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Research Article

The Architectural Project Experience Process for the Education Center of Gifted and Talented Children[1]

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Abstract

The instruction model for the children with different intelligence and talents should also be different. Therefore, after identifying the personal development line and the quality, the instruction model should be changed according to the development line executed by the children. Within the framework of these opinions, "gifted and talented children's educational center architectural project" was studied as 6th term Project at Selçuk University Faculty of Architecture Department of Architecture, ADOBE / Toprak Architectural Design Studio in 2015-2016 Spring Semester. The education center was formed as open, semi-open and closed spaces involving educational units, socio-cultural spaces, accommodation units, managerial and service units and the recreation arrangements for educational and relaxation purposes. Considering children as the basic users of the center, the project was provided to have sustainable ecologic and human-friendly spaces within the scope of today's trends. The projects designed at the end of the education period are the products of architectural studio experience having the quality of being a student term project. This study has the purpose of being a clear invitation to the scientific collaborative studies that can be performed on this subject and sharing this architectural experience period with the science world.

Keywords

gifted and talented children, education center, architecture, gifted and talented children's training center building, children

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Introduction

Architecture profession is the art of space designing, analyzing and producing, according to the needs. Architectural studios are the environments where students are taught the space design education by experiencing with an executive leadership (Ciravoğlu, 2001). The studios aim to raise the level of awareness, understanding and capability of the students. They are intensive experience places where the students can demonstrate their creativity by making, deploying, trying, and designing (Koester, 2006In the architectural design studios, the students study on the selected plot on the basis of the determined problem, examine the building needs program, the land and the environmental data, they discuss the psychological, sociological technological, aesthetic, ecological, economic conditions, needs, and possibilities.

The ability to analyze, construct spatial-formal relations (Şahin, 2013), making decisions, explaining the thoughts by three-dimensional drawing, presenting the problems, solving and synthesizing are also gained in architectural studios (İnceoğlu, 1994). This training also reveals intellectual individuals who are equipped with design formation, asking questions, understanding human and social relations, prone to group work and whose awareness is increased.

At Selçuk University Faculty of Architecture Department of Architecture, architectural studio courses are opened every semester starting from the first semester. Towards graduation, starting from the first studio course, each upper-level studio is being taught by a curriculum that is increasing in scope and content (Yilmaz and Ulusoy, 2016).

The "ADOBE / Toprak Architectural Design Studio", one of the studio groups of the Architectural Department of Selçuk University Faculty of Architecture, provides training on sustainable architectural project design. It is aimed that the students in the studio learn how to approach a selected topic, a drawn scenario or a problem like an architect and finally produce a solution with a project design. Students learn how to look from the sustainable life philosophy and sustainable architectural design aspects in the architectural design process. It is foreseen that the students should do group work in order to solve the problem in a correct and detailed way in the studio.

It has been found out that there is not a full-time and full-fledged gifted and talented child education center in Turkey when design problem is determined in ADOBE/Toprak Architectural Design Studio. Gifted and talented human resources, which are the human treasury of our country, must be trained and brought to the benefit of the country. The cultivation of gifted and talented children for the benefit of the country depends on the establishment and dissemination of special needs education institutions. To be able to achieve this, it is necessary that the curriculums of special needs education institutions and the training centers scenarios

should be drawn up and implemented in the form of projects (Al-Zoubi et al., 2015; Korkmaz, 2014).

Consequently, in the spring term of 2015-2016, the studio assigned the students a design problem called "Gifted and Talented Children's Educational Center Architectural Project". This article describes the adventure of architectural design which ADOBE/Toprak Architectural Design Studio students experienced a different educational process to sort out the "gifted and talented children's education center" issue. Scope is the architectural building programming and studies conducted with gifted and talented students and the result is information about architectural projects which are the products. The first objective of the study is to carry out an architectural design education experiment with the projects that are carried out as student semester architectural project by making necessary research, analysis and synthesis on selected land in Adobe Studio. The second objective of the study is to share the results of "the architectural building needs program, selection of the land and architectural project design of Turkey gifted and talented children education center" with interested institutions, educators, educational psychologists, architects and related researchers. To start a collective study and draw attention to the issue of gifted and talented children's center and curriculum is the third important goal of the study.

