـ كلية الهندسة المعمارية والفنون والتصميم
تاريخ ٢٠١٥/١/١٥.

إشارة إلى الموضوع والمرجع المبينين أعلاه،

للتفضل بالاطلاع مع الموافقة على السماح للطالبة في جامعة سيدة اللويزة ـ كلية الهندسة
المعمارية والفنون والتصميم ألين بازيرجيان بدخول متوسطة أنطلياس الرسمية المختلطة، ابتدائية
الضبية الرسمية المختلطة وثانوية أنطلياس الرسمية خلال العام الدراسي ٢٠١٤/٢٠١٥ من أجل
إجراء بحث ميداني لإعداد أطروحة لنيل شهادة ماجستير حول موضوع: "تحسين تصميم الرسوم
الخاصة بكتب الأولاد المدرسية في المرحلة الأساسية للفئة العمرية ما بين ٥ و٧ سنوات، من أجل
التشجيع على المطالعة والقراءة باللغة العربية"، على أن يصار إلى التنسيق مع إدارة كل من
الثانوية والمدرستين بغية تنفيذ المطلوب وتأمين حسن سير العمل فيها./.

المدير العام للتربيـة

فادي يرق

127

جـانب جامعة سيدة اللويزة
كلية الهندسة المعمارية والفنون والتصميم

الموضوع: تسهيل مهمة الطالبة الجامعية ألين بازيرجيان.
المرجع: كتابكم تاريخ ٢٠١٥/١/١٥.

إشارة إلى الموضوع والمرجع المبينين أعلاه،

نحيطكم علماً بموافقة المديرية العامة للتربية على طلبكم السماح للطالبة الجامعية **ألين بازيرجيان** بدخول متوسطة أنطلياس الرسمية المختلطة، ابتدائية الضبية الرسمية المختلطة وثانوية أنطلياس الرسمية خلال العام الدراسي ٢٠١٤/٢٠١٥ من أجل إجراء بحث ميداني لإعداد أطروحة لنيل شهادة ماجستير حول موضوع: "تحسين تصميم الرسوم الخاصة بكتب الأولاد المدرسية في المرحلة الأساسية للفئة العمرية ما بين ٥ و٧ سنوات، من أجل التشجيع على المطالعة والقراءة باللغة العربية"، على أن يصار إلى التنسيق مع إدارة كل من الثانوية والمدرستين بغية تنفيذ المطلوب وتأمين حسن سير العمل فيها./.

المدير العام للتربية

فادي يرق

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APPENDIX E. PARENTAL LETTER OF CONSENT

NOTRE DAME
UNIVERSITY
جامعة سيدة
النـــــاصرة

Date: 3-02-2015

Dear Parents,

My name is Aline Bezirjian and I am a graduate student at the Faculty of Architecture, Art and Design, NDU-Louaize. As part of my master's thesis in the "Master of Art in Design" program, I am working on a research entitled *"Towards Connecting with Children: Developing Creative Arabic Illustration Talents in Lebanon"*. The purpose of the project is to set criteria for Lebanese illustrators of Arabic children's books for the integration of children's needs in the age group five to seven in Arabic picture book illustration design practices in Lebanon.

The school principal has granted me permission to conduct this study in your child's school. I would be grateful if you support this research by allowing your child to participate in an activity in the school.

The encounter will take place during their class. Arabic picture books will be shown your child will be asked questions regarding his/her preferences. Then a drawing activity allowing will take place and your child will be rewarded with stickers.

Regarding the activity:
- Participating is completely voluntary
- Your child will be supervised by the class teacher
- Ms. Emilie Houwat, a graphic designer will be assisting me in the project
- The research will have no impact on your child's attendance in class or on their grades.
- No personal information will be needed about your child except for his/her age, gender, and place of residence

Sincerely,
Aline B.

I have read and understood the request for my child to participate in the study, and:

☐ I give permission for my child to participate

☐ I do not give permission for my child to participate.

