

SIDE PROJECT FOR THE DISABLED IN GOSTIVAR REGION

Engin İlyaz, page 133-159

ABSTRACT

There has been a problem of accessibility since human existence. The formation of a standard design for the disabled is a problem not only in Gostivar but also in many cities around the world. This problem has started to be discussed in recent years with the evaluation of accessibility within the framework of human rights. Determining the factors on this subject is of interest to many different disciplines. However, the role of the architect is very important in the process of applying the required standards.

If accessibility is evaluated in all aspects during the design process, there will be no need for additional investment. It will be easier to ensure the accessibility of buildings. However, the adaptation period of the accessibility of existing buildings takes time and requires additional investments.

The aim of this study is to investigate the standards of arranging the physical space of the city, which is a public space, in order for the disabled to integrate with the society without encountering any obstacles in the society, and to test these standards with application examples. The main aim is to enable disabled people (without accompanying person) to use urban spaces and buildings independently.

Keywords: Gostivar, Disabled, Sidewal.

Mr. Engin İLYAZ
*International Vision
University, Gostivar-
North Macedonia*

e-mail: engin.ilyaz
@vizyon.edu.mk

UDK: 711.6:006.88]-
056.26(497.752)

Date of received:
12.01.2023

Date of acceptance:
25.02.2023

Declaration of interest:
The authors reported no
conflict of interest related
to this article.

INTRODUCTION:

According to the figures of the United Nations, there are 500 million people with disabilities in the world. It is stated by the World Health Organization that about a quarter of the world's population is directly or indirectly faced with some kind of obstacle in their lives. 80 percent of the world's disabled people live in low-income countries and cannot access basic services..

THE CONCEPT AND CLASSIFICATION OF THE DISABLED INDIVIDUAL

As in many countries, people with disabilities are defined by different terms in North Macedonia. For example; Expressions such as disabled, blind, handicap, disabled are used. In the terminology of the United Nations and the World Health Organization, the expression "handicap" has been replaced with the expression "handicapped". The term "disabled" emerges as a concept that requires focusing on "disability", that is, objectifying the phenomenon of disability. On the other hand, disability seems to be a term that can manage to get rid of this obligation, and to provide softening and flexibility in our thoughts, although not immediately.

Disability is defined as the inability or inability to perform activities that are considered normal due to any anatomical, physiological or psychological disorder. Impairment is a problem with body function or structure. Limitation of activity is individuals who have difficulty in performing a task. Participation restriction is a problem related to the participation of the individual in the conditions of life. Disability is not just a health problem. It is a complex phenomenon that reflects the interaction between a person's body characteristics and the characteristics of the society in which they live. Intervention is needed to overcome the difficulties faced by persons with disabilities and to remove environmental and social barriers. People with disabilities have the same health needs as everyone else, such as immunity, cancer screening, etc. Evidence shows that people with disabilities face barriers to accessibility in healthcare or rehabilitation services, as in many settings.

The World Health Organization (WHO) has made a definition and classification of the concept of disability, based on the results of the

disease and focusing on the health aspect, as follows:- Impairment: In terms of health, "deficiency" refers to a deficiency or imbalance in psychological, anatomical or physical structure and functions. Disability (Handicap): In the field of health, "disability" occurs in a particular person as a result of a deficiency or disability and according to that person's age, gender, social and cultural status. It refers to a disadvantaged situation that prevents and limits the ability to perform activities that can be considered normal.

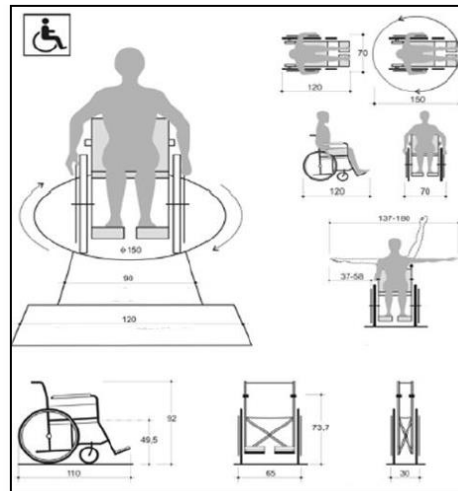
Disability means the loss of physical, emotional or social abilities of the individual for some reason, either congenitally or later. Some genetic reasons, consanguineous marriage, and drug use are among the causes of congenital disability. The causes of disability after birth are seen in people who encounter occupational accidents, home accidents, earthquakes, wars and similar events. Temporary disability, on the other hand, can be caused by events that everyone may encounter in their life; while carrying a load, when you are a child or old, during pregnancy, when your leg bone is broken, etc. In this type of disability, individuals sometimes encounter difficulties in adapting to the environment. Permanent disability is the individuals who struggle with vision, hearing and orthopedic difficulties. Designing a place for everyone means not only wheelchair accessibility, but also the accessibility of people with visual and hearing difficulties. Disability is basically examined under five headings:

