

# The Perceptions of Graphic Design Concept on Students Study on Graphic Design

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## Abstract

The purpose of this study is to examine the graphic design concept perceptions of university students who take graphic design education by using metaphors. The research was carried out with 160 students from the Department of Graphic Design at Inonu University, Hacı Bayram Veli University and Necmettin Erbakan University. A total of 142 students (87 female and 55 male) were considered to be surveyed. The students were asked a personal information form and an open-ended question via a questionnaire prepared by qualitative research method. The analysis of the survey data was evaluated by the content analysis method from qualitative research techniques. According to the analysis, the participants created 96 metaphors. The most repeated metaphors for graphic design are; Dreaming (7), Universe (6) and Freedom (6).

The common characteristics of these metaphors produced by the participants were collected in eight sub-categories which are Effort /Labor dependent structure, Unlimited structure, Useful structure that facilitates, Multi-dimensional structure, Target-oriented structure, Changeable structure, Holistic structure, Uniform structure.

According to the result obtained in the study, there are different perceptions of the graphic design based on gender and grades.

**Keywords:** graphic design, graphic design student, metaphor, qualitative

## 1. Introduction

With the developments in the economic, social and technological fields in the 19th century, the use of graphic design in modern life has expanded. Especially in today's fast-paced consumption, graphic design products are faced (Gafuroğulları, 2014: 55). It has the power to inform and persuade people in many areas, ranging from signs used to prevent accidents in traffic, to the graphics showing the amount of cholesterol in people's food and to movie trailers (Twemlow, 2011: 6). Designers use graphic design in many areas such as logos, labels, newspaper advertisements, posters and magazines.

The word of "graphic" was first derived from the word "grafikos" or "graphein" which means writing and scraping in Greek. The word of "design" in Turkish is derived from "designation" in English. It means pointing to something in Turkish. This word has been used for printing on paper or leather by carving hard materials such as metal, wood or stone and then painting (Ağsakallı, 2014; Gafuroğulları, 2014; Çaydere, 2016).

Graphic design offers an economic, effective, informative and aesthetic way using typography, painting, photography, color, creative images and concepts (Ünalın, 2005; Uslu, 2017; Dokuzlar, 2015; Gafuroğulları, 2014; Becer, 2015) to solve a knowledge or a complex problem (Hembree, 2011: 11) is a flat surface that communicates or a two-dimensional visual expression language (Ketenci & Bilgili, 2006; Arntson, 2012; Gafuroğulları, 2014; Ağsakallı, 2014; Landa, 2014; Becer, 2015).

Graphic design that is as old as the history of humanity and a universal language gives the ability of visual literacy to the individual. The individual should be aware that graphic design must be an product of an aesthetic understanding, an artistic infrastructure and an intelligence. Therefore, lifelong learning is necessary for individuals who are capable of design to solve the problems they face and to produce practical solutions (Çaydere, 2016: 790).

Understanding graphic design does not require an educational level. Graphic images with high expressive power are a visual language easily understood by every human being in different cultures and societies. Nowadays, this language has increased the importance of graphic design as a communication tool between people (Ağsakallı, 2014: 6) and expanded its usage areas.

Graphic design has a tradition of archiving, documenting, critically writing and publishing that consist of social, cultural and political information as in all other design areas (Triggs, 2011: 3). Because the artist of every period has transformed the expectations and aspirations of the people living in the same geography with their own ideas by using the technology of that period into a visual language. Thus, the artist took a task of documenting social phenomena from past to present (Dokuzlar, 2015; Uslu, 2017).

Today, the pressing foreman and craftsman are replaced by graphic designers who produce with modern tools and equipment by the power of updated and contemporary interpretation. The graphic designer continues the lifelong education by following the new trends in society, developing technology, and the artistic, political and philosophical issues discussed (Mccarthy & Almeida, 2002; 103). Graphic designer can communicate complex ideas to the society in a simple and effective manner in a smart and thought-provoking design (Hembree, 2011: 11). Moreover, the designer can find an aesthetic, safe, innovative and personalized approach on the studies (Ketenci & Bilgili, 2006: 279).