Date: _____
Signature of Parent/Guardian: _____

APPENDIX F. INTERVIEW CALENDAR - CHILDREN

School	Date	Time	Age Group	Class Subject	Duration
School 1	February 04-2015	8:00	5-6yrs	Arabic	50 min
School 1	February 04-2015	11:00	6-7yrs	Art	50 min
School 1	February 05-2015	8:00	5-6yrs	Arabic	50 min
School 1	February 05-2015	9:00	6-7yrs	Arabic	50 min
School 2	February 10-2015	11:00	5-6yrs	Art	60 min
School 2	February 10-2015	13:00	6-7yrs	Art	60 min
School 3	February 13-2015	9:00	6-7yrs	Arabic	50 min
School 3	February 13-2015	11:00	5-6yrs	Arabic	50 min

APPENDIX F. INTERVIEW CALENDAR - ILLUSTRATORS

Illustrator	Date	Time	Place	Duration
J.A.	May 08-2014	11:00	Dbayeh	40 min
M.C.	May 15-2014	——	By Email	——
R. D.	May 15-2014	——	By Email	——
C. R.	May 20-2014	——	By Email	——
L. M.	May 20-2014	——	Through Social Media	——
M. M.	May 23-2014	——	By Email	——
N. S.	May 23-2014	——	By Email	——
M. H.	October 20-2014	10:00	Zouk Mosbeh	30 min
S. H.	October 22-2014	——	By Email	——
K. D.	October 22-2014	——	By Email	——
D. K.	October 25-2014	——	By Email	——

APPENDIX F. INTERVIEW CALENDAR
PROFESSORS AND PUBLISHERS

Professor	Date	Time	Place	Duration
R.A.	April 08-2014	12:00	USJ	60 min
D.G.	April 08-2014	12:00	USJ	60 min
I. G.	March 05-2015	13:00	LAU Jbeil	40 min

Publisher	Date	Time	Place	Duration
Al Salwa Publishers	May 15-2014	_____	By Email	_____
Dar El Hadaek	May 15-2014	10:00	By Phone	30 min
Dar Onboz	May 18-2014	_____	By Email	_____
Kalimat	June 23-2014	_____	By Email	_____
Librarie du Liban	October 20-2014	11:00	Zouk Mosbeh	30 min

APPENDIX G. INTERVIEW QUESTIONS – CHILDREN (5-7)

1- Do you like to read stories?

2- What is your favorite book in Arabic?

www.google.com

3- If favorite book is in another language: why do you prefer English/French language to Arabic language books?

4- Which of these books would you like to have for you to keep? Why? What did you like most about this book?

5- What did you like most about this book?

6- What is happening in this story?

7- *A text selection is shown*:

Can you read this sentence?

School A: page with poor hierarchy and typesetting + long line lengths

School B: page with very animated illustration and text – leads to confusion

School C: page with overall balanced layout and clear hierarchy + short line lengths

8- Do you like the colors or does this other book have nicer colors?

9- *Two books are shown*:

Do you like this font or do you prefer the one in this other book? Why?

School A: serif and sans serif

School B: angular and rounded counter

School C: long ascenders and short ascenders

10- *A text selection is shown*:

Can you read this sentence?

School A: against light background

School B: against dark background

School C: against white background + considering different page layouts

APPENDIX H. CHECKLIST FORM USED DURING PILOT –
CHILDREN'S INTERVIEW RESPONSES

1- Do you like to read stories?

YES		NO	
BOY	**GIRL**	**BOY**	**GIRL**

2- What is your favorite book in Arabic?

BOY	GIRL

3- If favorite book is in another language: why do you prefer English/French language to Arabic language books?

BOY	RESPONSE

GIRL	RESPONSE

4- Which of these books would you like to have for you to keep? Why?