As a result, it has been understood that gifted and talented children should be educated with specialized or accelerated trainings according to their interests with push in model. It was understood that different curricula should be included for this different education, and each student group presented his/her own educational concept and architectural concept in order to be able to create his/her own different building needs program. The project groups have completed architectural projects in the framework of their own educational insights and architectural concepts and have developed examples of architectural projects related to the subject. The common side of the projects is that the user is a child and their work should be done in an ecological, child friendly architectural understanding.

Method

The study began by examining the literature and related websites. The trainings given by the existing associations, centers and institutes on this subject gave an idea about the type of education system that the workshop could choose at the beginning of the study (Fischerand and Müller, 2014). Besides, gifted child education forms were searched out and with an empathic approach, this education was reflected in the architectural building program.

- BİLSEM (Science and Art Centers) in Konya were examined and studies were carried out with children.
- The subject was discussed with BİLSEM teachers.

- Domestic and overseas samples of selected child villages were studied and discussed in class.
- The Turkish examples of the child village model were examined on site.
- Pediatric physiology and psychology and their effects on school structures were examined.
- Particularly ecological, sustainable education systems have been studied.
- Social center and accommodation facilities were examined.
- Sustainable buildings and eco villages for architectural planning have been examined.
- Architecture by location samples were examined.
- Traditional and modern construction techniques were studied.
- Healthy construction materials have been examined.
- The land was selected, analyzed on site and environmental studies were conducted.
- The stages of beginning the architectural design, improving it, and detailing were carried out.
- The project has been finalized with completion and presentation stages.

The Process of Introduction to Architectural Design

Research Process

In the process starting with the topic selection and distribution to the students; identification of groups, programming the architectural construction, sustainable architectural studies, field trips for the land examination, environmental analysis, concept approaches, design development, detail production, project delivery stages have been executed (Table 1).

Table 1.

Weekly Schedule

Number of the weeks a Objectives	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15-Final
*Distribution of the topic to the students; *Identification of groups,															
*Education center architectural building needs program examination															
*Sustainable Architecture Research															
*Field trips, Land seeing															
*Environmental Analysis and Concept Approaches															
*Design development															
*Detail development															
*Project Evaluation															
						1.				2.				3.	Delivery

Drawing the Scenario of the Education Model

In order to be able to program the architectural building, it was necessary to decide what could be the educational model of a school consisting only of gifted and talented children. Therefore, BİLSEM negotiations, literature, web researches, studies in this field in our country, and the findings of the scientific world have illuminated the study.

It has been acknowledged that each child has a different personality and that development will occur at different ages, with different abilities, at different stages. Gifted students in the Marland Report (1972); are defined as *"individuals who need differentiated education programs and/or special needs education, other than those offered by the standard school program for their ability to develop and reintegrate them into the society"*. Learning is a lifelong process. A good teaching involves how the student will learn and how the student will manage his or her own learning. The chosen strategy, method and technique should be in a form that will make the student active and reach the goal (Kontaş, 2012; Santeusanio, 1974).

Gifted and talented children can be trained by different methods. While this is in the fields of education and educational psychology, ADOBE/Toprak Architectural Design Studio groups have had to make a choice to create the project.

Following the research, it is predicted that the education program will be able to work with enrichment, acceleration, and grouping.

Enrichment: Conducting a program that avoids repetition, offers exploration, curiosity, interest, ability to respond to different materials and different learning areas

Acceleration: It can be applied in many ways, such as starting the school at an earlier age, skipping the class, skipping to the advanced classes, merging some classes, completion the program earlier, taking courses and participating in the seminars. With this practice, which prevents the child from being bored, the children may be deprived of adequate social, emotional, physical and motor maturity, but some of their lessons with their peers may continue, so the problem of the necessity to communicate with their peers will diminish.

Grouping: Some applications such as grouping the gifted students in their own talents and interests, grouping them in resource centers, special seminars, summer courses, special workshops in various study centers (such as museums, universities, science laboratories and industry) can be made (Lawrence-Brown, 2004). Grouping may be useful in achieving significant success in developing children's abilities and developing self-concepts (web 2: MEB, 2009).

Thus, the school's framework was identified as a full-time school for gifted and talented children. It was thought that a private school and the class of every age group could be located in large accommodation units for a certain number of gifted and talented children. Gifted students can be educated with other gifted children

through an accelerated or enriched curriculum that is completely different from the standard program.

