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Special Educational Buildings and Accessibility

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Abstract

In special education and rehabilitation buildings, where physically and mentally disabled individuals receive education and develop some social skills to integrate themselves into social life, many problems are faced depending on the design. The reasons for this are the inadequacy of architectural solutions, the lack of a user-oriented design from scratch, the buildings having different functions before, and the fact that these converted buildings cannot fully meet the requirements of the user. The surplus of "converted special education buildings" in our country and this building group being suitable for the requirements of special education students, and all their requirements are planned from the ground up, and what can be done to make the existing converted buildings affordable with the least cost, designing an accessible and barrier-free special education building were the focal points of the study. There were 4 types of answers in the study, which are compatible, incompatible, partially compatible, and Not Applicable. These types of answers; will be obtained by considering the evaluation forms consisting of TS12576, TS 9111, and "ADA Standards" and Special Education Regulations. The data obtained will show us that the full efficiency could not be reached during the conversion because the building was not designed from scratch for the disabled at the scale of the standards.

1. INTRODUCTION

Today, disabled people who face design problems in the physical environment cannot participate in social life, and cannot use many rights and opportunities granted to individuals without disabilities and are called "for all individuals". Architecture comes first in the efforts to increase the participation of disabled people in society. Architecture must include all people and must be suitable for all segments of society without making classifications such as the elderly, children, disabled, men, and women.

It is important to design buildings in educational institutions where all children with or without disabilities can receive education together. In this context, it is important in terms of social interaction to determine the groups that can receive education together according to the disability types and requirements and make the organizations with this understanding. The projects of educational buildings must be reviewed in this regard (Giresunlu, 2011).

Open spaces (i.e., sidewalks, ramps, stairs, pedestrian crossings, vehicle parking lots, open and green spaces, urban furniture), buildings (i.e., entrance to buildings, indoor horizontal circulation, indoor vertical circulation), public transportation services (i.e., vehicles, waiting - transfer - unloading - unloading areas, stops, stations), and information, marking and tactile surfaces (i.e., information and marking, tactile - sensible surface) must be considered in detail and must be created in line with the standards, measures, principles, and rules that will guide the design and application (OZIDA, 2010).

The standards regarding the disabled are TS 9111, TS 12576, *TS 12460*, *TS 12574*, *TS 12575*, TS ISO 23599, TS 13536, TS EN 81-70/A1, TS EN 81-41, TS EN 81-82, TS EN 81-70/A1, TS EN 81-70, TSE

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CEN/TS 81-76, TS EN 81-40, TS EN 81-41, TS ISO 9386-2, TS ISO 9386-1. These standards are arranged for disabled people to be in an accessible environment.

Among these standards, *TS 12576* Urban Roads - Structural Measures and Design Rules of Marking on Streets, Avenues, Squares and Roads for the Disabled and Elderly People have significant recommendations for the accessibility of the physical environment.

- *T.TS 12460* Urban Roads - Rail Transport Systems - Part 5: Design Rules for Facilities for the Disabled and Elderly,

- *TS 12574* Urban Roads - Rail Transport Systems - Part 10: In-Station Sign and Graphic Design Rules,

- *TS* 12575 Urban Roads - Rail Transport Systems - Part 14: Station Platform Seating Elements.

The only reference in housing harmonization suitable for the disabled and the elderly is TS 9111, Rules for Regulation of Buildings for the Disabled to Reside.

There are many laws and regulations in our country to enable disabled people to participate in society and daily life. However, it is seen that these requirements are not fully reflected in the design and the city. When special education buildings are divided into new and converted buildings, these deficiencies are more common in converted buildings.

The purpose of the study was to determine the criteria of TS12576, TS 9111, and "ADA Standards" and Special Education Regulation, which prevent the Pera Special Education Building, which is a converted building in the city of Samsun, Atakum District scale, from having equal rights and opportunities for private individuals and disabled individuals, and constitute the evaluation criteria. As a result of these evaluations, it was also aimed to determine how much and in which direction the criteria are applied and to propose solutions in this respect.

The reason for choosing the Atakum District of Samsun as the study area was the higher socio-economic level than the central district and other districts, and it is believed that deep problems will be at a low level and more accurate results will be achieved.

The limitations of this study were that the orthopedic disability group was the most adversely affected by physical disabilities.

THE DISABLED AND THE RIGHT TO EDUCATION

Although the terms "disabled", "handicapped" and "crippled" are used interchangeably in general, they mean different things. According to the dictionary of the Turkish Language Association (TDK), "disabled" means having a defect or deficiency in his body, "handicapped" means defected, defective, and "crippled" is defined as a person who is sick or has a missing part in his body.