- Mentally disabled
- Visually impaired
- Hearing and speech impaired
- Orthopedic disability

PHYSICALLY DISABLED

Hand, arm, foot, leg, finger or spine, as a result of insufficiency, deficiency or loss of function in the musculoskeletal system due to reasons such as shortness, deficiency, excess, absence, restriction of movement in the organs of movement or structures that make up the body of the individual, which do not have the mobility of a normal person, are physically disabled people who can move with assistive devices and tools due to deformity, muscle weakness or loss of function. Especially those with backbone malfunctions, muscle weakening, brain and spinal cord disabilities, those with bone disease, paralysis, cerebral palsy, cispina

bifida, child paralysis, spastic disabilities, that is, those with conditions that limit mobility are included in this group. physically handicapped, One of the most important elements in urban design is the accessibility of wheelchair users. However, wheelchair users have different needs than individuals in the other group. In this context, wheelchair users need wide turning areas, ramps of sufficient width and inclination, stair ramps, etc.



Average dimensions of the wheelchair.

PARTIALLY-SIGHTED

Inability to see occurs as a result of tissue disorder such as structural disorder or injury of one or more elements of the eye. A visually impaired person can see little or not at all as a result of the deprivation or severe insufficiency of vision perceptions in the eye. The National Coordination Board for the Protection of the Disabled has divided the visually impaired into two groups as blind and low vision, and defined them as follows: Despite all corrections, people with a two-eyed vision of less than 10 percent and who do not have the opportunity to benefit from their vision in their normal life and work are called blind.

According to the definition of the Special Education Schools Regulation of the Ministry of National Education, blind; Despite all the corrections, it is a person whose binocular vision is less than 10 percent and who cannot benefit from his eyesight in educational studies. Low vision is defined as those who have less than 30 percent binocular vision and who cannot benefit from their normal life and work without using special tools

and methods. When visual impairment occurs due to age, there are disadvantages of being limited in terms of balance, endurance, reaction time and agility.

It is known that other senses of visually impaired individuals such as smelling, hearing and touching are stronger than sighted individuals. Thus, it becomes easier to find a way-direction. White canes or guide dogs are helpful for the visually impaired. However, environmental design is very important in order to sustain the lives of visually impaired individuals without assistance.

Urban spaces should be designed according to the general population of visually impaired individuals. Accordingly, there should be elements that can facilitate the lives of the visually impaired, such as the positioning of contrasting colors, relief inscriptions, tactile surfaces, audible warning systems, routers, as well as low sidewalks, railings on ramps and stairs in urban space (Milošević et al., 2016).

Disability Statistics

The work of the World Health Organization; It states that as of 2010, 15% of the world's population consists of the disabled population (World Disability Report, 2011). In the 1970s, 10% of the world's population belonged to the disabled population and the increase in the elderly population is among the reasons why this number is increasing day by day. This increase, when the 10% disabled rate in the 1970 statistics is considered as disabled in the elderly population;

THE PROBLEMS FACED BY THE DISABLED IN THE URBAN AREA AND THE ENVIRONMENT WITHOUT OBSTACLES

Barrier-free environment means the arrangement of the environment as barrier-free space. Barrier-free environment means that everyone can move easily without facing obstacles.

Examples of possible negative effects on the environment are .:

- The absence of a sign language interpreter with a hearing impaired individual,
- The inability of a wheelchair user to use the bathroom or the elevator in the building,

- The visually impaired person's inability to use a computer without screen reading software.