Starting the school at an earlier age, skipping to the advanced classes, completing the program earlier than planned. Gifted students who are not required to graduate from the program at an early age can be provided with additional activity groups and appropriate fieldwork and research opportunities so that they can be educated together with their peers.

Group or independent working opportunities can be given. Specialized visiting professor-scientist lecturing enriches the education. Guidance counselor should be provided (Levent, 2012).

Gifted and Talented Education Institutions in Turkey

In Turkey, educational institutions are implementing an education system appropriate to the average intelligence level children. Starting from the Ottoman Enderun Schools, current education institutions such as Anatolian High Schools, Science High Schools, Anatolian Fine Arts High Schools, Science and Art Centers, The Scientific and Technological Research Council of Turkey (TUBITAK) and Turkish Gifted and Talented Children's Education Foundation (TÜZDEV) provide support training to families and educators about gifted and talented children's education.

New Horizons College and Turkish Educational Foundation İnanç Türkeş Private High School continues education as Anatolian high schools without curriculums prepared specifically for the gifted and talented kids and offers different instructions to gifted and talented children with activities. Beyazit Elementary School, on the other hand, has been able to teach gifted and talented children together with normal intelligence level children using differentiated instruction through enrichment method. Gifted Education Programs (ÜYEP) is a program established by Anadolu University and TUBITAK with the support of Anadolu University Gifted Education Department and still continues the studies (Web 1, Baykoç).

These institutions, as urban educational institutions, are unable to allow children to fully establish communication with nature. BILSEM (Science and Art Centers) are educational institutions where children spend out of school time. BİLSEM, apart from being a stimulating institution, it is becoming too tiring for children by bringing too much burden as well as school education compared to their peers.

Activities Made at BILSEM

The examination of Ministry of National Education Konya BİLSEM has been conducted with the discussions with the educators and taking the opinions of the students. When the study conditions of the BİLSEM from the teachers and resources perspectives were examined, it was observed that this education was very

useful for the students. However, it was also observed that BİLSEM's education was a second school on the same day and therefore the system is thought to be tiring with a low-level interest.

On March 8, 2016, 3rd grade literature class students at BİLSEM responded to the question: "*How is your classroom and school in your dreams? Explain by writing and drawing.*" (Figure 1-2).

A BİLSEM student described a class: "*walls we are allowed to paint, jokes we can tell although we cannot write, painted with a light color, a literature t-shirt or aprons we designed, kittens or puppies in every class.*"

Yavuz Selim Kara wanted "*A classroom with a curved table and students sitting around, a colorful panel, a three-shelf bookcase, and a sliding door*".

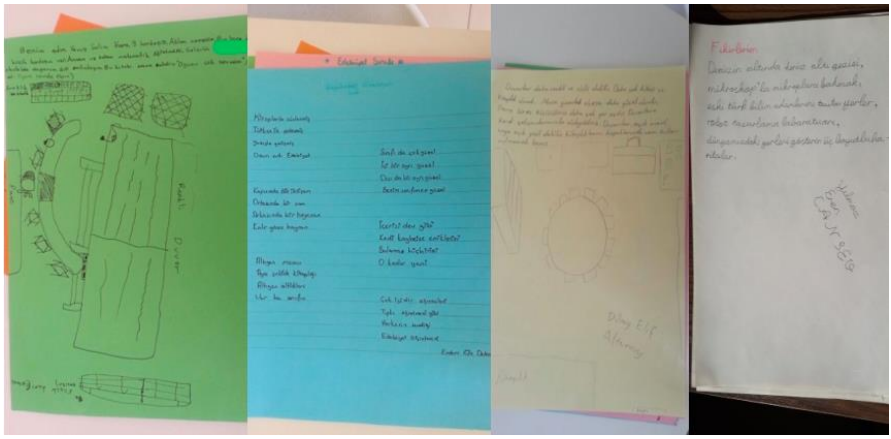

Figure 1.

The written and drawn responses of Selcuklu Bilsem students to the question "What kind of class and school would you want?"

In his poem Erdem Efe Delen told us that spaces should be large and comfortable.