A total of 29.2% of the disabled are mentally handicapped, 25.6% are disabled with a chronic illness, 8.8% are orthopedically disabled, 8.4% are visually impaired, 5.9% are hearing impaired, 3.9% are mentally and emotionally disabled, 0.2% have speech and language disabilities, and 18% have more than one disability in Turkey. Also, 56.8% of the registered disabled individuals have a disability as a result of illness (Statistics Bulletin, 2019). Up to 80% of disabled individuals are in a position to benefit from their right to education with the necessary adaptations and taking the necessary precautions.

The disability groups are grouped as follows according to the individual learning material prepared by the T.R. Ministry of National Education to guide students in the framework curriculum applied in vocational and technical education schools/institutions (MoNE, 2011).

- Visually impaired
- Hearing impaired people
- Those with orthopedic and chronic diseases
- Mentally handicapped
- Those with language and speech difficulties
- Those with learning difficulties
- Gifted and talented people
- People with emotional and behavioral disorders

In addition to these, individuals with special educational requirements are described as follows.
1. Individuals with specific learning difficulties
2. Individuals with emotional, behavioral, and social adjustment difficulties
3. Individuals with autistic characteristics
4. Individuals with superior intelligence and talent
5. Individuals with attention deficit and hyperactivity disorder (Öztürk, 2011).

In light of this classification, the concept of accessibility was reduced to orthopedically disabled and the study was conducted in terms of physical disabilities.

In the law with the number 5378, which was enacted for the disabled, it is stated that "Disabled people cannot be prevented from receiving education for any reason. Children with disabilities, young people, and adults are provided with equal education opportunities in integrated environments and with non-disabled people, considering their special situations and differences.

As education is a dynamic and versatile right, and its effects on civil and political rights and social, economic, and cultural rights are understood, more importance is given to the right to education in the field of international human rights (Çağlar, 2009). A dynamic society must meet the expectations of society by offering equal rights to each individual. It is observed that the disability of the disabled person affects the enjoyment of his rights negatively, except for his disability.

Disabled people are defined as "people with long-term physical, mental, intellectual or sensory impairments that hinder full and effective participation in society on an equal basis with other individuals" in Article 1 of the United Nations Convention on the Rights of People with Disabilities (United Nations Convention on the Rights of the Disabled, 2009; Ertürk, Şimşek, Songür, Şengül, 2014).

The first document directly specific to the rights of people with disabilities, the Declaration on the Rights of the Mentally Disabled, was published in 1971 (Çağlar, 2009). The purpose of publishing the paper was to see the mentally handicapped group as the group most in need of protection. Many of the currently defended rights of the mentally handicapped, such as education, training, health, rehabilitation, care, and assistance, were included in this declaration (Çağlar, 2009).

The UN General Council published the Declaration on the Rights of People with Disabilities in 1975. The declaration aimed to guarantee the rights of all disabled people without discrimination.

The World Program of Action was the first international document that included long-term policies regarding people with disabilities and was presented worldwide in 1982.

The Convention on the Rights of the Child was adopted in 1989, in which an important step was taken for all children, as well as for children with disabilities, with provisions specific to children with disabilities. There was also the right to benefit from special care in the Convention on the Rights of the Child.

The period between 1993 and 2002 was recognized as the Asia-Pacific Decade of the Disabled. The theme of this process was "Full Participation and Equality of People with Disabilities".

Attention was drawn to making the rights and freedoms of disabled people available to everyone equally and without discrimination in the Vienna Declaration and Action Plan in 1993.

The period between 2003-2012 was accepted as the 2nd Asia-Pacific Decade. Mechanisms to empower the disabled were activated, and work on the field was accelerated.

The Convention on the Rights of People with Disabilities was adopted in 2007. The general principle in the Convention was not to integrate the disabled with the rest of society, but to include the disabled within the society and to use the term "inclusive" in the sense of building formulas to strengthen their social belonging, reflecting a very contemporary interpretation of the human rights of the disabled (Çağlar, 2009).

The Convention on the Rights of People with Disabilities was published in the Official Gazette in 2009 aiming to encourage and ensure the full and equal enjoyment of all human rights and fundamental freedoms by people with disabilities and to strengthen respect for their human dignity. Articles related to the accessibility of education for the disabled were also included in the Convention.

Aside from the decisions under the name of the right to education for the disabled, which are included in the International Law and the Turkish Legal System, it was regulated in standards and regulations to provide the necessary physical opportunities for the disabled to benefit from all their rights, especially education.

The discipline of architecture can produce solutions that can be used, accessed, and made accessible to everyone. The right to education can be made accessible to people with disabilities. The obstacles in the current situation can be eliminated with necessary solutions. Special education and rehabilitation centers are among the places where accessible design is most necessary in educational institutions shaped according to disability.

SPECIAL EDUCATION AND REHABILITATION

According to the Universal Declaration of Human Rights, everyone has the right to receive education. Also, according to Article 23 of the United Nations Convention on the Rights of the Child, Turkey accepted that the rights of children with special educational requirements would be guaranteed. In this respect, our country recognizes that children with mental or physical disabilities must have a full life that secures their dignity, develops their self-confidence, and enables them to participate effectively in social life. Article 42 of the Constitution states that "No one can be deprived of the right to education and training" (Dişyapar, 2015). In this regard, the right to education is a right guaranteed by the Turkish Constitution for all citizens (MoNE, 2013).

The most basic condition for the fulfillment of the right to education is the presence of institutions to provide education. Education must be physically accessible in a safe way. The disabled need to be able to receive education with minimal assistance, take lessons in an accessible and accessible place, and be able to do various activities. This importance increases even more in the buildings of special education and rehabilitation centers where disabled people receive education.

"An individual who requires special education is defined as an individual who differs significantly from his peers in terms of individual characteristics and educational qualifications for various reasons" (Executive Order on Special Education). Special education aims to help individuals who are in need develop basic life skills in a self-sufficient manner, establish good relations with their environment and adapt to the environment, work with a policy of cooperation, and prepare them for their professional fields and life in line with their requirements, abilities, and competencies along with appropriate education programs (T.R. Prime Minister's Office, Presidency of Administration for the Disabled).

In the Regulation on Special Education Institutions of the Ministry of National Education (2012), a special education and rehabilitation center is defined as "a private education institution that provides support education services to individuals with disabilities who are determined to need support education as a result of the educational evaluation and diagnosis made by the special education evaluation boards". Support

training programs specific to the diagnosis groups determined by MoNE are used in this context. These programs include Support Education Programs for Individuals with Physical Disabilities, Language and Speech Difficulties, Visually Impaired Individuals, Hearing Impaired Individuals, Special Learning Difficulties, Common Developmental Disorders, and Mentally Handicapped Individuals, and special education and rehabilitation services are provided to individuals in line with these programs. For this reason, as well as the fact that existing institutions include individuals from many disability groups, designing them in line with universal design principles, including the social environment of individuals, is of great importance in terms of equal participation and accessibility in social life and constitutes a priority for increasing the quality of life (Kaplan and Aksoy, 2019).

It is argued that 80-90% of children who need special education receive education in schools in the general education system, and 10-20% of children with more serious disabilities receive education in special education schools. It is predicted in studies that 20% of people have moderate disabilities and 75% of those have mild disabilities (Çağlar, 2009).

Structural and functional problems of special education schools bring difficulties for the individual receiving education. In this regard, changes must be made and some measures must be taken to solve the difficulties. Within the scope of education accessibility elements, the most important thing is that it is an institution where education will be provided. In addition to the quantity of the institution, its qualifications must also be suitable for providing education to the disabled and it is necessary to create a safe and accessible educational environment with the physical quality of institutions such as the size of the classes, the number of students studying (Çağlar, 2009).

In educational institutions, hygiene of classrooms, toilets, kitchens, dining halls, and other common areas, minimum equipment such as clean drinking water, sufficient light and ventilation, and the presence of appropriate spaces are very important for the student who spends most of the day in these places (Çağlar, 2009). For this reason, the building to be built must meet certain conditions. Not giving opening and working permits to educational institutions that do not have toilets suitable for the use of all kinds of disabled people, that do not have ramps in cafeterias, laboratories, classrooms, and other places related to education, that do not contain large font and Brail Alphabet or light and sound direction signs, and the removal of barriers to access to education are effective solutions in this respect.

The barriers to participation in education must be removed to ensure access to education. In this sense, it is very important to design the indoor and outdoor spaces, educational materials, curriculum, and training timetable in the educational institution in a way that is suitable for the use of the disabled and to provide effective education. This will help them to participate in education and training at the highest level and to benefit from education at the highest level (Çağlar, 2009).

Standards and regulations that facilitate disabled people's enjoyment of their education and similar rights were investigated in previous studies by many people in institutions and organizations and studies have been conducted on their applicability.

PREVIOUS STUDIES

The studies encouraging us to work on people with disabilities and special education have been reached to define the problem and are listed in the following part according to the date of publication.

Kaya I.S. Journal Article, Ege Architecture, 2002/4. In this article, Kaya mentioned that "educational buildings" are among the buildings in which social evaluations have great importance. Special education schools in this group require more careful evaluations in terms of user potential. The fact that students who need special education have physical and/or mental disabilities creates different requirements for healthy students. Naturally, education will develop positively by selecting and designing schools and their environments in line with this target. In light of this, 3 schools were examined (Uri Village/Korea, Turbulences/France, Enver Bakioğlu, Teachable Mentally Handicapped Boarding, and Day Rehabilitation Center/Izmir).

Güngör C. Ph. D. Thesis, 2007. In his thesis, the problem definition was focused as "The limited access of people with physical disabilities to the services provided by the building in social areas and public buildings because of architectural barriers that stem from the built environment". The present situation in two shopping malls built in different periods in the city of Ankara was examined to determine whether accessibility standards are ongoing as a part of social life and whether they are currently applied in a building type or not. This study made use of the formation of the method used and the evaluation forms created in the present study.

Guo, Xiao Ye/China; Graduation Thesis, 2009. In the study that was conducted with the field design based on the behaviors of children with disabilities in special education schools, it is emphasized that special education schools must be unique schools when compared to other schools. Children are excluded from schools because of special behaviors. Schools in Beijing, Shanghai, and Guangzhou were examined to provide unique spaces for them. Analysis and studies were conducted on the behavioral characteristics and requirements characteristics of children with disabilities.

Evcil A.N. (Book), 2014. The purpose of the book, Design for Everyone, Universal Design is to introduce design to everyone who has a new concept and understanding of design, make this design concept noticed especially by designers, draw attention to different user groups that make up society, address the missing parts of the design, produce solutions for individuals whose lives are restricted because of mistakes.

Mapunda PH, Omollo AD, Bali TAL, Article, 2017. The purpose of the study is to make the requirements compulsory for children in special education schools of Dodoma Municipality, Tanzania as a study aimed at improving practices in this area.

Kaplan G., Aksoy V., Article, 2019. In this study, the purpose is to examine the physical conditions of special education and rehabilitation centers in Eskişehir in line with universal design principles. The Descriptive survey Model, which is one of the quantitative research methods, was used in the study. Thirteen institutions in Eskişehir were determined as the study population. The data collected with the "Universal Design Checklist" developed by the researchers were obtained through direct observation.

All these studies formed the basis for the present study. Necessary standards and regulations for Samsun Pera Special Education and Rehabilitation Center were discussed and an evaluation form was created in this respect.

The methodology at this stage of the study is as follows:

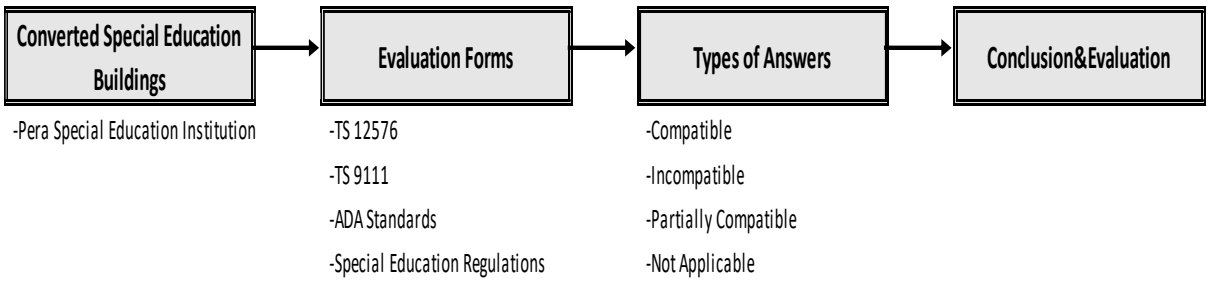


Figure 1. *The methodology of study*

2. METHOD

Table 1. *Method Table*

Method	**Working Method**
Study Model	Scanning Model
Population	Physical Built Environment
Working Population	Educational Buildings
Sample Cluster	Special Education Buildings
Dependent variable	Accessibility
Independent variable	Turkish Standards Related to Physical Built Environment and Disabled People, Regulation on Private Education Institutions
Intermediate Variable	Evaluation Forms
Technique	Data Collection and Evaluation through Observation and Review

In the present study, although the special education building was designed, it was mostly found to be compatible in terms of accessibility. The building was originally designed as a student dormitory, not an educational building, which brought with it many accessibility problems. These problems are incompatible and appear with partially compatible answers. When the building was evaluated in general, it was determined that it can be made more convenient for disabled users with reasonable adaptation and modification suggestions. It was sufficient to meet the conditions in the directive required to open a Special Education Center. However, when examined in terms of accessibility, many different types of problems were faced by the disabled user.