In this study, it was aimed to find out the differentiation about the expression of the concept of “graphic desing” using the metaphors created by the students in the graphic design departments of the selected universities based on gender and grades. People use the metaphor through indirectly different analogies (Altıntaş, 2005:4), rather than directly to itself, to understand an abstract complex phenomenon (Persich, Steinemann, Fetterman & Robinson, 2018), environment, object, event, or explanation (Pektaş & Kıldan, 2009; Geçit & Gençer, 2011). Shuell is the best phrase to express the power of metaphor. According to Shuell (1990) “If a picture is worth 1,000 words, a metaphor is worth 1,000 pictures! For a picture provides only a static image, while a metaphor provides a conceptual framework for thinking about something” (p.102).

## 2. Methodology

### 2.1 Study Group

The student study group of this research is composed of the department of Graphic Design, Faculty of Fine Arts and Design at Inonu University, department of Visual Communication, Faculty of Fine Arts at Hacı Bayram Veli University, and department of Graphic Design, Faculty of Fine Arts at Necmettin Erbakan University. The questionnaires were applied to 160 students and 142 of these questionnaires were valid. The demographic characteristics of the students are given in Table 1.

Table 1. Demographic characteristics of the students

Variable	Type	Frequency(n)	Percentage (%)
Gender	Female	87	61.26
	Male	55	38.74
	Total	142	100
Grades	1st Grade	52	36.62
	2nd Grade	31	21.84
	3rd Grade	29	20.42
	4th Grade	30	21.12
	<b>Total</b>	<b>142</b>	<b>100</b>

### 2.2 Data Collection Tool

In order to collect data in the study, a semi-structured Questionnaire Form was applied to the participants to determine their perceptions about Graphic Design concept and the personal information. The metaphors was revealed with the sentences such as “Graphic design is like ..... Because .....”.

### 2.3 Analysis of Data

In the analysis of the data obtained from the research, content analysis was used from qualitative research methods. Content analysis can be defined as a systematic, repeatable technique in which some of the words within a text are summarized with smaller content categories with encodings made according to certain rules. It is a technique in which an objective and systematic recognition of certain features of a message is made. Content analysis is used to determine the existence of certain words or concepts in a cluster of text or texts (Büyükoztürk, Çakmak, Akgün, Karadeniz & Demirel, 2011: 269). The data collected for this purpose should be conceptualized first, then rationally organized according to the emerging concepts and accordingly detected the themes explaining the data (Yıldırım & Şimşek, 2011: 227).

The metaphors and responses obtained from the students about the questions of graphic design were analyzed in five stages. These are coding of the data, establishing the categories, arranging the data according to the codes and

categories, providing the validity and reliability and interpretation of the data. At stage of data coding phase, metaphors produced by students were listed in alphabetical order and a list was created. While preparing the list, it is exhaustively examine whether the specific metaphor is clearly defined in the question form, and the documents belonging to the candidates who do not fill in the statement starts with “because” or any part of form. Then a list of sample metaphors was created to validate the data analysis process and use it as a resource for collecting metaphors under a certain category. The long- expressions used by the students were examined and their important aspects were taken into consideration. Encodings were used to indicate which metaphor images belong to the student (participants, P). At stage 2; during the creation of the categories, metaphors produced by the students were examined in terms of their common characteristics and analyzed for their relationship. At stage 3; the data were organized according to the codes and categories, and after the coding was done in detail, the categories which could bring together the codes related with each other were determined. At stage 4; after validity and reliability was done, expert opinions helped to confirm whether the metaphors presented under the eight conceptual categories developed in the study represent the conceptual categories to which they belong. For this purpose, two faculty members working at the same university were employed. At Stage 5; metaphor categories are tabulated and interpreted with information about frequency of using these metaphors and categories according to gender and grade. As a result, the data were interpreted according to these findings.

### 3. Findings

#### 3.1 Metaphors and Its Categories

According to the results of content analysis, a total of 96 metaphors were produced for the concept of graphic design. Metaphors produced by the students participating in the study are arranged in alphabetical order and given in table 2. According to the frequency results, the most repeated 11 metaphors and their frequencies are Dreaming (7), Universe (6), Freedom (6), Mathematics (4), Path (4), Love (3), Brain (3), All areas of Life (3), Musical (3), Life (3) and Entertainment (3). As shown in Table 2, 26 of the metaphors are represented by more than one student. The remaining 70 metaphors are represented by one student. In some cases, some students create more than one metaphor for the concept of graphic design. Therefore, total frequency of metaphors is 145.

Table 2. Metaphors of Graphic Design Department students about “Graphic Design” concept

Metaphors	Frequency	Percentage
Dreaming	7	4,8
Freedom	6	4,2
Universe	6	4,2
Mathematics	4	2,8
Path	4	2,8
All Areas of Life	3	2,1
Brain	3	2,1
Entertainment	3	2,1
Life	3	2,1
Love	3	2,1
Musical	3	2,1
A Different World, Baby, Child, Factory, Flower, Geometry, Idea-Thoughts, Innovation – Original Thought, Life itself, Mind, Nature, Space Vacuum, Story, Subconscious, Therapy (15 Metaphors)	2	1,4
A Part of Nature, A Very Good Job, Advertiser, Animation, Arrow, Art, Art Creation with the Spirit, Beginning of Birth, Brainstorming, Cartoon, Chain, Clew, Computer, Consultant, Creativity, Design, Detective, Dream, Dream World, Everything that Advertised, Everything the Eye Sees, Eyesight, Facilitation, Field of Art, Football, Gift Package, Grafon Paper, Hobby, Human, Impulse, Labyrinth, Landscape, Laugh, Law of Nature, Line, Machine, Magician, Marketing, Material, Messaging with Pigeon, Mirror, Mixer, Myself, Painting, Parents, Perspective, Physics, Poetry, Quantum Mechanics, Rainbow, Ratio and Proportion, Research, Sea of Thought, Seed, Sky, Society, Spirit, Story Narrator, Sun, Surprise Egg, the Director of Nature, the Way to Express Myself, The World that dreams are realized, Thoughts in us, Top Level, Transfer the Dream, Tree, Truth of Life, Visual Communication, Water (70 Metaphors)	1	0,7
Total	145	100,0

#### 3.2 Conceptual Categories of the Metaphors Based on Common Characteristics

The metaphors created for the concept of graphic design were categorized according to their common characteristics and similarities. These categories and metaphors in these categories are shown in Table 3. As shown in the table, 8 categories were obtained. These categories are effort or labor dependent structure, unlimited structure, useful structure

that facilitates life, multi-dimensional structure, target-oriented structure, changeable structure, holistic structure, uniform structure. The students created metaphors which they perceived as “unlimited structure”(18.7%) and “target-oriented structure” (18%) to explain the concept of graphic design.

Table 3. The categories of metaphors created by graphic designer candidates for the concept of Graphic Design

Categories	Metaphors	Number of Metaphors	Frequency	Percentage	Example of Statements for Metaphors
Effort /Labor dependent structure	Idea-thought (2), Dreaming (1), The World that dreams are realized (1), Path (1), Football (1), Labyrinth (1), Grafon paper (1), Research (1), Brain (1) , Law of Nature (1), Seed (1), Flower (1), Physics (1), Gift Package (1)	14	15	10.8	P-33: Graphic design is like a <b>labyrinth</b> because it's hard to learn and grasp, but after learning it's very nice and very good. P-109: I think graphic design is a <b>brain</b> , because it requires much thinking.
Unlimited structure	The truth of life (1), Brainstorming (1), A Part of nature (1), Life (2), Spirit (1), Universe (5), Sky (1), Everything the eye sees (1), Mind (1), Line (1), Dreaming (1), Freedom (2), Detective (1), Art (1), Brain (1), Path (1), Space Vacuum (2), Life itself (1), Painting (1)	19	26	18.7	P-1: Graphic design is like the <b>universe</b> because there is an endless way of doing a design just like the universe. P-3: Graphic design is like the <b>sky</b> because it is infinite and open to design like clouds.
Useful structure that facilitates	Machine (1), Sun (1), Quantum mechanics (1), Laugh (1), Water (1), Messaging with Pigeon (1), Dreaming (1), Freedom (2), Idea-thought (1)	9	10	7.2	P-15:Graphic design is like the <b>sun</b> because it gives the world light and color. P-32: Graphic design is like the <b>water</b> , because we need a graphic design as we need water.
Multi-dimensional structure	Rainbow (1), Society (1), Design (1), Clew (1), Dreaming (1), Freedom (1), Musical (1), Geometry (1), Mathematics (1), Life (1) , Love (3), Top Level (1), Field of Art (1), Entertainment (1), Landscape (1), Myself (1), Mirror (1), Research (1), A Very Good Job (1)	19	21	15.1	P-10: Graphic design is like the <b>rainbow</b> because it is colorful and varieties P-24: Graphic design is like the <b>society</b> , because it contains all creativity content.
Target-oriented structure	Story (2), Impulse (1), All areas of life (2), Consultant (1), Parents (1), Visual communication (1), A different world (1), Dreaming (2), Dream (1), Subconscious (1), Therapy (2), Entertainment (2), The Director of Nature (1), Nature (1), Facilitation (1), Art creation with the spirit (1), Eyesight (1), The way to express myself (1), Arrow (1), Flower (1)	20	25	18.0	P-28: Graphic design is like the <b>all areas of life</b> , because it is in every aspect of life and enables us to see. P-134: Graphic design is like the <b>eyesight</b> because it allows us to see and understand everything.
Changeable structure	Universe (1), Computer (1), Baby (2), Magician (1), Beginning of birth (1), Material (1), Dreaming (1), Thoughts in us (1), Innovation- original thought (1) , Sea of Thought (1), Musical (2), Subconscious (1), Perspective (1), Factory (2), Space vacuum (1), Path (2), Surprise egg (1), Tree (1), A Different World (1)	19	23	16.5	P-7: Graphic design is like a fantastic <b>universe</b> because it can transfer things a quite differently with graphics. Another world of communication. P-115: Graphic design is like a <b>path</b> , because I can differentiate the paths I've gone.

Holistic structure	Cartoon (1), Human (1), Life itself (1), Freedom (1), Child (1) Mixer (1), Story narrator (1), Design (1)	8	8	5.8	P-13: Graphic design is like a <b>cartoon</b> because I know that while watching cartoons, they are all composed of individual lines and that they are related to graphics. P-85: Graphic design is like a <b>child</b> because they are the seeds of the the nation and the future of society.
Uniform structure	Mathematics (3), Poetry (1), Marketing (1), Geometry (1), Nature (1), Mind (1), Ratio-Proportion (1), Advertiser (1), Child (1)	9	11	7.9	P-22: Graphic design is like the <b>mathematics</b> because it depends on systematic rules in itself as in the graphics. P-98: Graphic design is like the <b>geometry</b> because it contains geometric terms.
Total		117	139	100	

### 3.3 Differentiation of the concept of Graphic Design based on Gender and Grades

It was evaluated by the metaphor formed by the students about the graphic design concept. Frequency and total percentage (%) of metaphors according to gender and grades based on categories are given in Table 4.

Most of the female students perceive the concept of graphic design as an unlimited structure (19.8%) and a changeable structure (18.6%). A few of them perceive the concept of graphic design as a holistic structure (5.8%) and a uniform structure (5.8%). Most of the male students perceive the concept of graphic design as a target-oriented structure (22.6%) and an unlimited structure (17%). A few of them perceive the concept of graphic design as a useful structure that facilitates (5.7%) and a holistic structure (5.7%). The common perception of both male and female students participating in the study is the least expression of a holistic structure.

In the 1st Grade, the concept of Graphic Design was expressed as a target-oriented structure (19.6%) and unlimited structure (25.5%) mostly. A useful structure that facilitates (5.9%) was least expressed. In the 2nd grade, target-oriented structure (25.8%) was preferred mostly and a uniform structure (3.2%) leastly. As seen in Table 4, among the 3rd grade students, unlimited structure (24.1%) was expressed mostly and a holistic structure (3.4%) and a useful structure that facilitates (3.5%) have the same percentage. In 3rd Grade and 1st Grade, there is a common perception that they expressed the concept of graphic design as an unlimited structure and a useful structure that facilitates. In the 4th grade, the concept of Graphic Design was expressed as an effort-labor dependent structure (21.4%) and changeable structure (21.4%) and the holistic structure (3.5%) was least expressed. In general, unlimited structure are expressed by 18.3% and a holistic structure is 5.6% based on the answers from students.

Table 4. Categorical Distribution of metaphors about graphic design concept according to gender and grades

#### a. Effort / Labor Dependent Structure

Metaphors	Gender		Grades				Total 139
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	
Idea Thoughts	2	0	0	0	1	1	2
Dream	1	0	0	1	0	0	1
The World that dreams are realized	0	1	1	0	0	0	1
Path	1	0	0	0	0	1	1
Football	0	1	1	0	0	0	1
Labyrinth	1	0	0	0	0	1	1
Grafon paper	0	1	1	0	0	0	1
Research	1	0	0	0	1	0	1
Brain	1	0	0	0	0	1	1
Law of Nature	0	1	0	0	0	1	1
Seed	0	1	0	1	0	0	1
Flower	1	0	0	1	0	0	1
Physics	1	0	1	0	0	0	1
Gift Package	0	1	0	0	0	1	1
Total	9	6	4	3	2	6	15
Percentage	10.5%	11.3%	7.8%	9.7%	6.9%	21.4%	10.6%

## b. Unlimited Structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	139
Truth of life	1	0	1	0	0	0	1
Brainstorming	1	0	0	0	0	1	1
Part of nature	0	1	0	0	1	0	1
Life	2	0	1	0	1	0	2
Spirit	0	1	1	0	0	0	1
Universe	2	3	4	0	1	0	5
Sky	1	0	1	0	0	0	1
Everything the Eye sees	1	0	1	0	0	0	1
Mind	1	0	1	0	0	0	1
Painting	0	1	1	0	0	0	1
Line	1	0	1	0	0	0	1
Dreaming	1	0	0	0	0	1	1
Freedom	2	0	0	0	2	0	2
Detective	0	1	0	1	0	0	1
Art	1	0	1	0	0	0	1
Brain	0	1	0	0	1	0	1
Path	1	0	0	1	0	0	1
Space Vacuum	1	1	0	1	1	0	2
Life itself	1	0	0	0	0	1	1
<b>Total</b>	<b>17</b>	<b>9</b>	<b>13</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>26</b>
<b>Percentage</b>	<b>19.8%</b>	<b>17.0%</b>	<b>25.5%</b>	<b>9.7%</b>	<b>24.1%</b>	<b>10.7%</b>	<b>18.3%</b>

## c. Useful structure that facilitates

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	139
Machine	1	0	1	0	0	0	1
Sun	0	1	0	1	0	0	1
Quantum Mechanics	0	1	0	0	0	1	1
Laugh	1	0	0	0	0	1	1
Water	1	0	1	0	0	0	1
Messaging with Pigeons	1	0	0	0	0	1	1
Dreaming	0	1	0	0	0	1	1
Freedom	2	0	1	0	1	0	2
Idea-thoughts	1	0	0	1	0	0	1
<b>Total</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>10</b>
<b>Percentage</b>	<b>8.1%</b>	<b>5.7%</b>	<b>5.7%</b>	<b>6.5%</b>	<b>3.5%</b>	<b>14.3%</b>	<b>7.0%</b>

## d. Multi-dimensional structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	139
Rainbow	1	0	1	0	0	0	1
Society	0	1	1	0	0	0	1
Design	1	0	0	1	0	0	1
Ball	1	0	1	0	0	0	1
Dreaming	1	0	0	1	0	0	1
Freedom	1	0	1	0	0	0	1
Musical	1	0	0	0	1	0	1
Geometry	0	1	0	0	0	1	1
Mathematics	0	1	0	0	1	0	1
Life	1	0	0	0	0	1	1
Love	2	1	1	0	1	1	3
Top level	1	0	0	1	0	0	1
Field of Art	0	1	0	1	0	0	1
A very Good Job	1	0	1	0	0	0	1
Entertainment	1	0	1	0	0	0	1
Landscape	1	0	0	1	0	0	1
Myself	0	1	0	1	0	0	1
Mirror	0	1	1	0	0	0	1
Research	1	0	0	0	1	0	1
Total	<b>14</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>21</b>
Percentage	<b>16.3%</b>	<b>13.2%</b>	<b>15.7%</b>	<b>19.4%</b>	<b>13.8%</b>	<b>10.7%</b>	<b>14.8%</b>

## e. Target-oriented structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	139
Story	1	1	2	0	0	0	2
Impulse	1	0	0	0	1	0	1
All areas of Life	0	2	1	0	1	0	2
Consultant	0	1	1	0	0	0	1
Parent	0	1	0	1	0	0	1
Visual communication	0	1	0	1	0	0	1
A Different world	0	1	0	0	1	0	1
Arrow	0	1	0	1	0	0	1
Dreaming	2	0	1	0	0	1	2
Dream	1	0	0	1	0	0	1
Subconscious	1	0	0	1	0	0	1
Therapy	1	1	0	0	1	1	2
Entertainment	1	1	1	1	0	0	2
The Director of Nature	1	0	1	0	0	0	1
Flower	0	1	0	0	1	0	1
Nature	1	0	1	0	0	0	1
Facilitation	0	1	1	0	0	0	1
Art Creation with the spirit	1	0	1	0	0	0	1
Eyesight	1	0	0	1	0	0	1
The way to express yourself	1	0	0	1	0	0	1
Total	<b>13</b>	<b>12</b>	<b>10</b>	<b>8</b>	<b>5</b>	<b>2</b>	<b>25</b>
Percentage	<b>15.1%</b>	<b>22.6%</b>	<b>19.6%</b>	<b>25.8%</b>	<b>17.2%</b>	<b>7.1%</b>	<b>17.6%</b>

## f. Changeable structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	
Universe	1	0	0	1	0	0	1
Computer	1	0	0	0	1	0	1
Baby	2	0	1	0	0	1	2
Magician	1	0	0	0	1	0	1
Beginning of birth	1	0	1	0	0	0	1
Material	0	1	0	0	0	1	1
Dreaming	1	0	0	1	0	0	1
Thoughts in us	1	0	1	0	0	0	1
Innovation-original thinking	1	0	0	1	0	0	1
Sea of Thought	1	0	0	0	0	1	1
Musical	1	1	0	0	1	1	2
Subconscious	1	0	0	1	0	0	1
Perspective	0	1	1	0	0	0	1
Factory	2	0	0	1	0	1	2
Space Vacuum	0	1	0	0	1	0	1
Path	1	1	1	0	1	0	2
Surprise egg	0	1	0	0	0	1	1
Tree	0	1	0	1	0	0	1
A Different world	1	0	0	0	1	0	1
<b>Total</b>	<b>16</b>	<b>7</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>23</b>
<b>Percentage</b>	<b>18.6%</b>	<b>13.2%</b>	<b>9.8%</b>	<b>19.4%</b>	<b>20.7%</b>	<b>21.4%</b>	<b>16.2%</b>

## g. Holistic structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	
Cartoon	1	0	1	0	0	0	1
Human	0	1	1	0	0	0	1
Design	1	0	0	1	0	0	1
Story Narrator	1	0	1	0	0	0	1
Life itself	0	1	0	0	0	1	1
Freedom	1	0	0	1	0	0	1
Child	0	1	0	0	1	0	1
Mixer	1	0	1	0	0	0	1
<b>Total</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>8</b>
<b>Percentage</b>	<b>5.8%</b>	<b>5.7%</b>	<b>7.8%</b>	<b>6.5%</b>	<b>3.4%</b>	<b>3.6%</b>	<b>5.6%</b>

## h. Uniform structure

Metaphors	Gender		Grades				Total
	Female (86)	Male (53)	1st Grade (51)	2nd Grade (31)	3rd Grade (29)	4th Grade (28)	
Mathematics	2	1	2	0	1	0	3
Mind	0	1	1	0	0	0	1
Ratio and proportion	0	1	0	0	0	1	1
Poetry	1	0	0	1	0	0	1
Marketing	0	1	0	0	0	1	1
Child	0	1	0	0	1	0	1
Geometry	0	1	0	0	1	0	1
Nature	1	0	1	0	0	0	1
Advertiser	1	0	0	0	0	1	1
<b>Total</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>11</b>
<b>Percentage</b>	<b>5.8%</b>	<b>11.3%</b>	<b>7.8%</b>	<b>3.2%</b>	<b>10.3%</b>	<b>10.7%</b>	<b>7.7%</b>



#### 4. Conclusion and Suggestions

The perceptions of students who received Graphic Design education were determined by metaphors according to gender and grades. The majority of the students participated in the study produced metaphors with positive and abstract. First of all, metaphor is not the phenomenon of itself, it is only a symbol. If this was the case itself, the metaphor would not be needed. Therefore, the metaphor is different from the fact that it represents. Although it presents a very strong perspective on this phenomenon, it is often less than that. Many metaphors must be employed to compensate for this situation. (Yob, 2003: 133-134; Saban, Koçbeker & Saban, 2006: 504).

In the study, many metaphors related to the concept of graphic design have been produced but mostly consist of abstract concepts. There are studies show that art education increases students' abstract thinking abilities (Mutlu & Kanat, 2017: 732). Students mostly have created positive thoughts about graphic design by using metaphors. In the literature, this kind of study has not been found related to the students who received graphic design education. Özgün, Gürkan and Kahraman (2018) revealed the perceptions of prospective teachers about the concepts of “science” and “scientists” through metaphors, and in this study, prospective teachers needed many metaphors.

According to the research findings, graphic design students generally perceived the concept of graphic design as an unlimited structure (18.3%). Because, communication is the basis of graphic design that has contemporary and dynamic structure. As Becer (2015) stated, “the graphic designer has to present a contemporary knowledge using contemporary tools and materials in a modern sense of appreciation. Therefore, designer should closely follow current trends, artistic, philosophical, political, sociological issues and developing technology. In order to be successful in this field, designers have to keep its information up to date and maintain the innovation. This means lifelong learning. On the other hand, the graphic design, which takes its place in every area of life, is used in an unlimited practical area such as the signs used to prevent accidents in traffic, the table showing the amount of cholesterol in the food consumed and the movie trailers (Twemlow, 2011; Akt: Atalay & Kanat, 2018).

According to the findings, it is seen that gender factor plays a decisive role in the graphic design concept of the students. In the study, female students perceive the concept of graphic design as an “unlimited structure” (19.8%) whereas male students perceive the concept as a “target-oriented structure” (22.6%) as seen in figure 1.

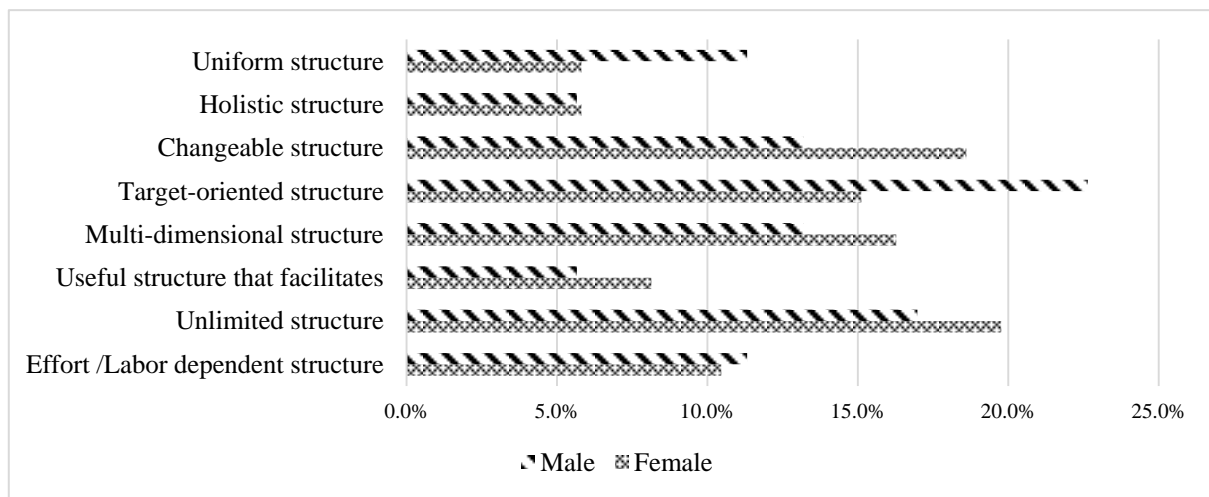


Figure 1. Gender Distribution of Categories

There are studies showing that the gender factor as in the research findings affects the creation of metaphor when the literature is reviewed (Özgün et al., 2018; Yüceil, 2015; Akyıldız, 2017; Yıldız, 2014). However, there are studies that do not show parallelism with the findings (Kelleci, 2014; Pektaş & Kıldan, 2009; Beyoğlu & Ergin, 2018).

The other finding obtained from the study is that the grades of the university students who take graphic design education is an effective factor on the perception of graphic design concept. In the literature, there are studies that support the findings on this aspect (Özgün et al. 2018; Akyıldız, 2017). Grade factor is effective in creating metaphors as seen in figure 2. Most created metaphors for the concept of graphic design are “unlimited structure” among most of 1st Grade and 3rd Grade students. The concept of graphic design is perceived as a “target-oriented structure” by 2nd Grade students and perceived as a “changeable structure” and a “labor-dependent structure” by 4th Grade students. It is important that Grade 4 students, who have more knowledge of the concept of graphic design than others in terms of professional field knowledge, perceive as the “effort/labor dependent structure” (21.4%) and changeable structure (%21.4).

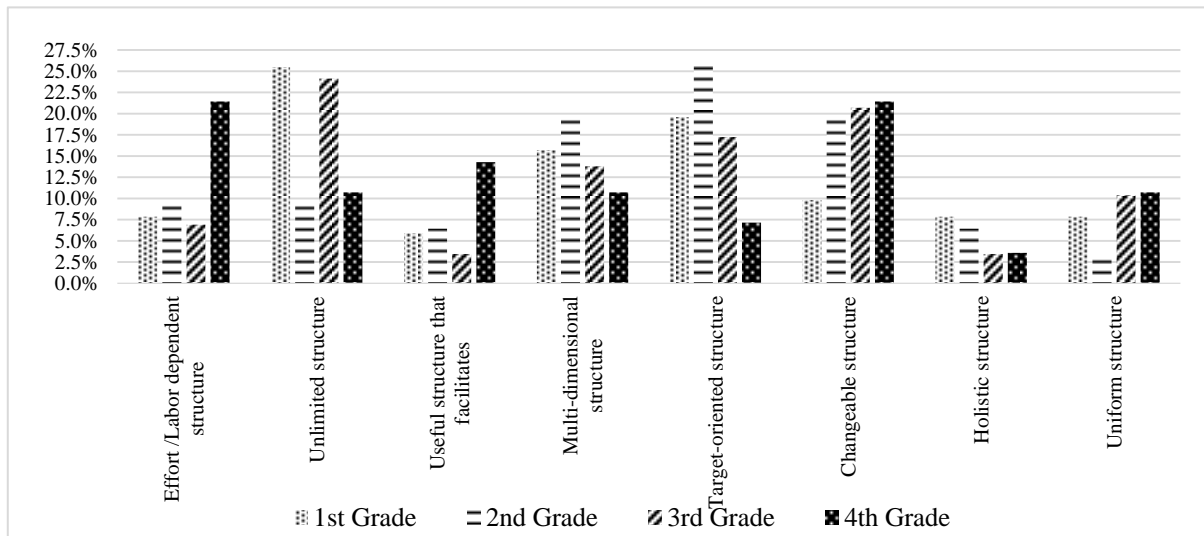


Figure 2. Grade Distribution of Categories

It is important to emphasize that the field of graphic design, which requires lifelong learning, is an area that requires labor and effort. Self-development, accurate understanding of the nature of the graphic design and being aware of this is positive results of the this research. The metaphors obtained in the study may be the source for the researchers who will work in this field.

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