"Adorned with books, jollified with Turkish, developed with writing, It is called Literature
Even splendor at the door, a life in the middle, an excitement on the back,
Hexagon Table, Library, and cushions, in the same way in this class
Inside is like a giant, even If a cat loses its babies, cannot find them, that enormous class…"

In the literature class, İlayda Sinem Havan " imagined a blue library information tree with green inside, that can write books and present them, on which books can be placed on shelves". She was seeking for originality.

Mehmet Ziya asked the spaces to be equipped with differently designed items. He said "colorful puffy seats, walls are colorful like a rainbow, furniture design is different, so the room is nice. A clock that is similar to an hourglass should be given as present to the class". Fatih Kayra Ankaralı described the school as follows. "*The place where you can go down to the sea by submarine,*

one can examine the sky with a telescope, and you can chat and share something". He wanted social facilities as well as research opportunities.

Figure 2.

Selcuklu BILSEM students' drawings about their school dreams

Aslı Baloğlu wanted a school designed like a research center filled with activities in the natural environment. She said; "*There must be an island, there must be rivers, trees and all kinds of animals on the island, there must be special places to observe, there must be a submarine to inspect the fishes, it should also include space centers, libraries, laboratories, field trips, ideas corner.*"

Another student wanted a school with "*Review pool, microscope workshop, animation workshop, feeding animals with virtual reality, big screen computer, telescope balcony*".

Same other students wanted "*classes where the old Turkish scientist are introduced, robot design, three dimensional maps* (Yılmaz Eren Cansev)", as well as "*Lawns, gardens, flowers, tree houses, animals, zoo, extinct animals* (Beren Karadeniz)", "*Natural beauties, forest, agricultural land, water treatment plant"* (Zeynep Zümra Akalan)"," *obtaining electricity from the wind roses, solar energy panels and giving each child plants to vaccinate the nature lover, hammock as a bed*" (Mustafa Said Terzioğlu) ".

Architectural Building Needs Programming Phase

For building programming, BİLSEM students' dreams, literature and sample training centers (Gourley, T. J.; And Others, 1975; Hollingsworth, 1996) were explored and the elements that should be considered in gifted and talented children's education were examined. These results were used in terms of architecture in the building needs programming phase (Table 2). In this way, gifted and talented children's education center architecture building needs program has been obtained.

Table 2.

The Concepts of Differentiated Instruction Forms in Gifted and Talented Kids' Education for Making an Architectural Building Needs Program

Factors to be considered in the education of the students according to the literature:	**The lessons learned in terms of architectural design**	**Reflected results to architectural building needs program**
Every gifted and talented child should receive special education (Ataman, 2012) (Web 4).	For their education, there is a need for a differentiated instruction center other than standard ones.	Gifted and talented children's education center is a must.
As intelligence and educational level can reach very high levels, their physical and emotional age levels should be considered.	For this reason, two groups of students, aged 3-6 years and 7-12 years, were selected as users.	Education buildings: Kindergarten and administration Primary school and administration Infirmary (should be included.)
As a result of the tests and guidance services carried out while the regular education system is in progress, the education of the students whose skills are taken notice can be concentrated in the related fields (Web 5).	All skills should be trained as workshops and laboratories in the center.	Workshop - laboratory application areas: * Science - mathematics (science, physics, chemistry, biology, mathematics, Astronomy) * Information and technology (computer, robot software, technology and design, * Social sciences (literature, turkish language, drama, social studies, life science, history, geography, English, Turkish and other foreign languages) * Art and design (music, painting, sculpture, cartoon, ebru, origami, mind games, chess) * Sports science - Individual games (athletics, swimming, gymnastics, cycling, skating, etc.) -Team games (basketball, volleyball, handball, etc.)
* Students should be trained and followed in every sense (Tirri, K. and Pehkonen, L. 2002) * Students' education should be supported by their families.	The moral values that must be taught to each child, and the relationship with their teacher and friends should be arranged, and all the information about the life should be taught.	* Guidance system (Levent, 2012) * Values education (Kurnaz, 2012) * Sustainable life vision - ecology education should be taught.
* The educational environment should be school and the social environment of peers should not break away. * The education model and spaces should be entertaining (Web 3; Tarhan, 2016).	There must be education, sociocultural and recreation areas that can meet all physical, social and psychological needs of different age groups.	*Different science fields, classes and laboratories, * Exhibition, library, cafe, cafeteria, * Multi-purpose social center (web 6) *Playgrounds and sports grounds for different age groups *Natural recreation areas to explore freely and to explore and appropriate environmental settlements (such as the nearby villagers)