BOY BOOK CODE	WHY HAPPENING	WHAT HE LIKED	WHAT IS

GIRL BOOK CODE	WHY HAPPENING	WHAT SHE LIKED	WHAT IS

5- What did you like most about this book? **(TABLE ABOVE)**

6- What is happening in this story? **(TABLE ABOVE)**

7- A text selection is shown: Can you read this sentence? [*book codes:*   ]

BOY	NO	HARDLY	NORMALLY	CLEARLY	COMMENTS

GIRL	NO	HARDLY	NORMALLY	CLEARLY	COMMENTS

8- Two books are shown: Do you like the colors or does this other book have nicer colors? [*book codes:*   ]

BOY		**GIRL**	
BOOK	**BOOK**	**BOOK**	**BOOK**

9- Two books are shown: Do you like this font or do you prefer the one in the other book? [*book codes:*   ]

BOY		GIRL	
BOOK	**BOOK**	**BOOK**	**BOOK**

10- A text selection is shown: Can you read this sentence? [*book codes:*   ]

BOY	NO	HARDLY	NORMALLY	CLEARLY	COMMENTS

GIRL	NO	HARDLY	NORMALLY	CLEARLY	COMMENTS

APPENDIX I. INTERVIEW QUESTIONS – LEBANESE ILLUSTRATORS

The Role of the Illustrator in Changing or Improving Children's Perceptions of Life

1. How can you describe the responsibility of the illustrator in changing or improving children's perceptions of life through his work in terms of:
   a. Aiding in their overall growth development
   b. Improving the quality of illustrations to make them more attractive to children and hence increase the possibility of children learning in and reading the language

Effects of Illustrations on Reading Performance of Children (5-11 yrs)

2. How would you describe the effects of illustrations in children's Arabic storybooks on learning the language and on the frequency of reading in Arabic rather than another language?

   a. Are they essential in children's storybooks in general; and what are some functions of these illustrations in this case?

   b. How important are illustrations in storybooks to young readers in terms of capturing a child's interest, language learning, and their overall growth development?

The Lebanese Context

3. How would you portray the state of the Arabic Children's Books in terms of the following criteria:
   a. Illustration Technique
   b. Color Palette
   c. Typography
   d. Media Usage
   e. Paper Quality
   f. Format
   g. Themes

Illustration Themes and Styles that Appeal to Children

4. What are some of the themes of storybook illustration that appeal to children? Why?

5. What are some styles, qualities, and colors of illustration that may capture children's attention more than others? Why?

6. What are the latest illustration techniques that you have been recently using?

7. What are the latest illustration techniques that are not being used in Lebanon and why not?

8. What is your favorite subject, medium, or style that you work in?

Effect of E-Books and Technologies

9. How has the rise of Arabic e-books and digital applications for children affected your work in terms of the medium you use for illustration or technique?

Conclusion/Additional comments:

10. Do you have any other comments regarding illustrations, their design and use in children's Arabic books?

APPENDIX J. INTERVIEW QUESTIONS – LEBANESE PUBLISHERS

Publishing Children's Books in Lebanon

1. How would you characterize the current state of the Arabic children's literature industry in Lebanon with respect to the following:
   a. Is there a change in the format of the books?
   b. Is there a change in themes and styles of the books?
   c. Is the demand on Arabic children's books higher or lower than a few years ago?

2. How would you compare the way the Arabic storybooks looked 10-15 years ago in Lebanon when there were limited attempts to create artistic storybooks, to those that are being published today in terms of:
   a. The inclusion of images, pictures, illustrations that were visually appealing to children; or the judgment of the books merely by text while the visuals remained disregarded?
   b. Different story themes nowadays in contrast to the past 10-15 years. Are there any new emerging themes?

3. In your opinion, what are the factors or traits that make an Arabic storybook attractive to children?

4. What additional physical aspects, if any, are included in the latest Arabic storybooks regarding pages, typography, covers, use of material and end pages to make them look more appealing to children between 5 and 11 years?

5. Are there specific trends, tendencies, or practices in the industry that are being given more attention than others, or that have influenced the book publishing industry in Lebanon, or conversely that have not spread in Lebanon for a certain reason?