One of the most important examples of barrier-free environment (design) is the combination of stairs and ramps. Where there are stairs, there must be a ramp. The slope and width of the ramp must comply with wheelchair standards.

If the width of the area is not sufficient for both the stairs and the ramp, it is best to use only the ramp. Another important element is the laying of different materials on the floor for the visually impaired to guide them. In order for the environment to be completely unobstructed, audio warning systems should also be placed in certain parts of the area for the hearing impaired.

FIELD RESEARCH: Example of Gostivar Municipality

As the aim of this study, at the beginning of the study; “to reveal the society's perception of the disabled and their awareness of the spatial arrangements made for the disabled; To determine how the common physical space is perceived by the disabled, to reveal what physical problems different disabled groups face, to determine how socialization problems are related to the design and use of spaces, In this context, data for the disabled were collected and evaluated on the Gostivar scale.

At each stage of the field study, research questions were formed in line with the purpose and objectives determined at the beginning of the thesis study and supporting the field study method, and it was aimed to create survey questions reflecting the problems determined for these research questions in the continuation of the study. The study was carried out in the city of Gostivar during the month of December. Those who use the district extensively were determined as the target audience and no restriction to reside in the city was sought. The surveys with people who cannot be disabled were conducted face-to-face in the city square, which are intensively used areas in the district, in the villages near the city, and in a few heavily used park areas in the city. It was also carried out on the internet via Google Form.

DATA COLLECTION TECHNIQUES

During the preparation of the survey questions during the research, the definition of the research problems, which were stated at the beginning of the research and which always feeds the study and is reshaped with the feedback of the study, the determination of the objectives, the putting forward of the hypothesis and the research questions constitute important data inputs. The field study carried out after the literature review determines a direction both to reveal the problems identified in the literature and to solve the problems and make suitable designs for everyone by revealing some critical rules that must be followed during the restructuring or rearrangement in our newly developing and changing cities. Considering that each study is important and touches on a different point, in this study, barrier-free space design,

We explain the process with survey study seeking answers to research questions; mainly focused on the barrier-free space and tried to reveal the problems experienced by the disabled in the physical environment of the non-disabled group. In addition to this, determining the expectations from the state and the awareness and satisfaction of the practices provided by the state are among the results targeted by the questions. In the background of the literature, which is argued that barrier-free spaces provide social integration, many questions took place between social relations and physical space relations in order to test and demonstrate the accuracy of this.

At the same time, in the modeling part of the survey questions developed depending on the research questions, objectives and hypotheses, the expected results such as "determining the relationship between physical space and disability and revealing the perception of unhindered space" were determined after the evaluation of the survey data. In the same way, "definitions of the disabled", "acceptance of the disabled", "awareness", "problems and expectations on the street", "the effect of the place on social relations", for the purpose of revealing the perception of the disabled and revealing the perception of the barrier-free space in the surveys by people without disabilities. ” has been tried to be determined by the content of the question.

In the study, the data collection process, analysis and evaluation processes of these data were carried out with the quantitative research technique. As a data collection technique, a questionnaire with 19 questions was prepared for people who are not disabled.

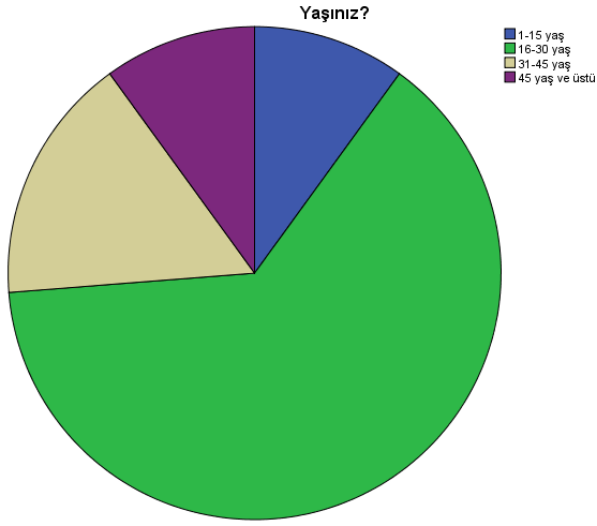
FINDINGS OF THE STUDY

As a result of this situation, 21 people of the evaluation group of 80 people consist of women and 59 of them are men.