Every child can show different development stages. With differentiated instruction and training strategies, methods and techniques, groups or independent learning studies can be done in a way that will make the student active and reach the target (Lawrence-Brown, 2004). There may be skippings between classes and science fields.	The center should be developed in every respects.	The spaces should be flexible in terms of dimensions, facilities and furnishings etc. features.
* They can learn fast and deeply. *Research, exploration, investigation and complex and abstract thinking should be emphasized. The development of high-level thinking skills such as analysis, synthesis, and evaluation should be studied.	* Training spaces should be flexible and have many facilities. * Out-of-school fields should be identified.	* Must have education fields in nature, *For the field trips, the institution should have transportation facilities, parking lots, so the students can travel safely (web 7).
To provide personal development and self-confidence, and to get rid of hyperactivity and internal pressures, they should take responsibility (Ataman, 2012).	Responsibility areas should be established. Social and individual responsibilities can be obtained from nature, animals, plants.	Nature (animal and plant care) spaces should be established.
They learn through activities. They do plenty of testing.	They should be able to do different activities. Variable activity fields should be established.	Variable events and spaces can be created such as publishing a newspaper and magazine, writing a project about the book he/she reads, observing the nature (web 8)
The education they receive must give experiences they should be obtained in their childhood that is based on all learning (Ataman, 2012).	They should have a disciplined and equipped educational institution as well as natural environments where they can live their childhood and develop in terms of physical, psychological and values.	Closed, open and semi-open areas (classes) and recreational areas for entertaining, resting and experiencing should be established.
The process, the educators and the learning environment must be differentiated to ensure that the curriculum goes beyond its boundaries.	Scientists and instructors from different disciplines should be invited around the world. Opportunities such as benefiting from the university environment should be created for those who can achieve high school and above education level at kindergarten level.	Accommodation should be considered for visiting scientists. The location of the building should be close to the university campuses or transportation facilities should be considered
Some of the children may be orphaned or some may want to stay in the dorm.	Children's village-campus model can be selected.	The campus should provide accommodation for students and educators.
	Because the educational institution is a kind of business	It should include business administration, security, shelter, technical units, service-personnel department.

Gifted and talented children education center has been decided to be established as a village campus model close to nature because of the needs determined in Table 2 and the children's, who are educated at BİLSEM, willing to be educated and close to the nature. Thus, an architectural building needs program for the gifted and

talented children's education village, which is composed of entrance, education units, living spaces units, infirmary, guest house, socio cultural units, business administration, technical units, open and semi open educational spaces, shelter, recreation areas, and parking lots, has been created (Table 3).

Table 3.
Gifted and Talented Children's Education Center Architectural Building Needs Program Tables Produced in ADOBE / Toprak Design Studio and Used by Architecture Students

SPACE NAME AND PROPERTIES	Piece	Area (Sqm)
1-ENTERANCE		
Control Room	1	8
Waiting lounge (connected with outside+waiting outside)	1	16
Driver's room	1	8
Security room	1	8
WC (gents-ladies/accessible toilets)	1	8
2-EDUCATION VILLAGE BUSINESS ADMINISTRATION		
Enterance (Information desk, waiting lounge etc)	1	36
Principal's office (+meeting facilities)	1	32
Vice Principal's office	2	16
Secretary (serve for principal and vice principal)	1	16
Meeting hall	1	24
Coordinator	1	24
Administrative office	1	16
Accountancy	1	16
Meeting hall (to meet with visitors)	2	12
The student counselling office	2	16
Teachers hall	2	16
Sociologist room	2	16
Child development specialist room	2	16
Dorm monitor room (bedroom-bathroom-office)	1	16
Telephone operator	1	8
Archive	1	16

Tea room	1	8
WC for gents-ladies/accessible toilets	1	24
3-EDUCATION UNIT		
Education Unit Administration		
Principal office (+meeting facilities)	1	32
Vice principal's office	2	16
Meeting hall	1	32
Teachers hall	1	32
Couonselling class (min for 20 students)	1	32
Waiting lounge	1	16
Office	2	16
Tea room	1	8
WC for gents-ladies/accessible toilets	1	20
Cafeteria (with kitchen and serving counter)	1	120
Store	1	12
Cafeteria-WC group	1	40
Personnel room for gents and ladies	2	32
Cleaning store	1	8
Archive	1	12
SCIENCE		
Math lab (max 4 persons)	3	24
Algebra-geometry labs	3	24
Store (conntected with math lab)	1	8
Science and tech lab (max 4 persons)	3	24
Store (connected with science and tech lab)	1	8
Physics lab (max 4 persons)	3	24
Store (connected with physics lab)	1	8
Chemistry lab (max 4 persons)	3	24
Store (connected with chemistry lab)	1	8
Biology lab (max 4 persons)	3	24
Store (connected with Biology Lab)	1	8
Astronomy lab (max 4 persons)	3	24

Store (connected with astronomy lab)	1	8
SOCIAL SCIENCES		
Turkish lab (max 4 persons)	3	24
Creative writing lab	3	24
Store (connected with Turkish lab)	1	8
Literature lab (max 4 persons)	3	24
Store (connected with literature lab)	1	8
Turkish language lab (max 4 persons)	3	24
Store (connected with Turkish language lab)	1	8
Drama lab (max 4 persons)	3	24
Store (connected with drama lab)	1	8
Social sciences lab	3	24
Store (connected with social sciences lab)	1	8
History lab (max 4 persons)	3	24
Store (connected with history lab)	1	8
Geography lab (max 4 persons)	3	24
Store (connected with geography lab)	1	8
English lab (max 4 persons)	10	24
Store (connected with English lab)	2	8
Life sciencel (max 4 persons)	3	24
Store (connected with life science lab)	1	8
INFORMATION AND TECHNOLOGY (IT)		
I.T. lab	2	32
Store (connected with IT lab)	1	8
Robotic and software lab (max 4 persons)	3	16x6
Store (connected with robotic and software lab)	1	8
Technology and design lab (max 4 persons)	3	24
Store (connected with technology - design lab)	1	8
ART		
Music lab (max 4 persons)	10	24
Store (connected with music lab)	3	8
Art studio (max 4 persons)	10	24

Store (connected with art studio)	3	8
Sculpture studio (max 4 persons)	6	24
Store (connected with sculpture studio)	3	8
Ceramic studio (max 4 persons)	3	48
Store (connected with ceramic studio)	3	8
Caricature studio (max 4 persons)	3	24
Store (connected with caricature studio)	1	8
Ebru studio (max 4 persons)	3	24
Store (connected with ebru studio)	1	8
Origami studio (max 4 persons)	3	24
Store (connected with origami lab)	1	8
Mind games lab (max 4 persons)	3	24
Store (connected with mind games lab)	1	8
Ballet and dance studio	2	64
Scouting club	1	24
Store (connected with scouting club)	1	8
SPORTS HALLS		
Entrance	1	
Personnel room	1	16
Basketball-volleyball-handball hall	1	450
Fitness center	1	48
Swimming pool (will be arranged according to age groups)	1	250
Gym hall	1	48
Store	1	16
Dressing room (with WC and shower facility) (male-female students)	2	48
KINDERGARTEN		
Teachers hall	2	24
Playground	2	32
Nap room	1	32
WC for gents-ladies/accessible toilets (students)	1	20
WC for gents-ladies/accessible toilets (teachers)	1	20

Store	1	32
4- LIVING AREAS **Kids houses (will be arranged according to age groups)**		
Bedroom (2 persons)	3	20
Bathroom (Closet toilet)	1	8
WC	1	4
Mom's room (bed+shower)	1	16
Hall	1	24
Kitchen	1	12
Small store	1	8
Playground	1	12
Hobby room	1	12
Laundry	1	16
5-GUESTHOUSE		
Entrance- waiting lounge	1	120
Office	1	16
Room (for 2, bathroom-WC)	20	24
Room service	1	24
WC for gents-ladies/accessible toilets	1	36
Cafeteria	1	48
Kitchen-store	1	32
Personnel dressing room (gents-ladies)	2	24
Restaurant	1	60
Kitchen-store	1	32
Service entry and weighing	1	24
Laundry and ironing room	1	36
Guest house deposit	1	48
6-SOCIOCULTURAL UNITS		
LIBRARY		
Reading-studying room (3 sqm per person)	1	180
Servant-photocopy room	1	16
Study room (4 sqm per person)	7	16
Computer lab	1	32

Friendship room	2	24
Playground	2	48
Library store	1	48
ACTIVITY ROOM		
Entrance-with exhibition facility	1	100
Multipurpose hall	1	200
Foyer (connected with the entrance, with serving facility)	1	80
Backstage (gents-ladies, connected with the stage)	2	32
Projection room	1	8
Store	1	48
Cafeteria	1	200
Kitchen-serving counter	1	50
Cafeteria store	1	8
WC for gents-ladies- accessible toilets	1	32
Hairdresser	2	24
Stationary	1	32
7-INFIRMARY		
Entrance	1	24
Waiting lounge	1	16
Doctor-examination room	1	32
Sickroom (bed-shower-WC)	2	16
Nurse room	1	12
Isolation room-hobby room	1	32
WC for gents-ladies/accessible toilets	1	32
Tea room-kitchen	1	8
Store	1	8
8-SERVICE UNIT OF THE BUSINESS		
Goods acceptance entrance and weight unit	1	16
Food and beverage store	1	60
Attire store	1	32
Cleaning room	1	16
Technician office	2	16
Tech workstation	2	56

Air conditioning center	1	100
Hydrophor-water tank	1	24
Generator	2	24
Stores	3	80
Personnel Department		
Dining hall	1	56
Kitchen	1	32
Personnel dressing room (with WC-shower, for gents and ladies)	2	32
Store	1	48
Shelter (1 sqm per person) (with shower-WC,built-in kitchen and escape from outside)		
9-OPEN-SEMI OPEN EDUCATION SPACES		
RECREATION AREAS (Recreation + entertainment-playgrounds + outdoor sports and outdoor training areas)		
PARKING LOTS (for 50 vehicles)		

Land Selection and Studies For Design

Istanbul was chosen as the biggest city to collect gifted children in terms of location choice. However, it was necessary to find natural environments which all the students asked for. Accordingly, on the slopes overlooking the Black Sea in Sarıyer District, a land proposed by the municipality nearby Gümüşdere Village was decided (Figure 3). Because of the presence of the land in Istanbul, the training will be supported by many universities, including Koç University and Boğaziçi University Sarıtepe (north of the Sarıyer) Campus. The weak side of the land is being its calm and natural environment in danger due to its proximity to the newly constructed third bosphorus bridge and the new airport.

Figure 3.
Project Area Close to The Gümüşdere Village Sariyer İstanbul

Following the land-environment investigations in the research process, other investigations were conducted:

- Domestic and overseas samples of the selected child villages were investigated and discussed in the class (Web 9)
- Ankara Pursaklar and İstanbul Koruncuk Foundation samples from the Turkish child village models were examined on site.
- Pediatric physiology and psychology and their effects on school structures were examined.
- Sustainable life - architectural examples and sustainable education models were examined.
- Ecological, economical and energy efficient buildings and design principles were examined.
- The social center and accommodation arrangements were examined.
- Sustainable buildings and eco villages for architectural planning were examined.
- Architectural examples design according to place have been studied.
- Traditional and modern construction techniques have been studied.

Healthy construction materials have been examined.

Project Design Process

- The architectural building needs program was finalized.
- Function diagram and stain studies have been completed.
- The design, starting at 1/500 scale, is detailed to 1/200 scale.
- System details, point details, measurements, materials, structure have been finalized.

The project has been matured with three juries (defensive architectural project exam), two in the midterm and one in the final. At the end of the design process, the ecological, sustainable "Gifted and Talented Student Training Center Project" was completed[3]. Each of the seven groups in the studio designed a different concept other than the design they have started. Each group obtained different space construction and architectural design with different function diagram using the same architectural program (Figure 4-6). The common side of the projects is that buildings

[3]Special thanks to the master architect Mr. M. Bahadır Tosunlar, who was in the process as an instructor in ADOBE Studio, the master architect Mr. Adnan Demirtaş, architect Dr. And Akman, who helped us as ecology consultant, Mr. Faruk Bayır, who conduced us to study gifted and talented children's education center, Ankara Pursaklar and Istanbul Koruncuk Foundation officials, Selçuk BİLSEM institution manager and teachers and the mayor of İstanbul Sarıyer Municipality, and urban planner Mr. Murat Durna.

being built with wood, stone, soil (traditional-natural-ecological) construction materials and becoming an architectural design that can meet to modern needs.

