APPROACHES CONCERNING THE SOLUTION OF A DESIGN PROBLEM IN BASIC DESIGN STUDIO

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Abstract

Introduction

The first year of transition from primary education to university education is critical for the institutions which give design training. The student profile of those coming from the primary education necessitates finding concrete answers to the questions given with concrete data. However all long architecture education the students are given abstract and visual data and are asked to create concrete designs as final product. In this period, students face such problems frequently inside and outside the studio environment and sometimes they lose hope unable to find a solution. It is only possible to get through this hard and saddening period with gaining experience and the communication between the student and the lecturer is somehow useful in solving this problem.

Within the context of this study, the approaches for solution of a design problem applied as the final work to the freshmen of Basic Design and Plastic Arts Studio of the Seljuk University in the 2007-2008 academic year, fall semester are discussed.

Materials

The freshmen of the Seljuk University Faculty of Engineering-Architecture, Department of Architecture were taken as the field of the study. In this context a design problem applied as the final work to the freshmen of Basic Design and Plastic Arts Studio of the Seljuk University in the 2007-2008 academic year, fall semester and the samples of solution for this problem were taken as the material of the study.

Methods

In the context of Basic Design and Plastic Arts Studio, the basic design elements and principles have been analytically given to the students and at the end of the lesson they have been asked to provide solutions to a design problem making use of these data. The students were asked to complete the assigned design problem in one month. The material necessary for the comprehension and solution of the design problem were provided and students were informed through intermediary studio corrections. The obtained final product/final work designs were transferred to matrix tables through photographing and comparatively evaluated.

Results and Conclusion

As a result, the comprehension of the lesson in its entirety and the students' skills in providing solution to a design problem were investigated considering the solutions provided for the design problems by the students. Under the light of such evaluations, it has been observed that the students' achievements, will and interest are reflected in the final product. It has been concluded that the final application conducted is important for the students who are in a period of transition to design problems and spatial design in view of improving their ability in providing alternative solutions and understanding the problematic of spatial design. It was also concluded that application of similar activities throughout the year might be useful in raising 3-D thinking skills, comprehension of spatial and problem solving skills.

Keywords: Basic Design, design problems, basic design education, design studio, the first year design education.

Introduction

The skills that are given during university education are different from those qualifications attained during primary and secondary education and maintained at later phases of life. Since such an understanding is shaped through theoretical knowledge, methodology of thinking and applications in departments that provide design education they have an exceptional place among other departments that provide undergraduate education. Students are not accepted to architecture departments, which have design based curricula, through general skills tests in Turkey which result in various difficulties for the students and problems occur during the practice of education. Hence, basic design education gains importance as a medium of conveying systematic knowledge, a ground for intellectual querying and application.

Basic Design Education

Each and every design in architecture and other visual arts are based on a set of visual factors. These factors appear as designs after they are clarified in thought and edited using particular elements and principles. These designs are obtained through the expression of one's visual accumulation in a particular order and discipline (Itten, 1970). Basic design education is a method of education used for the development of a person's skills and the use and control of his

visually-oriented accumulation. The concretization of the mental images in a particular order for any reason is called design, and the scientific discipline used in the development of the skills used during this process is called basic design (Hodgen, 1965). In other words basic design is systematically using a blend of the design methodologies and methods in education (Çınar, 1999).

Generally, Basic Design education is carried out under two headings. First, all the visual elements used during designing are defined. These are named the basic design elements and namely are: point, line, shape, direction, size, spacing, texture, movement, light-shading and color. The second heading is "the basic design principles" which aims at teaching how to use the basic design elements. This heading is sub-divided into two major groups. In the first place we have the use of basic design elements which is named fundamentals of basic design. It includes contrast, harmony, repetition and hierarchy. Secondly, the tools for criticising designs are listed which are called Basic Design Evaluation Principles. This includes the principles of dominance, balance and unity (Atalayer, 1979, Güngör, 1972, Gürer, 1990, Divanlıo lu,1997, Çınar, 1999).

Basic Design Education at Seljuk University

Selçuk University offers architectural education since 1970s. Basic design and plastic arts is a 4-credit course offered during the first semester of the first year of education. The course contents embody basic design elements and basic design principles in a systematic way. This process moves from the simpler to the more complex. In short, the aim of the Basic Design course is informing the students on the transfer process of an abstract idea into a design and developing the skills concerning such processes. A two-phase approach is followed during the Basic Design course. The first phase includes the theoretical information concerning the issue (one hour) while the second phase includes offering practical solutions to the design problems asked in the studio environment.

Basic Design Education Final Design Problem and Application

During 2007-2008 academic year fall semester the courses were carried out following the programme designed in view of the aims and methodology of the course (Table 1) and applications were made. The applications included not only studio work but also homeworks to consolidate the subjects studied.

	Basic Design Elements							Basic Design Principles				
								Basic Design Fundamentals		Basic Design Evaluation Principles		
Date	05.10.2007	19.10.2007	26.10.2007	02.11.2007	09.11.2007	16.11.2007	23.11.2007	30.11.2007	14.12.2007	28.12.2007	04.01.2008	23.01.2008
Subject	**Point**	**Line**	**Shape- Direction**	**Size-Spacing**	**Texture**	**Movement**	**Color**	**Contrast-Harmony-Repetition**	**Hierarchy**	**Sovereignty** **Assignment of final work**	**Unity-Balance**	**Submission of Final work**

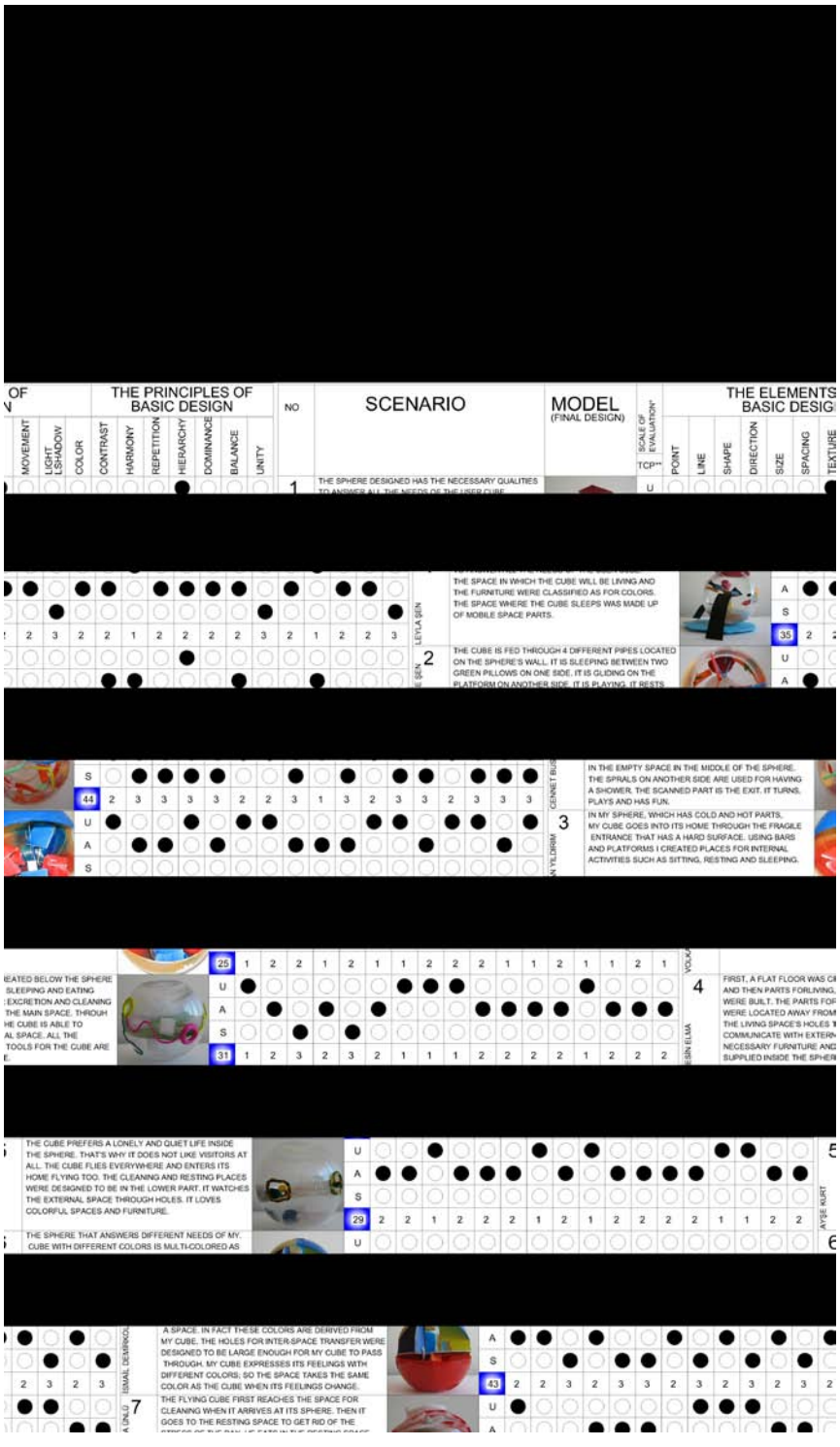
Table 1. Basic Design and Plastic Arts Course Plan for 2007-2008

This final application which we evaluate in this study embodies a consolidation of the entire lecturing and application process throughout the semester which necessitates using all the acquired skills. Such a project was interpreted as a step towards the comprehension of space. Students were requested to use the basic design elements and principles they have learned. One month before the submission of the final work, the students were given the following problem and all the necessary explanations were made:

*"Imagine a cube given that it is a living cube with the dimesions 3*3*3 cm. Build a life scenario for this cube and design a sphere with a diameter of 25 cm for this cube to realise its activities."*

In order to achieve a systematic evaluation of the work a "sphere shell" was given to the students. The students were requested to use the identical "sphere shell" for their own designs. When these designs were realised the students were requested to build a scenario for their cube and make their designs accordingly.

The final works produced as solutions to the design problem and the related scenarios are evaluated in the matrices designed (Tables 2, 3, 4 and 5). In these matrices the evaluation criteria (basic design elements and basic design principles) are given in the columns while the final products and evaluation scales are given in the rows. We aimed at using these matrices for evaluating to what extent the course contents were used while the designs were constructed.

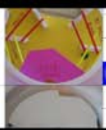

THE PRINCIPLES OF BASIC DESIGN
MOVEMENT
LIGHT &SHADOW
COLOR
CONTRAST
HARMONY
REPETITION
HIERARCHY
DOMINANCE
BALANCE
UNITY
NO
SCENARIO
MODEL (FINAL DESIGN)
SCALE OF EVALUATION*
TCP**
THE ELEMENTS OF BASIC DESIGN
POINT
LINE
SHAPE
DIRECTION
SIZE
SPACING
TEXTURE
1
THE SPHERE DESIGNED HAS THE NECESSARY QUALITIES
THE SPACE IN WHICH THE CUBE WILL BE LIVING AND THE FURNITURE WERE CLASSIFIED AS FOR COLORS. THE SPACE WHERE THE CUBE SLEEPS WAS MADE UP OF MOBILE SPACE PARTS.
LEYLA ŞEN
2
THE CUBE IS FED THROUGH 4 DIFFERENT PIPES LOCATED ON THE SPHERE'S WALL. IT IS SLEEPING BETWEEN TWO GREEN PILLOWS ON ONE SIDE. IT IS GLIDING ON THE PLATFORM ON ANOTHER SIDE. IT IS PLAYING. IT RESTS
CENNET BUSE
3
IN THE EMPTY SPACE IN THE MIDDLE OF THE SPHERE, THE SPIRALS ON ANOTHER SIDE ARE USED FOR HAVING A SHOWER. THE SCANNED PART IS THE EXIT. IT TURNS, PLAYS AND HAS FUN.
IN MY SPHERE, WHICH HAS COLD AND HOT PARTS, MY CUBE GOES INTO ITS HOME THROUGH THE FRAGILE ENTRANCE THAT HAS A HARD SURFACE. USING BARS AND PLATFORMS I CREATED PLACES FOR INTERNAL ACTIVITIES SUCH AS SITTING, RESTING AND SLEEPING.
AN YILDIRIM
EATED BELOW THE SPHERE
SLEEPING AND EATING
EXCRETION AND CLEANING
THE MAIN SPACE. THROUH
HE CUBE IS ABLE TO
AL SPACE. ALL THE
TOOLS FOR THE CUBE ARE
E.
4
FIRST, A FLAT FLOOR WAS CI
AND THEN PARTS FORLIVING,
WERE BUILT. THE PARTS FOR
WERE LOCATED AWAY FROM
THE LIVING SPACE'S HOLES T
COMMUNICATE WITH EXTERN
NECESSARY FURNITURE AND
SUPPLIED INSIDE THE SPHER
ESİN ELMA
THE CUBE PREFERS A LONELY AND QUIET LIFE INSIDE THE SPHERE. THAT'S WHY IT DOES NOT LIKE VISITORS AT ALL. THE CUBE FLIES EVERYWHERE AND ENTERS ITS HOME FLYING TOO. THE CLEANING AND RESTING PLACES WERE DESIGNED TO BE IN THE LOWER PART. IT WATCHES THE EXTERNAL SPACE THROUGH HOLES. IT LOVES COLORFUL SPACES AND FURNITURE.
AYŞE KURT
5
THE SPHERE THAT ANSWERS DIFFERENT NEEDS OF MY CUBE WITH DIFFERENT COLORS IS MULTI-COLORED AS
6
A SPACE. IN FACT THESE COLORS ARE DERIVED FROM MY CUBE. THE HOLES FOR INTER-SPACE TRANSFER WERE DESIGNED TO BE LARGE ENOUGH FOR MY CUBE TO PASS THROUGH. MY CUBE EXPRESSES ITS FEELINGS WITH DIFFERENT COLORS; SO THE SPACE TAKES THE SAME COLOR AS THE CUBE WHEN ITS FEELINGS CHANGE.
İSMAİL DEMİROĞ
7
THE FLYING CUBE FIRST REACHES THE SPACE FOR CLEANING WHEN IT ARRIVES AT ITS SPHERE. THEN IT GOES TO THE RESTING SPACE TO GET RID OF THE