It is the responsibility of the architects to consider disabled users and to make the spaces in the quantity, size, and quality that everyone can use at the very beginning of the design process (Karagöz, 2019). But today, most of the private education buildings have been created as a result of the transformation of buildings that had different functions before. In this case, many problems emerged in terms of accessibility. No previous study was detected on this subject under the name of Accessibility in Special Education Buildings. Accessibility is a parameter that must be provided not only for the disabled person but also for everyone. For this reason, evaluation forms that consisted of TS12576, TS 9111, and "ADA Standards" and Special Education Regulations will help us to understand accessibility problems for the study area.

There were 4 types of answers in the study, which are compatible, incompatible, partially compatible, and Not Applicable. Solution suggestions were made for these types of answers. The compatible answer shows that the area for which the answer is sought is accessible and can be reached in its current form without any intervention. The answer incompatible indicates that the situation is not suitable in terms of accessibility. The problem can be solved from the beginning by making the current situation accessible by making changes, with a proposal to make the concept of reasonable agreement. The partially compatible answer refers to the situation that can be made accessible by making practical analyzes with low cost. The concept of reasonable agreement can be made accessible by the adaptation method with little cost and less energy consumption. An Not Applicable answer means that the answer to the question asked is not available. The solution suggested for this answer is universal design. The area where the answer is sought is made accessible with a design suitable for everyone from the beginning. The building can be made more accessible with these solution suggestions.

Sample

The reason for choosing the Atakum District of Samsun as the study area was that, considering the city of basis, the socio-economic level was higher than the central and other districts, and it was believed that deep problems will be at a low level and more accurate results would be achieved.

The sample of the study consisted of Pera Private Education Institution, which was chosen as a "converted special education building" in Samsun. The majority were physically disabled among the 75 students at the school. For this reason, the standards in the study conducted and the evaluation form used was chosen considering the physically disabled users. There are no visually impaired students in Pera Special Education Institution. For this reason, the standards and precautions that must be followed for the visually impaired user can be ignored.

Figure 2. *The School Building and its surroundings*

Data Collection Tool: Evaluation Forms

The evaluation forms were created by using the Accessibility Standards and the Regulation on Private Education Institutions in the examination of the Special Education Institutions. The data were collected with the Evaluation Forms and observational analysis. Observation and evaluation of the physical environment and building design criteria are based on the evaluation forms created. The purpose of the evaluation forms was to determine the factors that affected disabled users in the physical environment.

Numerical data were obtained in the evaluation forms. The obtained numerical data correspond to the questions answered in the form. In this context, compatible, incompatible, partially compatible, and Not Applicable answers were determined. Since the compatible answer would not contribute to the accessibility value of the building, it was determined as "0". The answer for incompatible contributed to the accessibility value of the building, its value was "5", and it posed a problem for the disabled. The value of the partially compatible answer was "3" indicating that the problematic situation can be smoothed out through Reasonable agreement. The Not Applicable answer was not given any number value and indicated that these questions did not have an answer in the building.

When the forms were created, 4 groups were formed, which were divided according to places such as size, material, condition, and marking. As a result of the data obtained, the accessibility value was determined. For situations in spaces, suggestions are presented under 4 headings as universal design, Reasonable agreement, adaptation, and change.

Analysis of Data

1. Universal Design

Designing products and livable environments to be used by people of all ages and abilities without the need for adaptation are called universal design (Mace, Hardie & Place, 1991).

Universal design is defined as "designing products, environment, programs, and services so that they can be used by everyone as much as possible without the need for a special design or adaptation afterward" in the Convention on the Rights of People with Disabilities (Çağlar, 2009).

Universal design is always accessible because it is considered a target from the beginning of the design process (Belir, 2018) and must not be confused with other solutions used for accessibility. An added ramp or auxiliary equipment cannot be explained with the principle of universal design.

A group of researchers at Cornell University created 5 basic points to explain the Universal Design concept in the field of architecture (Aslaksen, Bergh, Bringa & Heggen, 1997).

1. The building should be of equitable use and accessible to everybody.
2. The building and its design should be easy to understand and to use by all people.
3. The design of the building should demand low physical effort, and be used efficiently and with a minimum of fatigue.
4. The whole building/project should be designed for use by all people, regardless of users" body size, posture, or mobility.
5. The building's use of materials and the indoor climate should not lead to uncomfortable conditions.

Providing education in line with the principles and standards of universal design in educational institutions built in line with the universal design will increase the independence of the disabled as well as help them to participate in education at the highest level and to benefit from education at the highest level (Çağlar, 2009).

Universal design is among the most important factors for the principle of accessibility.

2. Reasonable agreement

Reasonable agreement refers to the changes and adaptations that need to be made to meet personal requirements that come into the agenda in areas where there is no universal design, or that emerge despite the universal design. For example, adding a ramp to an educational institution that was not built in line with the universal design is considered reasonable agreement (Çağlar, 2009).

"Reasonable agreement" means necessary and appropriate changes and harmonization needed in a particular situation, do not impose an excessive or excessive burden, to ensure that people with disabilities fully and equally enjoy their human rights and fundamental freedom" (Ersöz, 2020).

Reasonable agreement aims to provide a reasonable balance between the responsibilities of educational institutions and the right to education of people with special educational requirements.

As the name suggests, the concept of Reasonable agreement means that the changes and adaptations needed in the concrete situation are necessary and proportionate or do not impose an excessive burden. Reasonable agreement is an important concept for the accessibility principle.

2.1. Adaptation

One of the two practices of Reasonable agreement is the concept of adaptation, which refers to additions and supports that will not cause any change in the content and functions of education in physical spaces. For example, less radical measures such as giving a person who has a lecture note next to a visually impaired student to read the necessary information to him is an example of the concept of adaptation.

2.2. Modification

Another practice of Reasonable agreement is the concept of modification, which requires further and more radical steps than adaptation. If the place poses a problem at the level of accessibility and simple harmonization is insufficient, modifications are made to the place. Also, this concept was considered equivalent to the concept of redoing without working.

Results

The findings obtained in the study were reached through the evaluation forms. The questions in the evaluation forms were divided into groups according to 4 different areas.

Status: It refers to the regulations affecting the use of the design creating an obstacle for the user.

Table 2. *Status types of questions "Environment of the Building" and "Entrance to Building" evaluation form*

STATUS	**ENVIRONMENT OF THE BUILDING**				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Are alternative roads around the building accessible?			X	
2	Is the road around the building accessible for emergencies?	X			
3	Is there any maneuvering space required for the disabled user in the building parking lot?	X			
4	Is there an elevation difference at the entrance to the garden?	X			
5	Are the areas with elevation differences in the garden removed with a ramp?				X
SITUATION	**ENTRANCE TO THE BUILDING**				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Is the building easily accessible?			X	
2	Is the entrance to the building well-lit?	X			
3	Is the entrance to the building flat?	X			
4	Is there sufficient maneuvering space at the entrance of the building?			X	
5	Are flower beds, signboards, trash cans, etc. at the entrance of the building placed in such a way that they do not obstruct the passage?			X	

Table 3. *Total evaluation form in the status types of questions*

TYPES OF QUESTIONS	STATUS			
NUMBER OF QUESTIONS	10			
TYPES OF ANSWERS	Compatible	Incompatible	Partially Compatible	Not Applicable
NUMBER OF ANSWERS	5	-	4	1
ANSWER VALUE	0	5	3	-
PERCENTAGE OF ANSWER	50%	-	40%	10%
SUGGESTION	-	-	Reasonable agreement	Universal Design

a) Building entrance **b)** Guide blind tracks on sidewalk **c)** Ramp

Figure 3(a,b,c). *Status visuals of the environment of the building and the building route*

Criterion: Indicates whether the factor that affects the use in the design is in line with the standards.

Table 4. *Measurement types of questions "Environment of the Building" and "Entrance to the Building" evaluation form*

MEASUREMENT	ENVIRONMENT OF THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Electric poles, signs, ornamental plants, etc. in the garden at least 150 cm free from objects.Is there a wide transition area?	**X**			
2	Are the ramps around the building at least 90 cm wide?				**X**
3	Is the slope of the ramps around the building at most 5%?				**X**
MEASUREMENT	ENTRANCE TO THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Is the clean passage width of the main entrance door at least 100 cm?	**X**			
2	With the door open, is there a clean maneuvering area of at least 150 cm x 150 cm in front of the entrance to the building?	**X**			

Table 5. *The total evaluation form in measure types of questions*

TYPES OF QUESTIONS	MEASUREMENT			
NUMBER OF QUESTIONS	5			
TYPES OF ANSWERS	Compatible	Incompatible	Partially Compatible	Not Applicable
NUMBER OF ANSWERS	3	-	-	2
ANSWER VALUE	0	5	3	-
PERCENTAGE OF ANSWER	60%	-	-	40%
SUGGESTION	-	-	-	Universal Design

d) Main entrance door

e) Building entrance door

f) Ramps around the building

Figure 4(d,e,f). *Entrance to building and building perimeter measurement type visuals*
Material: Indicates whether the material used in the design complies with the standards

Table 6. *Material types of questions "Environment of the Building" and "Entrance to Building" evaluation form*

MATERIAL	ENVIRONMENT OF THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Is the entrance surface to the garden flat, stable, and durable?	**X**			
2	Is the garden surface covered with non-slip material in wet-dry conditions	**X**			
MATERIAL	ENTRANCE TO THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Is the entrance to the building floor hard, smooth, and slip resistant?	**X**			

Table 7. *The total evaluation form is in material types of questions*

TYPES OF QUESTIONS	MATERIAL			
NUMBER OF QUESTIONS	3			
TYPES OF ANSWERS	Compatible	Incompatible	Partially Compatible	Not Applicable
NUMBER OF ANSWERS	3	-	-	-
ANSWER VALUE	0	5	3	-
PERCENTAGE OF ANSWER	100%	-	-	-
SUGGESTION	-	-	-	-

g) Building entrance surface **h)** Garden ground surface **ı)** Floor material

Figure 5(g,h,ı). *Material images of the entrance to the building and the surrounding the building*

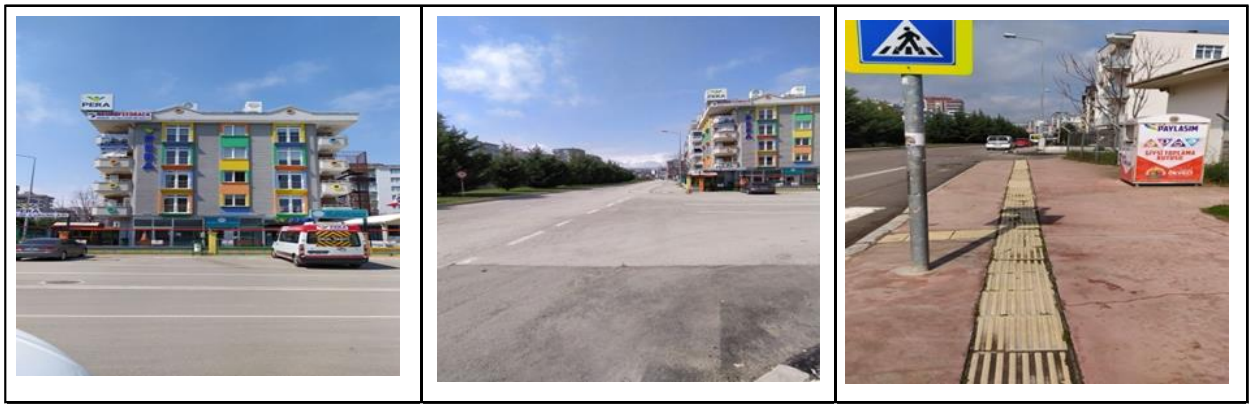
Marking: It indicates whether there are markings that must be in the design and whether the existing ones comply with the standards.

Table 8. *Marking types of questions "Entrance to Building" and "Environment of the Building" evaluation form*

MARKING	ENVIRONMENT OF THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Are ramped and stepped roads perceptible and noticeable with the marking?		**X**		
2	Are there any directional signs to the ramp that is not visible from the walking route?		**X**		
MARKING	ENTRANCE TO THE BUILDING				
QUESTION NO	QUESTION	COMPATIBLE	INCOMPATIBLE	PARTIALLY COMPATIBLE	NOT APPLICABLE
1	Is the entrance and route to the building indicated with signs?		**X**		
2	Are alternative accessible routes and entrances indicated with signs?		**X**		

Table 9. *The total evaluation form in marking types of questions*

TYPES OF QUESTIONS	MARKING			
NUMBER OF QUESTIONS	4			
TYPES OF ANSWERS	Compatible	Incompatible	Partially Compatible	Not Applicable
NUMBER OF ANSWERS	-	4	-	-
ANSWER VALUE	0	5	3	
PERCENTAGE OF ANSWER	-	100%	-	-
SUGGESTION	-	Making Changes	-	-