Figure 4.
Group Drop (Damla) and "Water Drop-Ecology" Concept Modeling Project Visuals

Figure 5.
Group Aura and "Feng-Shui" Concept Model Project Visuals

Figure 6.
Group FairyTale (Masal) and "Educational Street" Concept Models Project Visuals

Results

Architectural design studios, as space design experiencing places, redound the architecture students the ability analyzing, establishing spatial-formal relations, making decisions, expressing ideas with three-dimensional drawings, problem presentation, solving and synthesis. Due to the complexity of the problem, different techniques have been used such as discussing with the professors and scientists about the issue, conducting surveys, following the related literature and present them in the studio. It has been the hardest part of studio training to follow the various educational policies in the world and to investigate what gifted children can work with and to make a training fiction and architectural needs list with an empathic approach. Collaborating with different professions, producing probing solutions, creating healthy spaces within the framework of sustainability by analyzing the environment and land, space dimensions, human actions, reaching solutions by forming the structure have been conducted by the students with the orientation of the studio manager.

The ADOBE/Toprak Design Studio of Selcuk University Architectural Faculty's Department of Architecture has a different design experience with the "Gifted and Talented Children's Education Center Architectural Project" in the Spring Semester 2015-2016. This study explains the process of forming the gifted child education which is not common in our country, the selection of the land, the programming of the educational needs, analysis, synthesis and the design of the space during the process of design experience. It was aimed to share the architectural needs program and architectural projects obtained at the end of the project with the whole world of

science (especially in the field of education, educational psychology, etc.) to speed up the studies conducting in our country.

At the end of the study, two different groups of results were obtained, namely gifted and talented children and ADOBE / Toprak Design Studio.

A. Words to say for gifted and talented children's education centers:

- Gifted and talented children are important treasures of a country. For this reason, their education should be built with a special curriculum and special attention. These schools, which are not available in our country in sufficient quantities and qualities, should be brought to an appropriate education format with their unique curriculum.
- The original educational model to be created should also be an educational space in a unique architectural style.
- The education center to support education will be provided by producing the most appropriate designs by discussing the scientists, educators, users, children, and architects working on this subject.
- Designers should not forget that users are children, there should be interesting spots that will enable them to meet with nature and create many activity areas. It is important that the design conforms to the human health criteria.
- This paper makes a clear call to the scientific community to collaborate on the development of the project on the gifted and talented student education center.

A. Words to say for ADOBE / Toprak Design Studio and the students

- The architectural problem, solved by developing a different subject and research method, improved the design power of the students.
- This study has taught the method of solving the design problem by collaborating with different fields of science such as education and educational psychology.
- The educational contribution of strengthening the human-nature relationship in education has been learned in architectural design.
- Architectural design development has been experienced in a different region and geography in Istanbul.
- An approach to the creation of gifted and talented children's education center design has been demonstrated.
- Group work experience took the lesson in a racing mood during the semester. Group work ensured a strong work by meeting without a fight, and a power of unity. Because it is not an original architectural building needs program, the time lost during the design process has been overcome thanks to the dynamic nature of the group work.
- Energy efficient design was carried out by developing sustainable architectural design skill. Selected details such as wood, stone, and soil have been developed

details with local materials and referred to local architecture, achieved the sustainable healthy design.

- By inviting BİLSEM (Science and Art Centers) teachers and students to project juries, their views were taken into account in project development. The study is presented to experts in the field of educational architecture, education and education psychology in order to contribute to developments in their field.

Author Declaration

This article was created by the development of the "Gifted and talented Children Education Center Architectural Project Experience Process" presented at the International Gifted and Talented Congress (Istanbul - 2017).

About the Author

Author has worked for Selçuk University Faculty of Architecture Department of Architecture Department of Restoration as the research assistant, lecturer and assistant professor since 1990. She has presentations, articles, and projects on architectural conservation, architectural design, history of architecture.

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