Readership

6. How important are illustrations in Arabic storybooks to young readers between the age of 5 and 7 in Lebanon?

7. What are the names of the best-selling Arabic storybooks for children in Lebanon in the years 2013-2014?

8. Can you please name some famous Lebanese children's books illustrators and authors that are more famous than others?

Effect of E Books and Technologies

9. How has the technological advancement in publishing influenced the artistic process of book making?

10. How has the rise of Arabic e-books for children affected the printed genre of Arabic storybooks in Lebanon? Could you give examples to support your point of view?

Governmental Policies

11. What actions, if any, has the Lebanese Ministry of Education taken that have had an impact on publishing children's books? What has been the impact of these actions?

Additional Comments

12. Do you have any other comments?

APPENDIX K. INTERVIEW QUESTIONS – PROFESSORS

Effects of Illustrations on Reading Performance of Children (5-11 yrs)

1. How would you describe the effects of illustrations in children's Arabic storybooks on learning the language and on the frequency of reading in Arabic rather than another language?
   a. Are they essential in children's storybooks in general; and what are some functions of these illustrations in this case?
   b. How important are illustrations in storybooks to young readers in terms of capturing a child's interest, language learning, and their overall growth development?

The Lebanese Context

2. How would you portray the state of the Arabic Children's Books in terms of the following criteria:
   a. Illustration Technique
   b. Color Palette
   c. Typography
   d. Media Usage
   e. Paper Quality
   f. Format
   g. Themes

Illustration Themes and Styles that Appeal to Children

3. What are some of the themes of storybook illustration that appeal to children? Why?

4. What are some styles, qualities, and colors of illustration that may capture children's attention more than others? Why?

Effect of E-Books and Technologies

5. How has the rise of Arabic e-books and digital applications for children affected readership of printed books?

Conclusion/Additional comments:

6. Do you have any other comments regarding illustrations, their design and use in children's Arabic books?

APPENDIX L. SELECTED PICTURE BOOKS – COVERS

Book A

Two Stories - *Hikayatan* (Mouhaidly, 2006) (Photograph taken by the author, 9-12-2014)

Book B

How I Became a Bonnet – *Kayfa Sertou Qubaa Souf* (Qoreitem, 2012)
(Photograph taken by the author, 3-12-2015)

Book C

Mountain Rooster - *Deek El Jabal* (Sharafaddine, 2006) – Winner of the "Best Book Award 2006" awarded by the National Lebannese Child Association (Photograph taken by the author, 9-12-2014)

Book D

The Beautiful Camel – *Al Jamal El Jamil* (Abdallah, 2006) (Photograph taken by the author, 9-12-2014)

Book E

I Wish I were a Dog - *Ya Laytani Kalbon* (Monks, 2005) – Winner of the "Smarties Prize Bronze Award"
(Photograph taken by the author, 9-12-2014)

Book F

I Love Chocolate - *Ouhebbou El Chocolat* (Kelly; Muhaidly, 2006)
(Photograph taken by the author, 9-12-2014)

Book G

No! I will not Eat the Tomato at All! – *La! Lan Akol Al Banadoura Abadan!* (Child; Sharafeddine, 2008)
– Winner of the "Kate Greenway and the Norfolk Children's Book Award"
(Photograph taken by the author, 9-12-2014)

Book H
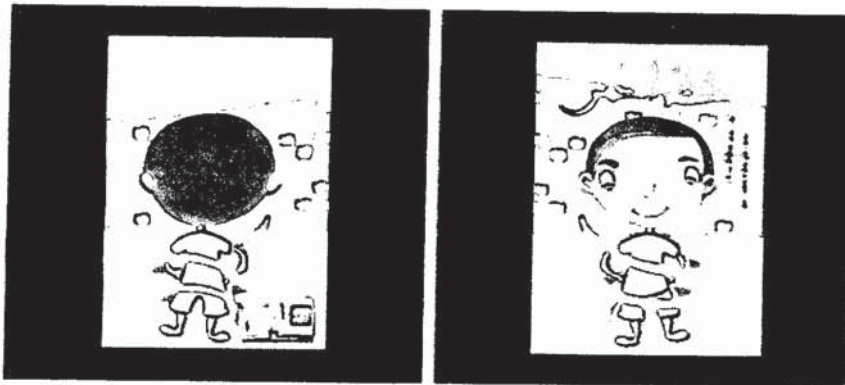
Red Line - *Khatt Ahmar* (Barraj, 2014) (Photograph taken by the author, 9-12-2014)