j) Building **k)** Building surroundings **l)** Building route

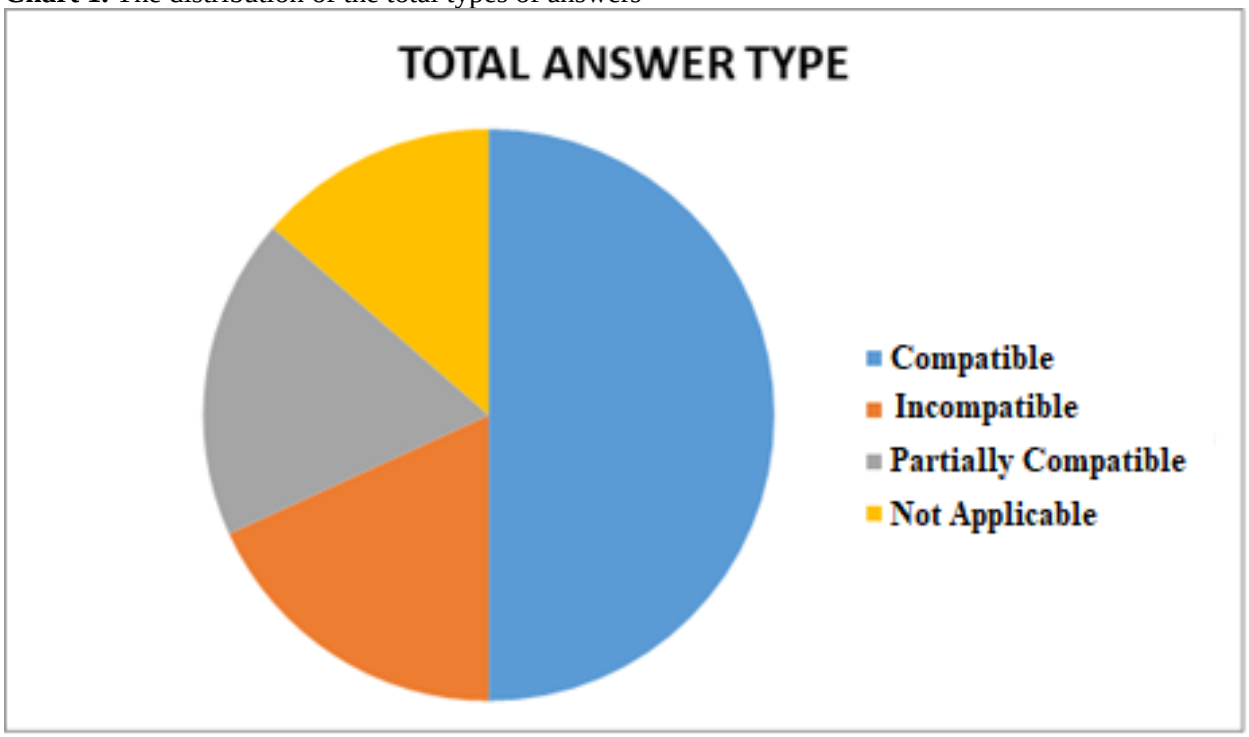
Figure 6(j,k,l). *Images of the entrance to the building and immediate surrounding markings of the building*

In all these evaluation forms, Form 1 and Form 2 under the name of Environment of the Building and Entrance to the Building were examined and a final form was created.

Table 10. *Form 1 and Form 2 results form*

TYPES OF QUESTIONS	FORM 1 + FORM 2			
TOTAL NUMBER OF QUESTIONS	22			
TOTAL TYPES OF ANSWERS	Compatible	Incompatible	Partially Compatible	Not Applicable
TOTAL NUMBER OF ANSWERS	11th	4	4	3
ANSWER VALUE	0	5	3	-
PERCENTAGE OF TOTAL ANSWERS	50%	18.18%	18.18%	13.64%
SUGGESTION	-	Making Changes	Reasonable agreement	Universal Design

Chart 1. The distribution of the total types of answers



5. CONCLUSION AND RECOMMENDATIONS

Educational buildings must be arranged in a completely non-obstructed way. When Special Education Buildings are considered, this becomes more important. In this design group, one or more situations may be faced that restrict the movement of the individual. Accessibility must not be a problem when receiving the education that is the right of the individual.

Special Education Buildings are primarily designed for the service of disabled individuals and must be “accessible for everyone”, both for the teaching group and the student group, with the necessary physical conditions and conformity criteria in terms of standards.

In this context, the following was determined about the building examined.
-The desired criteria in the context of Turkish Standards could not be reached, both inside and around the building.
-Full efficiency could not be reached during the conversion because the building was not designed from scratch for the disabled at the scale of the standards.

-Special Education Buildings must be of equal use and accessible to all and must be readable, understandable, and easily usable by everyone starting from the environment of the building and the entrance to the building.

Today, “education” plays an important role in the lives of people who have disabilities. Places have great importance for these individuals to benefit from the right to education. This kind of study must be consulted and support must be obtained when designing spaces or reconstructing them after design.

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