[redacted]

PRINCIPLES OF BASIC DESIGN					NO	SCENARIO	MODEL (FINAL DESIGN)	SCALE OF EVALUATION*	THE ELEMENTS OF BASIC DESIGN										THE BA	
REPETITION	HIERARCHY	DOMINANCE	BALANCE	UNITY				TCP**	POINT	LINE	SHAPE	DIRECTION	SIZE	SPACING	TEXTURE	MOVEMENT	LIGHT LSHADOW	COLOR	CONTRAST	HARMONY
○	●	○	○	○	15	I HAVE CREATED SUB-SPACES IN THE MIDDLE OF THE SPHERE WHERE IT CAN FIND ANSWERS TO ITS LIVING		U	●	○	○	○	○	○	●	○	●	○	●	○

[redacted]

UBE



A	○	●	●	●	●	●	○	●	○	●	○	●	●	○	●	●	●
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
29	1	2	2	2	2	2	1	2	1	2	1	2	2	1	2	2	2
U	●	●	○	●	○	○	●	●	●	○	●	○	●	●	○	●	●
A	○	○	●	○	●	●	○	○	○	●	○	●	○	○	●	○	○

LIKE TOO

G

MEHMET OĞUZ DU

FUNCTIONS IN THE COMPARTMENTS FOR MY C WHICH IS A FLYING OBJECT.

16 MY CUBE IS A MINIMALIST ONE AND DOES NOT MANY FURNITURE.
AS IT LIKES SWIMMING, IT SWIMS IN THE FOLDI SWIMMING POOL ON THE LOWER PLATFORM.

[redacted]

○	○	○	○	○	○	○	○	○	○
1	1	2	1	2	1	1	2	1	1
○	○	○	●	○	●	●	○	○	○
●	●	○	○	●	○	○	●	●	●
○	○	●	○	○	○	○	○	○	○

ASLI KILIÇ

TEL

17 MY CUBE FEEDS ON THE SOURCE OF LIGHT WHICH I HAVE DESIGNED TO EXIST EXACTLY IN THE MIDDLE OF THE SPHERE. MOREOVER, THE SPHERE HAS A LARGE GATE OPENING OUTDOORS.

S	○	○	○	○	○	○	○
23	1	1	2	1	2	2	1
U	○	○	○	○	○	○	●
A	●	●	●	●	●	●	○
S	○	○	○	○	○	○	○

[redacted]

YOUNG UNIVERSITY STUDENT. WHEN IT DY AND HAS SPARE TIME HE MOSTLY G AND ENJOYS WATCHING THE BEAUTIES T IT IS IN. DESIGNING ATTRACTS IT AND IT EFT TO GO OUT SINCE IT WORKS ON

31	2	2	2	2	2	2	1	2	2	3	1	2	1	1	2	2	2
U	●	○	●	○	○	●	●	●	○	●	○	●	○	○	●	●	●
A	○	●	○	●	●	○	○	○	●	○	●	○	●	●	○	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
24	1	2	1	2	2	1	1	1	2	1	2	1	2	2	1	1	1

SABA

HALİL ONUR ATAN

18 MY CUBE IS A DOES NOT ST LOVES DANCI OF THE PLANE HAS NO TIME SCULPTURES.

[redacted]

○	●	○	○	○	○	●	○	○	○	●	●	○	○	○
●	○	●	●	○	●	○	●	●	●	○	○	●	●	●
○	○	○	○	●	○	○	○	○	○	○	○	○	○	○
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
○	●	○	○	●	○	●	○	●	○	●	○	●	●	○

ARİF EMRE İMAMOĞLU

19 MY CUBE MOVES THROUGH TOUCHING THE INNER SURFACE OF ITS SPHERE. IT DOES ITS DAILY WORK BASED ON THE HOT AND COLD COLOURS WHICH FIX ITS MOVES. WHILE THE RED LINES TAKE IT TO ITS HOBBIES THE BLUE ONE DIRECT IT TO ITS VITAL FUNCTIONS. THE MAIN ACTIVITIES OF MY CUBE ARE EXCRETION, FEEDING, SLEEPING, DANCING AND ROLLING.

U	●	○	○
A	○	●	●
S	○	○	○
30	1	1	1
U	●	●	○

20 MY CUBE IS NAMED ZONETTA. I CALL IT ZO IN SHORT. ZO IS A FLYING CREATURE. IT SLEEPS STICKING ONTO ANY

[redacted]

●	
○	
2	
○	
○	

SAİME ALADAĞ

SURFACE ON THE WALLS OF THE SPHERE. IT HAS A BATH PASSING THROUGH SOFT TISSUES. THE PLACE IT RESTS, AT THE SAME TIME, IS THE PLACE OF EATING. IT FEEDS ITSELF IN THE COURSE OF PASSING FOOD OVER ONE OF ITS SURFACES.

21 ŞÜKÜFECAN IS MY CUBE WHICH CAN BOUNCE ON ALL ITS SURFACES AND LOVES LIGHT. IT FEEDS ON ENERGY CAPSULES. ITS MAIN SPACE IS WHERE IT FEEDS AND RESTS. IT CREATES AND DEVOURS THE ENERGY

A	○	○	●	○	●	●	○	●	○	●	○	●	○	●	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
25	1	1	2	1	2	2	1	2	1	2	1	2	1	2	1	1
U	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
A	●	●	○	●	○	○	○	●	●	○	●	○	●	●	●	○

NARIO

MODEL
(FINAL DESIGN)

SCALE OF EVALUATION*

TCP**

THE ELEMENTS OF BASIC DESIGN

POINT | LINE | SHAPE | DIRECTION | SIZE | SPACING | TEXTURE | MOVEMENT | LIGHT \SHADOW | COLOR

THE PRINCIPLES OF BASIC DESIGN

CONTRAST | HARMONY | REPETITION | HIERARCHY | DOMINANCE | BALANCE | UNITY

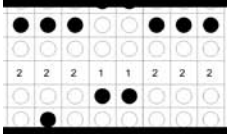
NO

SCE

AVE DESIGNED A NEW SPACE

U

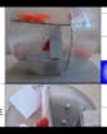
29 ŞUKUFE IS MY CUBE. I



İBRAHİM SAĞDIÇ

MADE A SPHERE-SHAPED DUBLEX SPACE. ON THE GROUND FLOOR ARE THE UNITS FOR MUSIC, DANCING AND ENTERTAINMENT ALONG WITH THE GUEST ROOMS. THE FIRST FLOOR HAS ITS BED, DIRECTION CHANGERS, AND FREE WANDERING SPACES.

30 OZMO IS TWO YEARS OLD. IT LOST ITS PARENTS IN A GRAVE METEOR CRASH ONLY TWO MONTHS AFTER ITS BIRTH AND WAS LEFT ALONE. IT LIVES IN THE SPACE BASE IT INHERITED. YOU ENTER ITS HOUSE THROUGH A VAST



A | S | 29 | U | A

S | 38 | U | A | S

HAVSE GÖKÇ YILDIZ

OPENING. IT WATCHES THE UNIVERSE ON THE DIGITAL SCREEN THAT IS ALSO USED FOR COMMUNICATION. EXCRETION IS POSSIBLE THROUGH THE CAPSULE THAT CLIMBS DOWN. THE BED IS FORMED BY THE BEAMS..

31 MY CUBE IS NOTHING DIFFERENT THAN HUMAN WITH ITS KITCHEN, ROOM, STAIRCASE, BEDROOM, BATHROOM, WC AND WASHBASIN. THE ENTRANCE IS AS COLOURFUL AS ITSELF.

FATMA

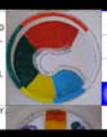
32 MY CUBE CLIMS THE STAIRS AND GLIDES TO ITS LIVING SPACE. WHEN HAPPY IT BOUNCES ON THE SOFT PLATFORM. IT USES THE SAME PLACE FOR SLEEPING AS WELL. THE GREEN PLATFORM FEEDS IT WHEN IT IS HUNGRY. IT DELIGHTS ITSELF ON THE BLUE GROUND WHEN IT IS GLOOMY.