Frequency analysis was made in the SPSS program and the first part consisting of personal information with 5 questions showed that 63.7% of the people surveyed were in the 16-30 age group. This is followed by the 31+45 age group with 13 people, and the number of people aged 1-15 and aged 45 and over reaches 8 each with 10 percent.

	Frekan s	Perce nt	Current Percenta ge
1-15 years	8	10,0	10,0
16-30 years	51	63,7	63,7
31-45 years	13	16,3	16,3
45 years and over	8	10,0	10,0
Total	80	100,0	100,0

Personal Information: Age Distribution

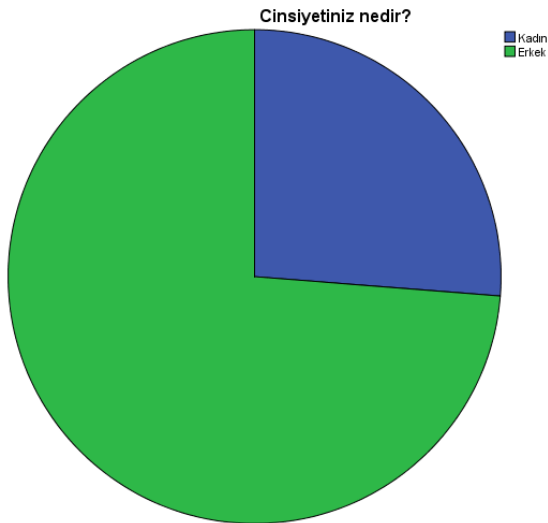


Age Distribution Chart

21 of the research group consists of women and 59 of them men.

	Frequency	Percent
Female	21	26,3
Male	59	73,8
Total	80	100,0

Gender.

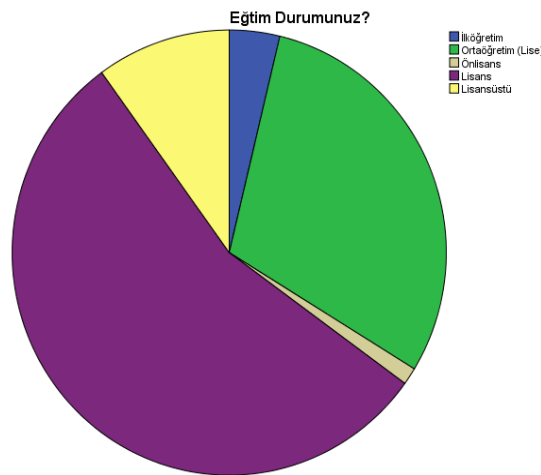


Gender Chart

55% of the group is in license status when we asked about the Education Status. This number is followed by high school graduates and they make up 30% of the total. Graduate group is followed by 10% with 8 people and 3.8% with 3 people from primary education.

	Frekans	Percent
Primary education	3	3,8
Secondary Education (High School)	24	30,0
associate degree	1	1,3
Licence	44	55,0
Master	8	10,0
Total	80	100,0

Personal Information:
Education Status.

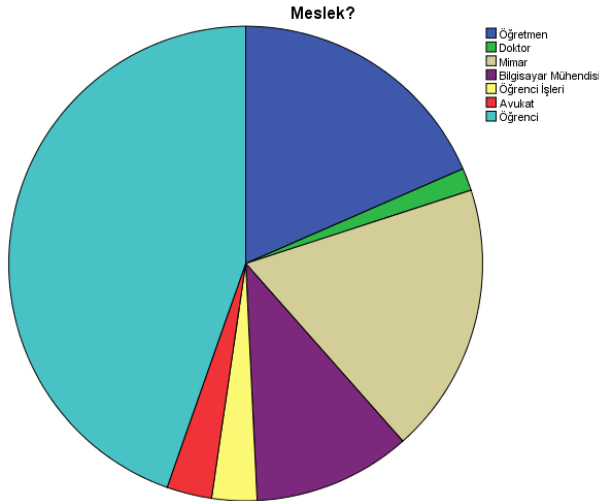


Education Status Chart.