Book I

I Become Happy, I Become Sad – *Afrahou, Ahzanou* (Sharafeddine, 2005)
(Photograph taken by the author, 9-12-2014)

Book J
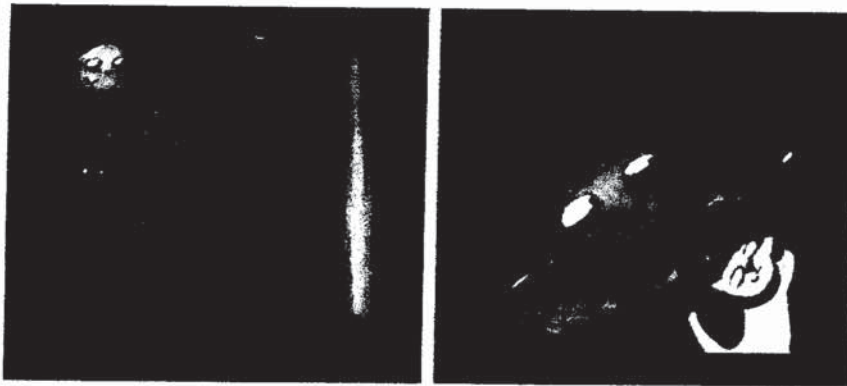
I Also Want – *Ana Aydan Oureed* (Barraj, 2007) (Photograph taken by the author, 9-12-2014)

Book K

When my Friend Got Sick - *Aendama Maridat Sadiqaty* (Barraj, 2011)

(Photograph taken by the author, 9-12-2014

Two Stories – *Hikayatan* (Mouhaidly, 2006)

MEANING	COLOR	FORM	DESIGN & MEDIA
- The Lebanese culture is not integrated in the illustrations of this book.	- Gloomy mood is reflected through the use of a gradation of sepia color, with a minimal use of other colors. - Black text is placed on white or light and darker tints of sepia color.	- The story of this picture book talks about two characters and their favorite hobby. - Firas loves playing the piano and Hala loves painting. - The story of each character is being told in parallel to each other as if they are two different stories in one book. - Both characters show their talents in public competitions and win; Firas plays the piano in front an audience in a concert, and Hala joins a painting competition prepared by the municipality. - At the end of the story, the author reveals that Firas is deaf when he thanks the public using sign language and Hala is blind.	- Realism - No depiction of humor in any of the illustrations. - Use of light and shadow to create depth. - Use of line hatching to create texture. - In the pages where Firas is playing the piano and Hala is s howcasing his painting in front of an audience, the visual features' spatial grouping and common regions have been used by the book's illustrator to convey the concept of audience as a collection of people enclosed together in one part of the page. - The cartoon conventions principle is also used in the illustrations which are: motion, emotion and speech balloons.

PAGE LAYOUT & HIERARCHY	BOOK SIZE, COVER & ENDPAGES	TYPOGRAPHY
- Creating perspectives and hierarchy of shapes are used by the illustrator to highlight an issue, such as middle-shots, close-ups and panoramic views.	- Medium book	- The book has used one regular Arabic font with medium weight to tell the story. It has also used a bold and overly stylized font with the sentences taking the form of waves when Firas is singing.
- Close-ups are used by the illustrator to focus on the hand clapping of the audience, on Firas' fingers playing the piano and mouth while singing, and on Hala's paint brush to focus on the action of painting.	- Soft cover	- The font used in the book has regular length ascenders and descenders.
- A panoramic view is used when Firas is on stage, illustrating the scene from the audience's perspective.	- The front cover shows the story's two characters framed in two squares against a mountainous view but it does not reflect the story's theme.	- When direct quotation is used, black text is placed on brown/sepia colored speech bubble with a weak contrast.
- Middle-shots are used in the pages where there is a focus on a single character such as the mayor who is stating the name of the winner or on Hala who is accepting her prize medal.	- The front and back covers are connected to each other with the mountainous view starting in the front and continuing all the way back in the back cover. But it does not reflect any meaning regarding the story.	- Short line lengths.
- The page layout is poor and monotonous since the illustrations are all fit into a square on a white background and text is placed above the square. It also lacks open space.	- The book lacks endpages.	

APPENDIX N. FREQUENCY OF CHILDREN'S RESPONSES
FAVORITE COLOR

Fav. Color	School 1	School 2	School 3	Total
Blue	13	14	13	40
Orange	3	2	1	6
Green	5	3	8	16
Red	8	14	9	31
Gold & Silver	1	3	2	6
Pink	8	3	9	20
Purple	7	12	7	26
White	4	0	2	6
All Colors	2	1	2	5
Yellow	3	3	3	9
Magenta	3	2	2	7
Fluorescent	1	0	2	3
Black	2	3	0	5
Total	60	60	60	180

Fav. Color Palette	School 1	School 2	School 3	Total
Cool	23	6	18	47
Warm	37	54	42	133
Total	60	60	60	180

Balerina

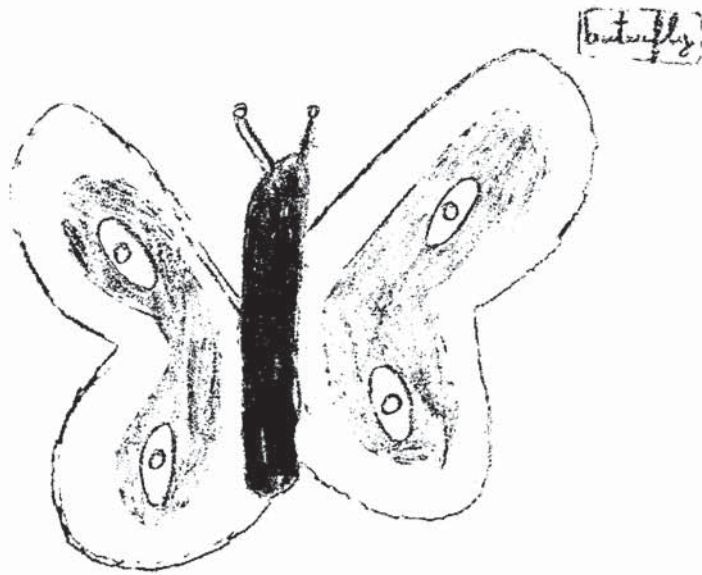Rugby ball

APPENDIX P. FREQUENCY OF CHILDREN'S RESPONSES
THEME PREFERENCES

Theme Preference	School 1	School 2	School 3	Total
Religion	2	0	0	2
Science	5	6	5	16
Daily Object/Experience	13	18	16	47
Family & Love	10	13	10	33
Animal/Insect	7	23	9	39
Nature	11	9	17	37
Cartoon/TV Show	2	3	1	6
Total	60	60	60	180

APPENDIX Q. FREQUENCY OF CHILDREN'S RESPONSES
FONT LEGIBILITY – PAGE LAYOUT/HIERARCHY

Critical Issue	Clearly	Slowly	Confused	Total
School 1 Balanced Layout	46	14	0	60
School 2 Poor Layout	40	18	2	60
School 3 Very Animated Layout	54	0	6	60
Total	140	32	8	180

APPENDIX R. FREQUENCY OF CHILDREN'S RESPONSES
FONT PREFERENCES

Critical Issue	Serif Font	Sans Serif Font	Long Ascenders Descenders	Short Ascenders Descenders	Angular Counters	Rounded Counters	Total
School 1	28	32					60
School 2			38	22			60
School 3					48	12	60
Total							180

APPENDIX S. FREQUENCY OF CHILDREN'S RESPONSES
FONT PREFERENCES – COLOR CONTRAST

Critical Issue	Clearly	Slowly	Confused	Total
School 1 Dark Text Light B.G	42	18	0	60
School 2 White Text Dark B.G	32	22	6	60
School 3 Colored Text Dark B.G	25	35	0	60
Total	99	75	6	180

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وهَذا فِرَاس.

فَلَمَّا خَيِّب.
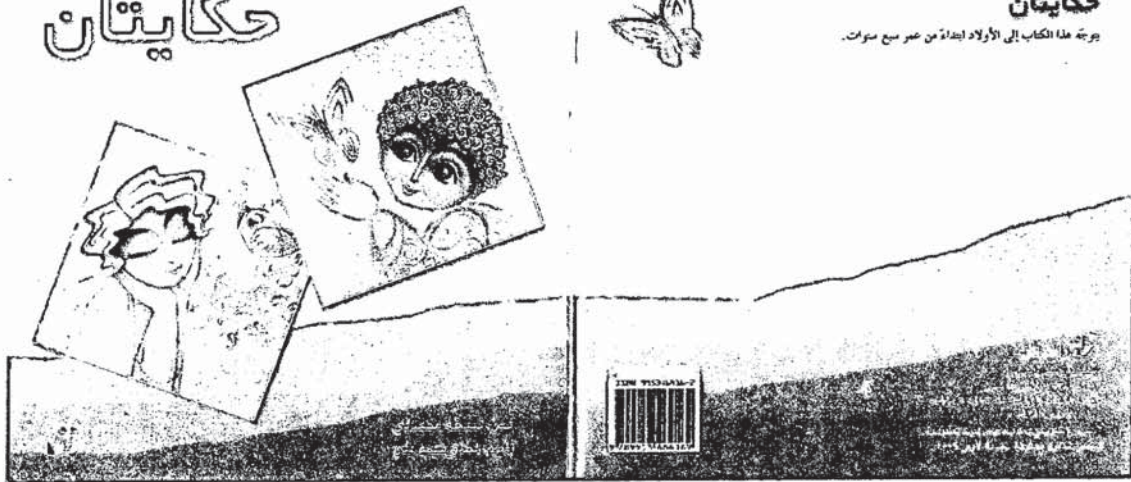
أَنَا فِرَاس، فَقَدْ وَقَفَ فَخُوراً أَمَامَ لَوْحَتِهِ، وَهُوَ يَنْظُرُ إِلَى وَالِدَيْهِ الجَالِسَيْنِ بَيْنَ الحُضُورِ.

وَفِي يَوْمِ الحَفْلِ، جَاءَ دَوْرُ خَيِّب، فَعَزَفَ وَغَنَّى، وَصَفَّقَ الحُضُورُ لَهُ، وَشَعَرَ بِضَعْفٍ وَالِدَيْهِ.

فِرَاس يَرْسُمُ بِرِيشَتِهِ، وَيُلَوِّنُ بِالأَصْفَرِ.

خَيِّب يَعْزِفُ وَيُنَدِّدُ:

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نص: نبيهة محيدلي

وَهِيَ تَنْظُرُ إِلى الحُضُورِ.

وَقَفَتْ هالا فَخُورَةً أَمامَ أُخْتِها.

فَعَزَفَ وَغَنَّى، وَصَفَّقَ الحُضُورُ لَهُ.

وَفي يَوْمِ الحَفْلِ، جاءَ دَوْرُ حَبيب.

يا هَوا بَيْروت
يا هَوا الإنام
إِرْجَعي يا بَيْروت
تَرْجَع الإتام ..

حَبيب يَعْزِفُ وَيُنشِدُ:

اليوم،
يَتَدَرَّبُ حَبيب عَلى العَزْفِ،
لِلْمُشارَكَةِ في احْتِفالِ البَلَدِيَّة.

وفي نِهايَةِ الحَفْلِ، قُدِّمَتْ جائِزَةُ أَفْضَلِ عَزْفٍ إلى حَبيب.

وأُعْلِنَت اللَّوْحَةُ الفائِزَة. إنَّها لَوْحَةُ هالا.

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