SEVCAN KARADAĞ

32 | U | A | S | 24

ŞAHRAM LUTFULLAH

33 1. THE LIFE OF THE CUBE IS LIMITED. IT DOES NOT NEED FURNITURE DURING ITS SHORT LIFE. 2. THE CUBE IS FOND OF ENTERTAINMENT. AS THE WHITE REGION CARRIES ALL THE COLOURS, IT IS SPECIAL FOR THE CUBE. 3. THE MOVEMENTS OF THE CUBE ARE NOT LIMITED. IT GLIDES ON THE HYDRAULIC SYSTEM FOR EASE OF MOTION. 4. ALL THE SIX FACES OF THE CUBE ARE SENSITIVE. IT WORKS ON THE RED AND DEPOSITS ENERGY ON THE GREEN.



U | A | S | 36

34 DEFNE, A JOURNALIST, LIVES ALONE IN A SPHERE IN ITALY SHE IS USUALLY OUT. USUALLY FOLLOWS THE ENTIRE

U

ESS ON THE BIG SCREEN. SHE USUALLY HAS A GUEST. R SPHERE HOUSE IS SO WELL-LIT AND DEFNE ATCHES OUTSIDE FROM HERE. HER GREAT BED IS THE ACE TO END THE DAY.

A | S | 24 | U | A

AYŞUN UŞLU GEN

35

S IS AN ORDINARY HARD-WORKING CUBE WHICH DOES L AT HOME. WAKING UP IN THE MORNING IT GENERALLY SSES TO THE BATHROOM NEXT TO ITS BED. TO GET ESSED IT GOES TO THE CLOTHING PART LOCATED IN

[redacted]

NO.	SCENARIO	MODEL (FINAL DESIGN)	SCALE OF EVALUATION* TCP**	THE ELEMENTS OF BASIC DESIGN: POINT	LINE	SHAPE	DIRECTION	SIZE	SPACING	TEXTURE	MOVEMENT	LIGHT \SHADOW	COLOR	THE PRINCIPLES OF BASIC DESIGN: CONTRAST	HARMONY	REPETITION	HIERARCHY	DOMINANCE	BALANCE	UNITY		
43	LILI IS A HAIRDRESSER AND HAS A LIVELY CHARACTER. WHEN SHE ARRIVES HOME, SHE RESTS ON THE SPRING		U	○	●	○	●	○	○	○	○	●	○	●	○	●	○	○	○	○		
	[redacted]																					
	IN THE ENTRANCE. HER RED STUFF IS INDESPENSIBLE FOR HER, HERE IN THIS CLOSED UNIT SHE EATS AND GOING UP TO THE FLOWER LIKE SECTION SHE REACHES HER BED. LILI IS FOND OF ACCESSORIES FOR HERSELF AND FOR HER HOME.		A	●	○	●	○	●	●	●	●	○	●	○	●	○	●	●	●	●	ESRA CANDE COTU	
			S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
			29	2	1	2	1	2	2	2	2	1	2	1	2	1	2	2	2	2		
44	MY CUBE LIVES ON ONLY ONE MEAL. WITH ITS COLOR, ORANGE, IT IS JOYOUS. THE COLORFUL CIRCLES ON THE WALL REFLECT THE LIGHT. IT DANCES, GLIDES, HOPS, HAS A BATH IN SHOWER POND. HITTING THE WALL		U	○	○	○	○	○	○	○	○	●	○	○	○	●	●	○	○	○		
			A	●	●	○	●	○	○	●	●	○	○	●	●	○	○	○	●	●	●	EZGİ
	[redacted]																					
	DOWNSTAIRS IT RELEASES THE FOOD CAPSULES. IT RELEASES THE FOOD CAPSULES. IT CATCHES THEM ONE BY ONE. HOPPING ON THE TRAMPOLINE IT GOES INTO ITS COTTON BED AND TAKES A SOUND SLEEP...		S	○	○	●	○	●	●	○	○	○	●	○	○	○	○	○	○	○	SEVDA DÖNM	
			35	2	2	3	2	3	3	2	2	1	3	2	2	1	1	2	2	2		
45	MY CUBE ENTERS THE TOP SPACE OF THE SPHERE THROUGH AN ORANGE DOOR. IT HAS FUN THERE. AS IT HOPS, THE PYRAMID SHAPED MUSIC BOX STARTS WORKING. GLIDING ON THE SPIRAL SLIDE HE PASSES TO THE SPACE DOWNSTAIRS. IT SHEERS AS IT CRASHES A WALL. IT GOES UP WHEN IT IS TIME TO SLEEP. WHEN IT		U	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	●	○	○		
			A	●	○	○	○	○	○	●	○	●	○	●	●	○	●	○	●	●	TUNÇDEMİR	
			S	○	●	●	●	●	●	○	●	○	●	○	○	○	○	○	○	○		
	[redacted]																					
	HITS THE SOFT BED IT STOPS. IT IS FED WITH THE FOOD COMING THROUGH THE PIPE..		39	2	3	3	3	3	3	1	3	2	3	2	2	1	2	1	2	2	ŞEYDA	
46	IN THE MORNING PIRTIK IS HUNGRY AND ANGRY WHEN HE WAKES UP. NORMALLY IT MOVES GLIDING BUT WHEN HE IS ANGRY HE HOPS. HE PLAYS GAMES IN ITS PLAYROOM SHAPED AS A MAZE. IT USES THE EXCRETION AND CLEANING PART DESIGNED IN THE SHAPE OF A TUNNEL. HE GOES TO WORK IN THE EVENINGS. HE IS THE BOSS OF THE "RIGHT ANGLES TV". HE HAS A SHOW NAMED "OUR LIFE IS A CORNER". HE HAD HIS HOUSE BUILT AS A SP		U	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		4
			A	●	●	○	●	○	○	○	○	●	○	●	○	●	●	○	●	●	MERVE ÖZMEN	
			S	○	○	●	○	●	●	●	●	○	●	○	●	○	○	●	○	○		
			42	2	2	3	2	3	3	3	3	2	2	2	3	2	2	3	2	2		
	[redacted]																					
7	DAILY LIFE IN ITS SPHERE. USUALLY IT REACHES WHAT IT NEEDS GOING THROUGH THE SPACES. MY CUBE IS UNABLE TO MAKE DISTINCT COLORS. THAT'S WHY IT FEELS BETTER WITH WHITE.		U	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		4
			A	●	○	○	○	○	○	●	○	○	○	●	○	●	●	○	●	●		
			S	○	●	●	●	●	●	○	●	●	●	○	●	○	○	●	○	○		
			44	2	3	3	3	3	3	2	3	3	3	2	2	2	2	3	2	2		
8	I WANTED TO DESIGN A LARGE SPACE FOR THE CUBE TO MOVE FREELY INSIDE THE SPHERE. I USED PLATFORMS		U	●	○	○	○	○	○	○	○	●	○	○	○	●	●	○	○	○	AZİ	4
	[redacted]																					
	FOR SPATIAL PARTS. I PUT THEM TOGETHER WITH VARIOUS BARS AND SIMILAR ELEMENTS. AT THIS POINT I PUT MYSELF IN PLACE OF THE CUBE AND TRIED TO DESIGN THE SPACES AND PASSAGES AMONG THEM CONVENIENTLY.		A	○	●	○	●	○	○	●	●	○	●	●	●	○	○	●	●	●		
			S	○	○	●	○	●	●	○	○	○	○	○	○	○	○	○	○	○		
			33	1	2	3	2	3	3	2	2	1	2	2	2	1	1	2	2	2		
9	THE CUBE LIKES REALISING ALL THE ACTIVITIES AND DAILY NEEDS INSIDE THE SPACE. MY CUBE USED TO BE A STAR AND IT IS EXPERIENCING THE PAIN OF BEING FORGOTTEN ALONE IN ITS SPHERE. EACH SPACE WAS		U	●	○	○	○	○	○	●	●	●	○	○	○	○	●	●	○	○	○		49
			A	○	●	○	●	●	●	○	○	○	●	●	●	○	○	●	●	●	ZONDUZ	

Each criterion in these matrices was evaluated using the scale; Successful (3 P), Fair / Average (2 P) and Unsuccessful / Fail (1 P). The cumulative points (TCP) were calculated via the addition of the points acquired from each criterion. In this evaluation statistical techniques were used and triple Lickert type scale was used for grading. According to the cumulative points (TCP) the following grading scheme occurred: 17• TCP • 28,3 unsuccessful, 28,3< TCP • 39,6 fair or average, 39,6< TCP • 51 successful.

The success of the products was determined with reference to the points they received from this evaluation for each criterion. The average points is *31,73(average)*. The lowest point belongs to the product **12** (*19P*), while the highest point belongs to the products **2** and **47** (*44P*). Thus, % 14 of the students were graded successful, % 66 average and % 20 unsuccessful. Moreover the final products were graded with reference to the grading of cumulative points (Table 6).

TCP	GRADE	TCP	GRADE
17• TCP • 21.25	50-54	34.00< TCP • 38.25	70-74
21.25< TCP • 25.50	55-59	38.25< TCP • 42.50	75-79
25.50< TCP • 29.75	60-64	42.50< TCP • 46.75	80-84
29.75< TCP • 34.00	65-69	46.75< TCP • 51.00	85-100

Table 6. Evaluation Grades.

According to the cumulative (TCP) points received by the students from basic design elements the following values were obtained; 10• TCP• 16,7 unsuccessful, 16,7<TCP• 23,4 average or fair, 23,4<TCP • 30 successful. The average cumulative points received from basic design elements is *19,01(average*). Hence, % 18 of the students were graded successful, 52 % average and % 30 unsuccessful with reference to basic design elements. In view of basic design elements the lowest point belongs to the product **12** (*11P*) while the highest point belongs to the product **47** (*28P*).

According to the average (AP) points received by the students from basic design elements the following values were obtained; 1• AP • 1,67 unsuccessful, 1,67<AP• 2,34 average or fair, 2,34<AP• 3 successful. The most successful basic design elements is *size (2,34 AP)*while the most unsuccessful is *light-shadow(1,41 AP)*.

According to the cumulative (TCP) points received by the students from basic design principles the following values were obtained; 7• TCP• 11.7 unsuccessful, 11.7<TCP• 16.4 average or fair, 16.4< TCP• 21 successful. The average cumulative points received from basic design principles is *12,71(average*). Thus, % 5 of the students were graded successful, % 68 average and % 27 unsuccessful with reference to basic design principles. In view of basic design principles the lowest point belongs to the product 1**2** (*8P*) while the highest point belongs to the product **2** (*19P*).

According to the average (AP) points received by the students from basic design principles the following values were obtained; 1• AP• 1,67 unsuccessful, 1,67<AP• 2,34 average or fair, 2,34<AP• 3 successful. The most successful basic design principle is *harmony (2,20 AP)*while the most unsuccessful is *hierarchy(1,30 AP).*

When basic design elements *(1,90AP)* and principles *(1,82AP)* were compared it was observed that the students were more successful in the first section.

Furthermore, it was agreed that the scenarios existing in the matrices are useful for showing the integrity of thought and how abstract ideas are verbally expressed. It ws observed that the products which had good scenarios were also good designs.

Result and Conclusion

Basic design education is a fundamental step for institutions offering design education. In this step the main goal is revealing or developing the skills of the students. In this view the applications carried out by the students gain importance. The application carried out within the scope of our study might be considered as an important transitory step towards spatial design. The designs made by the students using the scenarios they have built demonstrate the unity and maturity in the transition from mental to applied processes. The design problem initially created a negative effect on the students. This condition was overcome with the instructions and studio sharing. The students were asked to comment on their final product and the process through an interview while submitting their final work and these data were assessed within this study. During the interviews the students expressed that they found it entertaining

to make a design using such an object and enjoyed the final product. This process of design problem solving has been an important step in letting the students know that designing is an exciting and enjoyable process. However, it is obvious that it would be more motivating for the students if such activities were also made 3 or 4 times during the semester since they can put what they learned into scenarios and design education could be monitored during the process.

References

Atalayer,F., (1983), *Temel Tasar,* S.Ü.Müh.Mim.Fak. Ders Notu, Konya, Türkiye.

Çınar,K.,(1999),*Temel Tasar*,S.Ü.Müh.Mim.Fak.Ders Notu, Konya, Türkiye.

Divanlıo lu,D.,(1997), *Tasar'ın Ö e ve lkeleri:Temel Tasar,* Birsen Yayınevi, •stanbul, Türkiye.

Güngör,•.H., (1972), *Temel Tasar*, Çeltüt Kol.• ti.,•stanbul, Türkiye.

Gürer, L., (1990), *Temel Tasarım*, •TÜ Mat., •stanbul, Türkiye.

Itten, S., (1970), Mein Workus Am Bauhaus,(akt.Gürer, L., Temel Dizaynda Görsel Algı), TÜ Mat., stanbul, Türkiye.

Hodgen,L.F.,(1965),*Basic Design*,TeksasÜ.Mim.Ok., Teksas, USA.