65 out of 80 people answered the question of working status. 15 people, 18.8%, did not participate. Of the 65-person group of 81.3% of the respondents, 44.6% are followed by Students, 18.5% by Teachers and Architects.

	Frekans	Percent	Current Percentage
Teacher	12	15,0	18,5
Doctor	1	1,3	1,5
Architect	12	15,0	18,5
Computer engineer	7	8,8	10,8
Student affairs	2	2,5	3,1
Lawyer	2	2,5	3,1
Student	29	36,3	44,6
Total	65	81,3	100,0
	15	18,8	
Total	80	100,0	

Personal Information: Occupation



Occupation Chart

“Do you feel uncomfortable talking to people with disabilities?” The question was also answered in a graded manner and 91.3% of the participants answered that I would never be disturbed. Among the rest, 3.8% of the people gave the 2nd degree answer, 1.8% gave the 3rd and 4th degree answer, and 2.5% gave the answer as very disturbing. Following this question, people were asked whether they had any friends with disabilities and it was seen that 56.3% of the people answered yes

and 43.7% of them gave the answer no. In addition, a cross-tabulation was made between the two questions and it was examined whether it has an effect on whether people who have a disabled friend are nervous or not while talking with disabled people. 41 people with a disabled friend gave the answer that I would not be disturbed at all, 2 people gave the answer of 2nd degree and 2 people gave the answer that it would be very disturbing. It has been observed that 32 people who do not have a disabled friend gave the answer not to worry at all. Again, 1 person who does not have a disabled friend gave the answer of 2nd degree, and the other 2 people answered that I would neither be uncomfortable nor be. These results show that having a disabled friend is not related to knowing how to behave when talking to disabled people and being uneasy.

Do You Feel Uncomfortable When Disabled People Talk?	Frekans	Percent
Never Disturb	73	91,3
2	3	3,8
3	1	1,3
4	1	1,3
Very Uncomfortable	2	2,5
Total	80	100,0

Discomfort with the speech of the disabled

Do You Have a Disabled Friend?	Frekans	Percent
Yes	45	56,3
No	35	43,8
Total	80	100,0

Disabled friend.

Do You Have a Disabled Friend?		Total
Yes	No	
41	32	73
2	1	3
0	1	1
0	1	1
2	0	2
45	35	80

Disabled friends cross table with discomfort while people with disabilities are talking.

The answer to the question of whether people interfere with their children's having a disabled friend or not, varies. While 91.3% answered no, 8.7% answered yes and as the reason for this; Answers were given: “because my child may harm”, “he may adopt wrong habits or make imitations during the developmental stage”, “I may be nervous if he is mentally handicapped because he will harm my child, but otherwise I am afraid that my own child will harm him”, I am afraid that my child will harm him”. There are actually two implications of these answers. One is to be uneasy about the behavior of his own child to the other child, and the other is to be afraid of harming the other party.

Do you interfere with your child playing with a disabled child and making friends?

	Frekans	Percent
Yes	7	8,7
No	73	91,3
Total	80	100,0

Making friends with people with disabilities.

One of the questions about the physical environment is the frequency of encountering people with disabilities on the street. This question, which

was directed to 80 people and had 100% validity, was asked in a graded manner.

In the answer numbered from one to five, 1 means almost never and 5 means the frequency of encounters very often. Of the participants who answered the question, 48.8% gave the answer rarely, 17.5% gave the answer very often, 16.3% gave the answer of 2 degrees, 12.5% gave the answer of 3-grade medium, and 5% gave the answer of 4-grade.

How often do you come across people with disabilities in your neighborhood?

	Frekans	Percent
Rarely	39	48,8
2	13	16,3
3	10	12,5
4	4	5,0
Very often	14	17,5
Total	80	100,0

Frequency of sight impaired.

In the question about the level of satisfaction with the work of the municipality of Gostivar, the dissatisfaction was determined because the works that did not meet the expectations of the group that made up the majority. Only 3 people who answered this question, who were asked to give numbers from 1 to 5, stated that their expectations were met.

	Frekans	Percent
Not at all	54	67,5
2	13	16,3
3	10	12,5
Meets Enough	3	3,8
Total	80	100,0

Satisfaction with urbanization

A cross-tabulation was applied to determine whether satisfaction with municipal work changes depending on age.

		In your opinion, the municipality of Gostivar				Total
		Not at all	2	3	Meets Enough	
Your age?	1-15 years	6	1	1	0	8
	16-30 years	35	8	7	1	51
	31-45 years	7	3	2	1	13
	45 years and under	6	1	0	1	8
Total		54	13	10	3	80

Cross-table to determine whether satisfaction with municipal work changes depending on age.

While 2 people stated that disabled people did not experience any difficulties in accessing public spaces such as municipalities, health centers, hospitals, and post offices, 54 people stated that they had great difficulty in accessing them. 24 people gave a medium value by saying that they were neither forced nor difficult.

The age-related answers to the difficulty of accessing public spaces are shown in a cross-table, and it has been observed that people over the age of 45 have more difficulty in accessing than other age groups.

	Frekans	Percent
Much	54	67,5
2	13	16,3
3	10	12,5
4	1	1,3
Few	2	2,5
Total	80	100,0

Ease of access for disabled people in public spaces such as municipalities, health centers, hospitals, post offices

	Kamusal alanlara erişim zorluğu					Total	
	Much	2	3	4	Few		
Yo ur age	1-15 years	5	1	2	0	0	8
	16-30 years	34	10	6	1	0	51
	31-45 years	8	2	2	0	1	13
	45 years and under	7	0	0	0	1	8
Total		54	13	10	1	2	80

Cross-tabulation between Difficulty Accessing Public Spaces and age

Two different questions were included in the questionnaire in order to determine the importance of barrier-free spaces and to learn people's thoughts on the importance of implementing barrier-free space designs and to reveal whether there is a relationship between barrier-free design and participation in life. 30% of the participants stated that the barrier-free design of the city has a very high relationship with participation in life. 29 people, constituting 36.3%, stated that there is no relationship between participation in life and barrier-free design and gave 1 point to the relationship between them.

	Frekans	Percent
Not at all	29	36,3
2	12	15,0
3	9	11,3
4	6	7,5
Very Relevant	24	30,0
Total	80	100,0

The relationship between barrier-free design of the city and participation in life

In re-posing the question in a different way, the people were asked about the relationship between physical barriers such as lack of parking, transportation difficulties, and participation in social events, and they were asked to give numbers from one to five according to the importance of the relationship between them, and the score of "1" was "not important at all" and the score of "5" was "very important". It was stated to the participants that it represented the words "very important". 58.8% of the participants defined the relationship as very important and 12.5% defined it as not important at all.

	Frekans	Percent	Current Percent	Cumulative Percentage
It Doesn't Matter	10	12,5	12,5	12,5
2	7	8,8	8,8	21,3
3	7	8,8	8,8	30,0
4	9	11,3	11,3	41,3
It is very important	47	58,8	58,8	100,0
Total	80	100,0	100,0	

The relationship between physical disabilities and participation in social events

After the definition of these relations and the physical problems encountered on the street, it was thought that it would be appropriate to ask people to state their spatial arrangement wishes regarding urbanization with an open-ended question. At the same time, it has been determined that the answers given have the same content as the physical problems that people face on the street. According to this result, the desired spatial arrangements are; parking lot, wide and regular pavement, park and green area, bicycle path and walking tracks, escalators and elevators (in pedestrian crossings), paving stones, pedestrian ways and stairs in international standards, children's playground, sports and activity areas, cultural center, artistic are places.

When asked whether you are aware of the regulations regarding the built environment for the disabled in your environment, 48.8% of the participants stated that they were not aware at all, and 16.3% were very aware.

		Frequency	Percent
Valid	None	39	48,8
	2	12	15,0
	3	13	16,3
	4	3	3,8
	Much	13	16,3
	Total	80	100,0

Awareness of the regulations regarding the built environment for the disabled.

When asked what the paving stones with a different yellow surface mean, the majority of the participants chose 77.5% as yes, while 22.5% marked that they did not know.

	Frekans	Percent
Yes	62	77,5
No	18	22,5
Total	80	100,0

Yellow paving stones

In the question of what are the problems faced by the disabled in daily life, subjects such as Education, Health, Transportation, Activity, and Work were added among the choices. While 50% of the participants agreed on Transportation, 17.5% chose Activity, 13.8% