



Basic design course through art-based research in interior architecture education

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Abstract

This article presents the basic design course applications based on the design education of first-year interior architecture students. This study aims to emphasize the importance of education in the design-oriented thinking process with practice through the content of the basic design course. Within the scope of the study, art-based research in interior architecture education was carried out, and the intersections of its results are described. In the studio, basic design elements and principles were conveyed with the techniques commonly taught in schools, and architectural movements were given to students as term papers for research. The study directs the student to create 2D and 3D compositions by combining the studies he/she has done during the term and the research assignment. The findings show that students can reflect on their research on architectural movements to new three-dimensional abstract spaces by combining them with basic design education. While grounding this reflection, the design process of the students is based on form and elements without color. The results also show a significant correlation between students' practices and Gestalt Principles. This article emphasizes the importance of applying basic elements and principles of design and being integrated with field-specific studies to achieve better results in design education. This study is an experimental and original studio product. With the basic design education given only in the first semester, the students were given examples to determine and understand forms and approaches without color knowledge, especially through basic principles, using architectural movements instead of abstract expression.

Keywords: art-based research, basic design, design thinking, gestalt, interior architecture

1. Introduction

Education is a social process that provides supervised individual development. It plays a vital role in every step of life. Therefore, it is essential to establish the proper connection of the professional culture with the social culture and update education according to the needs of the developing society. A master-apprentice relationship existed in art and design education history until the 17th century. In ancient times, it was known that craftsmen worked for money and gave lessons to their students in exchange for money (MacDonald, 2004). After the 17th century, academies began to emerge, emphasizing vocational education. In the 19th century, the Industrial Revolution transformed the trends in production and moved the communication between art and design from master apprenticeship to academic platforms (Ranjan, 2005, p. 15).

At the same time, with the emergence and spread of trends that question formal and functional priorities in interior design, education programs were seen in this field. Academies on art and design started to come to the fore in vocational education. The first art academy with a regular curriculum,

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Article history: Received 24 March 2023, Accepted 19 April 2023, Published 30 April 2023

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École des Beaux-Arts (Fine Arts School), was established in France (Pile, 2000, p. 244). Studio model in education programs has drawing, anatomy, perspective, and history lessons (Pile, 2000; Dilmaç, 2010); painting, sculpture, architecture, and engraving departments are separated after 1863 (Dilmaç, 2010, p. 72). It is one of the schools that form the basis of today's art and design education with its studios and approaches to education, and similar education is given in universities. What distinguishes architectural education is its focus on learning by doing/experience (Schön, 1985, p. 89). The main goal of Deutscher Werkbund German Industry, founded in 1907, was to gather artists and designers under one roof and improve the quality of the country's products (Malnar & Vodvarka, 1992). The philosophy put forward by Werkbund later formed the basis of Bauhaus's ideas and teachings. The Bauhaus School (Das Staatliche Bauhaus) was established in 1919. Its founder Gropius aimed to make the school an open school for ideas, a place for intellectual activity and creativity, and to combine art, craft, and architecture (Malnar & Vodvarka, 1992, p. 173). Bauhaus education, which De Stijl also influences, is greatly influenced by the design-science relationship and the ideas of developing methodology in design (Cross, 2001). It is one of the critical features of the school to make applications in the studios to have information about the industry, materials, and production. The studio-based courses called Vorkurs (Basic Design) taught in the first six months of the curriculum aim to reinterpret the boundaries of abstract approaches in architectural education and develop design practice skills based on conceptual references (Bulat et al., 2014). It has developed an applied education proposal structured with Bauhaus methods and principles, which provides the opportunity to experience basic design education independent of formal analysis and abstract experience concepts on concrete materials (Türkmen, 2020, p. 230).

Basic Art/Design Education (Initial Education, Enseignement Préliminaire, Foundation Course, Vorkurs) formed the basis of the education process in design and architecture schools. It has been included and developed in the Basel School of Design programs, Vkhutemas, Bauhaus, Chicago Bauhaus and the Ulm School (Hochschule für Gestaltung) (Boucharenc, 2006; Meggs & Purvis, 2006). The most important breakthroughs in Basic Design Education took place within Bauhaus. The education process developed in this school has become an essential reference for other schools and today's Basic Design Education process. With the developments in the field of education from past to present, as in every field, learning and teaching methods and education structure in the 21st century have been updated with new approaches, and design thinking has come to the fore, especially for all fields. Design thinking, which constitutes the basis of design education, has guided the students in developing their approaches and ways of seeing design principles. In this study, in which art-based research on design education was conducted, an evaluation was made, especially on the basic design course given in the first year of all design education.

1.1. Basic Design Course

Design is transforming a form of communication and expression into a visual language. Design requires solving any problem with imagination as well as knowledge and being solution-oriented with aesthetic concerns. Design is the process of solving problems, producing new things or transforming useful things (Friedman, 2003). The concept of design and the design-oriented thinking structure includes more than just an approach to produce a final product. At the same time, the design expresses a process. Design thinking is an analytical and creative process that includes experimentation, prototyping and modeling, feedback, and redesign (Razzouk & Shute, 2012, p.330). Meinel and Leifer (2011) express design thinking as human-centered, which examines and solves problems by blending many disciplines. Brown (2009) also states that a human-centered problem-solving method focuses on original and innovative solutions. Design thinking is, therefore, defined simply as the problem-solving process in line with needs. However, when considered in detail, the message, source, and evaluation processes, which are always included in the communication processes, as well as feedback and behavior, are included in this process. This thinking approach is adopted with a good analysis of the whole process. Although it is stated that it is completed with the problem formation and the design completion, feedback is also one of the critical sections since it is made for needs. In design education, feedback should have the same

importance as completing the process at this point. In the context of being problem-focused in the creative process, the individual highlights the solution with all academic knowledge and background experiences. In this context, design education has an individual and applied structure that blends all experiences and teachings.

Design education helps students develop the expression of the concept with their creativity. Design education can be explained as learning a new language, the forms of expression that will enable this language to communicate, and the thought system of this language (Ledewitz, 1985). This visual language is the basis of creation in design. The designer must be equipped with this language's principles, rules, and concepts for developing visual editing skills (Wong, 1993, p. 41). Students develop visual perception and design skills with design elements and principles in design education. Visual perception transforms the sensory information acquired by the living thing from its environment through the visual organ into a meaningful whole at the end of a mental process (Goldstein, 2007; McKim, 1980). Visual perception development in design education is provided by learning all the basic criteria in design applications. Subject teaching is based on traditional education, significantly increasing students' creativity and providing non-verbally expressed knowledge as a source of actions based on abilities (Hodgkin, 1985, p. 146). Education is the process of learning a form of communication and expression for design students. It includes solving problems with imagination, producing based on aesthetic concerns and needs, and transforming them into useful models with experience.

Furthermore, the critiques it receives in the studio environment also cause the feedback process to be completed and focus on creative thinking for redesign or revision. Design thinking in the educational environment also includes students working in cooperative teams, giving mutual criticism with practices, and self-development. At the same time, this process, which can be considered intuitive, proceeds similarly in professional life, so students need to realize the basics of design education under appropriate conditions. The development of the students and the improvement of the learning methods of the instructors proceed with a design-oriented mindset. In addition, it is one of the basic criteria for design education and learning and is included in the design process. Basic design education, the subject of this study, is the most important part of this process, forming the basis of design education. Basic Design Education focuses on using this skill in the design process. The course's main objective is to develop students' perception, interpretation, creative idea generation, and visual expression skills.

Basic design education is a core course for design and art disciplines. The basic design course deals with the abstract and conceptual thinking necessary for the problem-solving action involved in the design. Basic Design Education is a system that regulates the production of ideas (Denel, 1981), basic education in training the creative powers of the individual, controlling and using the experience and knowledge related to visual perception (Balci & Say, 2002, p. 8), learning the design language and processes in general, and organizing individual creativity. (Boucharenc, 2006). The basic design course plays an essential role in design education in generating ideas and making factual inferences from an abstract concept. It centers on vision, tries to systematize the existence of a visual language, and develops its methods accordingly (Seylan, 2005, p. 17). It aims at an educational environment that not only focuses on visual sensitivity but also examines how to understand problems and produce solutions (Chastain & Elliot, 2000). Its structure is the education of visual perception-knowledge, thought, and aesthetic animation-mental structuring of simulation, invention-inspiration-creativity process, developing-raising hand-eye-brain abilities, activating dream-imagination-intuition powers (Atalayer, 1994, p. 77). Within the scope of this course, it was stated as the basis Itten to release the student's artistic talent and creative powers, facilitate the student's career choice and present the principles of creative composition, form, and color rules (Wick, 2000, p. 101). The Basic Design course can be enhanced by students' curiosity and experience, enabling them to discover a personal bond with various elements and develop creativity (Boucharenc, 2006, p. 2). In this context, this course, which forms the basis of design education, also provides space for the student to perform design-oriented thinking. This system of

learning and thinking is acquired and developed through experience. Carroll et al. (2010) stated in their study that the design-oriented approach affects learning positively and that activities with a design-oriented approach improve students' empathy skills, help them get closer to each other, and overcome difficulties by developing their feelings of trust. In other words, basic design is a fundamental field that targets teaching and interaction. It aims not only analytical learning but also emotional development.

Considering the structure of basic design education, it is seen that there are a group of elements and principles. Basic design is divided into two parts elements of design and principles of design. In general, the structure of the course in interior architecture departments is to learn the elements and principles of design, examine examples, to create and evaluate two and three-dimensional compositions. Two- and three-dimensional studies are essential for students to understand space (Chen & Heyligen, 2006). Within the scope of this course, elements of design include point, line, stain, form, texture, light-shadow, interval, and principles of design include contrast, repetition, hierarchy, sovereignty, balance, unity, harmony, rhythm, and space-fullness. The application of the theoretical subject, which includes elements and principles of design for design fields, by the students, constitutes the basis of the course. Design education in the fields of art and architecture aims to provide skills related to the design process. In particular, design disciplines take place by prioritizing interaction, which is one of the requirements of design-oriented thinking in the studio environment. Studios are an environment/culture where students and lecturers share their experiences. They are environments where differences and original expressions are discussed and developed. Therefore, mutual communication is necessary for design education, and it has a feedback-based structure.

Moreover, since it is a visual and applied field, it can achieve its purpose with the presentation, sample, and experimental studies (Özsavaş Uluçay et al., 2022). This study includes the applications made within the scope of the Basic Design course in the interior architecture department. In addition, it aims to show the structure of education based on one-to-one practice and to share the method of teaching the course and its outcome.

2. Material& Method

As a methodology of the study, a literature review has been made about basic design education as a primary way to learn elements and principles of design. The qualitative research method is used in this study and is an application made with the students in the basic design course as art-based research. Art-based research can be defined as the systematic use of art and the actual making of artistic expressions as the primary way of understanding and examining researchers' experiences (McNiff, 2007, p. 29). Research and teaching are merged with arts-based projects, and the approach used can lead to the development of learning strategies that lead to better practice (Greenwood, 2012). Art-based research has emerged as an application of the epistemological process of artistic knowing and inquiry, an extension of studies investigating the experience of art in higher education and professional practice (McNiff, 1998). This study employed a studio-based research method involving studio activities using materials, techniques, tools, and aesthetic analysis (Greenwood, 2012). Also, in this study, students create a visual composition by developing the information conveyed within the framework of an artistic approach. Students studied architectural movements and created a new experience with the forms of expression with what they learned in the basic design course. This course allows students to express and develop their observations, impressions, feelings, designs, and images through art education by revealing their creative powers.

Within the scope of this study, it was requested to prepare an end-of-term project based on the topics that Interior Architecture first-year students learned in Basic Design education. Therefore, the following topics were given for the project, and the students created two and three-dimensional abstract compositions describing the topics. This course was taught by distance education method in the Department of Interior Architecture and Environmental Design in the fall semester of the 2020-2021 Academic Year. The research assignments given include architectural movements, and

the students research the subject and then create a composition with abstract thought on this idea and visual activity. Design thinking takes place with the experimentation, prototyping and modeling, feedback, and redesign stages that Razzouk and Shute (2012) stated in their study.

Throughout the semester, literature and theoretical knowledge were transferred within the scope of the course. This course includes elements of design (point, line, stain, form, texture, light-shadow, and interval) and principles of design (contrast, repetition, hierarchy, sovereignty, balance, unity, harmony, rhythm, and space-fullness). During the 15-week semester, the information given before the research assignment and the applications are summarized in the table below (Table 1).

Table 1 Basic Design course content

| Week | Topic | Information | Application |
|-------|--|--|---|
| 1 | Point | Design education and basic design course information. The concept of point, its place in art and design. | Abstract square lines, abstract curvilinear lines, object creation point work. |
| 2 | Line | Basic information about the concept of line. Hue with line. | Free line work. Light-medium-dark tones with straight-curved lines. |
| 3 | Line Direction, Movement, Optical illusion | Line as a design element. Creating direction, movement and optical illusion based on the line. | Abstract line work with direction and motion concept. Optical line work. Free line work in different thicknesses. |
| 4 | Stain, Form, Shape Ground Relation Form, Surface Measure, Harmony | Stain, shape, form, form and surface concepts. Creating measure and harmony. | Creating harmony with stain work. Form, visual organization, 3d collage harmony work. |
| 5 | Light-shadow Hue-value | Basic information of vision and light. Creating light-shadow gradation. | 2d light-shadow work. Perspective, 3d light-shadow work. |
| 6 | Stain-Shape-Surface Balance, Symmetry | Creating balance, symmetry and asymmetry with stain, shape, surface investigations and obtained data. | Stain work from the object. Symmetrical, asymmetrical balance. |
| 7 | Repetition, Rhythm | Generating form with full repetition, spaced repetition, variable repetition. Repetition-rhythm practice. | Repetition with forms. Rhythm composition with repetition. |
| 8 | Ratio, Interval, Space-Fullness, Hierarchy, Emphasis, Sovereignty | Information about ratio, interval, hierarchy, emphasis, sovereignty. Space-fullness practice. | Space-fullness practice. 2d emphasis, sovereignty work. 3d emphasis, sovereignty work. |
| 9 | Texture, Unity- Integrity, Diversity, Contrast | Texture types, spatial texture, contrast types. | Texture work. Texture-contrast practice. |
| 10-15 | Architectural movements | Research topics, information about the presentation. | Student presentations. Line, stain, form collage and 3d model. |

In general, the course structure in which the study is conducted is about learning the elements and principles of design, examining the examples, and creating and evaluating two and three-dimensional compositions. In light of these topics, applications were made within the scope of the course, and the results were revealed. The given project assignment has three main objectives.

- Students research the architectural trends given throughout the semester about their fields and reinforce the knowledge they have learned in other courses.
- Students develop the ability to create two- and three-dimensional compositions on any subject in line with basic design principles.
- As a result, students' work is evaluated in the workshop environment within the scope of Gestalt principles, and feedback is provided. All students have information about each subject and have the opportunity to criticize and evaluate other studies mutually.

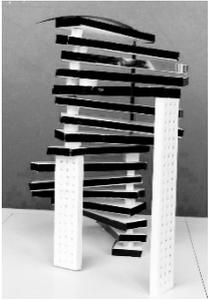
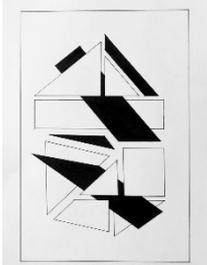
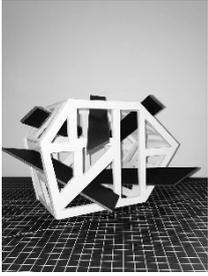
Thus, it was ensured that the students made detailed examinations about their fields, had basic knowledge about architectural movements, and designed compositions that would describe them

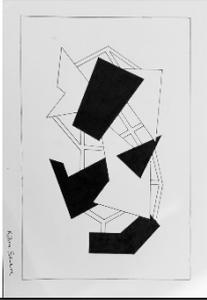
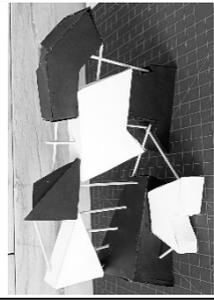
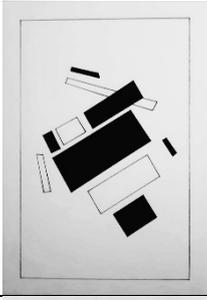
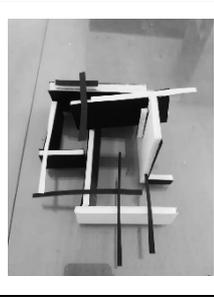
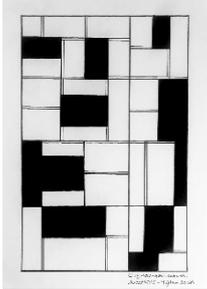
by considering a concept, concept, or movement with the abstract thinking method. In general terms, art education is a multi-faceted interaction. Art education is a process guided by the instructor in line with the student's ability and interest and is a student-educator, student-student, and student-environment interaction. In this context, active learning can be mentioned. In active learning, the learners are responsible for their education, recognize themselves, explore, wonder, share, make decisions, and consciously bring together mental abilities and bear responsibility as a part of the learning process (Polat & Karagöz, 2020, p. 420). Mutual evaluation in the main objectives plays an active role in student-instructor, student-student, and student-environment interaction. As a result of the weekly topics covered, students explore, wonder, share, make decisions, and consciously bring together mental abilities as part of the learning process.

3. Findings and Results

In Basic Design Education, theoretical information and art-based information in the same field with applied studies in the visual field are for a particular purpose and in a specific organization. Abilities and skills; by seeing, kneading, drawing, constructing, and creating a connection with objects and reality, it is guided by behaviors and awareness of this subject (San, 1983). In this study, the main aim is to direct the knowledge they acquired in basic design education to create visual compositions. They were asked to research architectural trends within the studio's scope, especially for their profession. As a result of their research, two and three-dimensional compositions describing the movement was designed. In addition, the knowledge of color was planned as the subject of the second term, and students were expected to explain the trends in their research in black and white, mainly based on their features, such as form, shape, shape, and texture. Regardless of all course content and topics, one of the issues affecting the course is that it is an online course. The course was taught during the pandemic period, only online criticism was given, and it is important to know that students were limited in the material during the lockdown. The flow and compositions of some selected studies are given below (Table 2, Table 3).

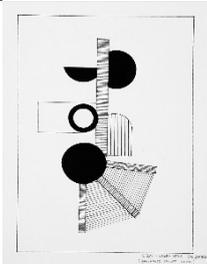
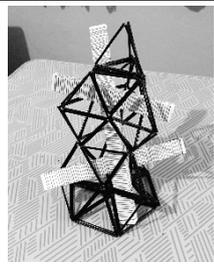
Table 2 Information about movement and 2d, 3d compositions prepared by students

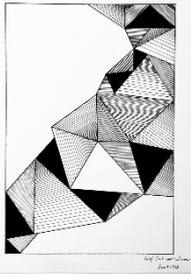
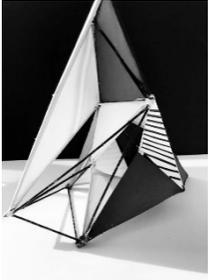
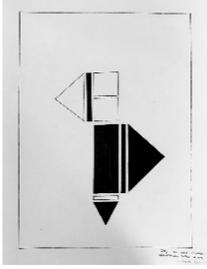
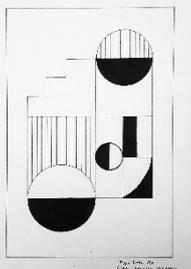
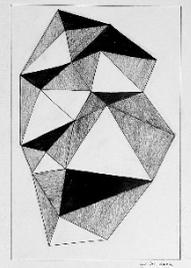
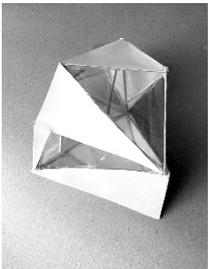
| Concept | Basic Information | 2D Composition | 3D Composition |
|-----------------------------------|--|--|---|
| Art Nouveau 1890-1910 | It is a movement in which decorative ornaments, patterns, arches, curving lines, organic shapes, and sculptural, vegetal ornamentation are used. Commonly used motifs include stylized versions of leaves, flowers, vines, insects, animals, and other natural elements. Apart from the organic forms used in this movement, different materials and earth colors are seen, and materials in natural forms are common. |  |  |
| Expressionism 1905-1920 | Expressionism is in the foreground with extreme angles, flattened forms, garish colors, and distorted views. It is the expression of emotions, thoughts, and experiences by transforming them into simple forms by distorting reality. It is a dominant movement in architecture and literature. |  |  |

| | | | |
|---|--|---|--|
| <p>Futurism 1912-1920</p> | <p>Futurism is based on technological advances, dynamic structuring, speed and energy, vitality, and change approach in the modern period. Futuristic designs feature long dynamic lines, a sense of motion, and strong chromaticism and are at the forefront of architecture in walls and corners in the form of angled cutaways.</p> |  |  |
| <p>Suprematism 1915-1917</p> | <p>Suprematism is structured as a new understanding of freedom and escape from the real world, mainly reflected in art fields. Basic geometric forms such as colored circles, squares, lines, and rectangles are kept in the foreground in the compositions. With this structuring, it emphasizes the superiority of pure emotion and perception.</p> |  |  |
| <p>De Stijl 1917-1931</p> | <p>The De Stijl movement takes shapes and colors simply and uses geometric forms such as the straight line, the square, and the rectangle. It is also a modern art form that values abstraction and simplicity. The primary colors, the dominant use of black and white, horizontal and vertical clean lines, and right angles are seen in art and architecture.</p> |  |  |

The students who studied the currents in the examples in Table 1 created 2 and 3-dimensional compositions after their detailed research. In the *Art Nouveau* work, it was seen that shapes and a sculptural design were created in the 3d composition with curved lines and a vegetal ornamentation approach. In *Expressionism*, a composition was created by distorting reality and transforming it into a form on distorted structuring and forms. The flow feature related to the pieces passing through the central mass was emphasized in the 3d work. In *Futurism*, a composition consisting of long dynamic lines was created, and angled corners were included. The same composition has also been adapted to 3d work. In *Suprematism*, there is a composition created from irregular rectangular forms. The superiority of perception is expressed in 3d work. In the *De Stijl*, a composition was created using geometric forms consisting of the straight line, the square, and the rectangle, and a 3d design was made with black and white balance using the same simplicity.

Table 3 Information about movement and 2d, 3d compositions prepared by students

| Concept | Basic Information | 2D Composition | 3D Composition |
|-------------------------------------|---|--|---|
| <p>Bauhaus 1919-1933</p> | <p>It is a movement in which functional, practical, mass-produced simple designs and basic geometric forms are used. Even though the Bauhaus School is famous for its architecture, simple color schemes, functional forms, holistic designs, furniture, and typography designs are at the forefront with their unique style.</p> |  |  |

| | | | |
|--|--|--|---|
| <p>Modernism 1920s-1950s</p> | <p>Modernism is a design movement completely devoid of ornaments and has simple, clean lines. This trend favors technology, mass production, functionality, and practicality, mainly white and neutral color palettes combined with geometric forms. In this design approach, the combination of pureness and aesthetics is the essential feature of architecture.</p> |  |  |
| <p>Minimalism 1960s-1970s</p> | <p>It is a design style adorned with minimal design principles like soft colors, predominantly white, gray tones, cream tones, and neutral colors. The texture is at the forefront with various materials. Quite plain, simple, functional, easily determined forms are in the foreground. Simplicity and pureness are the main elements.</p> |  |  |
| <p>Postmodernism 1970-1990</p> | <p>Postmodernism is known as a structured movement against modernism. Contrary to modernism, its decorative elements, asymmetrical forms, and bright and vibrant colors are used, and its relation to function is not prioritized. It adopts a versatile structure that ignores all the basic foundations associated with art and design. It is known as the return of ornament.</p> |  |  |
| <p>Deconstructivism 1980s-1990s</p> | <p>Deconstructivism exhibits a harmonious approach, often far from continuity and symmetry, which adds a fragmented feeling to the building. Its basic architectural principles are defined as the redefinition of shapes and forms while visually striking and confusing beyond classical patterns with its deformation.</p> |  |  |

The students who studied the currents in the examples in Table 3 also created 2 and 3-dimensional compositions after their detailed research. In the *Bauhaus*, a composition was created with geometric forms, and an approach similar to typographic designs was created. In *Modernism*, the composition has simple, clean lines. Hue has been done with geometric forms and lines, creating an aesthetic structure. It is seen that similar pure forms in 3d design. In *Minimalism*, a composition was created with minimal design principles. Simple, easily determined forms and pureness are in the foreground. In the *Postmodernism* work, the composition has asymmetrical forms. Similar forms with a more ornamental understanding are also included in 3d design. In the *Deconstructivism* work, a composition far from symmetry was created, and a confusing approach in 3d work was made with a design that exhibits transparency and continuity.

With this basic design first semester study, students learned by experimenting even with compulsory distance education, shared their experiences, and commented on each other's work. A course technique that develops creativity and simultaneously provides multi-faceted active learning has been applied. As Schön (1985, p. 63) stated, learning by experimenting makes design education privileged. In another study, Yang and Hsu (2020) investigated the differences in the experience of student groups with high and low creativity tendencies. This study concluded that design thinking increased the self-efficacy of students with low creativity tendencies and improved

the creativity of all students. In addition, the studio prepares a suitable environment for a knowledge-creation process in which learning can occur. The studio is carried out in this way in face-to-face education, but in this study, the students have completed education with limited materials and online. However, they had the chance to receive criticism from both the instructor and each other for 8 hours each week. Therefore, interaction has positive effects on the design thinking process.

In this study, it is seen that the students created compositions by determining some features of the given architectural movements, such as shape, form, and texture. They used the elements and principles of design concepts they had learned throughout the term while creating these compositions. This situation emerges as a point where basic design concepts integrate with visual perception. In other words, a significant correlation emerges regarding Gestalt Theory in compositions created with a perception process when considered from a different perspective. As a bottom-up-based theory like induction, Gestalt reaches higher cognitive processes by influencing perception (Soegaard, 2014). Gestalt theory is based on the idea that the human brain will subconsciously try to organize designs in a system that creates a whole from parts (Chapman, n.d.). Thus, the basic design principles learned in the basic design course reveal Gestalt theories in creating the composition. Compositions made by students associated with Gestalt Theory; include similarity, continuity, closure, proximity, figure/ground, symmetry, and order.

Similarity: It is the perception of similar elements in terms of many features, such as form, color, and type. Elements tend to be perceived if they are close together, similar to one another, form a closed contour, or are in the same direction (Wertheimer, 1923; Rock & Palmer, 1990; Soegaard, 2014). Similar elements are perceived as more related than different ones (Lidwell et al. 2015), and the human brain tends to group them.

Continuity: The perception of items going in the same direction by grouping them. The human eye follows the straightest path when viewing lines, regardless of their appearance (Chapman, n.d.). It is stated that the endpoints of the elements should be arranged so that they form continuous rather than sudden lines (Lidwell et al., 2015). If people perceive objects as moving in a specific direction, they think they continue to move in that way.

Closure: It tends to complete incomplete or interrupted forms and patterns (Lidwell, et al. 2015; Soegaard, 2014). Those complementing certain elements are perceived as belonging to the same group (Wagemans et al., 2012). It is the condition that two independent figures will combine to form a single, utterly different figure (Wertheimer, 1923). The human brain has the structure of completing the missing parts, so parts that seem missing in the design can turn into parts that complement each other.

Proximity: When items are placed close together, people assume they are in the same group because they are close to each other and separate from the others. Things close together are perceived as more related than things far from each other (Lidwell et al., 2015). The grouping format that includes the smallest range is the most natural (Wertheimer, 1923). The closer the parts of a design are to each other, the easier it is to perceive them as a whole.

Figure-Ground (Prägnanz): It perceives the relationship between form and surrounding space. Depending on how people view an image, they view the figure (foreground) or the floor (background) as prominent. Gestalt psychology says that the mind simplifies to understand the visual environment and reduces the shape to the most specific and smoothest geometries in a composition consisting of shapes (Ching, 2014, p. 38). The figure/ground is similar to the closure principle, and the exciting thing is that the figure and ground contain two different images (Chapman, n.d.).

Symmetry and Order: Symmetry is the most basic and permanent aspect of beauty and the visual equivalence among the elements (Lidwell et al., 2015). The trend is to perceive objects as symmetrical shapes that form around their centers (Soegaard, 2014). It shows how the human brain perceives shapes quite simply.

While all the elements and principles taught in the basic design course are used to create a composition, create order and reach a meaningful design, it is seen that the features specified in the Gestalt principles are used. This points to how the human brain works in the productivity part of perception and design. In students' works, the perception of similarity as a form is frequently seen. The principle of continuity, in which the same forms are perceived in groups, is included in almost every composition together with the order within itself. Considering that only the form is worked on, it is based on the principle of closure, in which the stains are planned independently of each other, but are often perceived as a whole. The proximity takes place as an underlying feature of their compositions. In student studies, forms that are close and related to each other are included in groups. Although the figure-ground effect is perceived less, it is partially located between stains and forms. Finally, and the most powerful effect in the works, is definitely symmetry and order. These studies show a significant correlation between the perception of the human brain and design principles. Although the figure-ground effect is perceived less, it is partially located between stains and forms. And the most powerful effect in the works, is definitely symmetry and order. These studies show the significant correlation between the perception of the human brain and design principles.

4. Discussion and conclusions

École des Beaux-Art and Bauhaus strongly influence the contemporary or conventional approach to teaching by following the principles and rules that have been developed (Salama, 2009, p. 81). Studios, which are seen in education in two schools and are actively used in today's design education, include the principle of learning by doing; It is an education model that aims to increase students' awareness, understanding, and ability levels (Shoshi & Oxman, 2000). The basic design course is taught to students in the first year of design departments, educating the students on perception and fundamental principles based on the principle of learning by doing. It guides students in transforming visual perception into a meaningful whole at the end of a mental process (Goldstein, 2007; McKim, 1980). This course guides them to develop a design-oriented thinking approach, forming design education's basis. The structure of the course, consisting of a process that includes experimentation, prototyping, feedback, and redesign, fully coincides with Razzouk and Shute (2012)'s definition of design thinking. However, some students think independently of these teachings in their following lessons and when designing. It is seen that they try to rediscover what they have already learned without realizing it, and they have difficulty using the teachings within the scope of this course in their vocational courses. For this reason, the course content has been built on architectural trends and examples in their profession.

The design process involves recognizing the problems conceptually, researching, collecting information, and producing creative solutions. Even though its priorities are defined differently by considering it from different perspectives, the design points to a broad process that blends many subjects (Friedman, 2003; Brown, 2009; Meinel & Leifer, 2011, Razzouk & Shute, 2012). Vision, understanding, and visual perception are vital in this process. For this reason, Gestalt Theory constitutes the theoretical infrastructure of design. The basic design course is critical in the designer's expressing himself with two- and three-dimensional expression tools in basic education and creating this form of expression. The course's scope in this study is shown with fiction about the students' professions, how the course can be taught, and how it can be associated with their profession. It will be easier for them to associate these concepts when examining any design, structure, or visual design with what they have learned within the scope of this course, enabling them to manage the design language and processes. While this study aims to develop an example of a lesson plan, it also aims to show the connection with Gestalt Theories in using design elements and principles in the basic design course. In addition, this course aims to train students' vision and perception in different ways in creating compositions using only shapes without knowledge of color. In line with the results obtained, this study will create an indicator for Basic Design educators and contribute to a more practical education process. This study aims to guide similar studies in the future and contribute to the literature.

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Resume

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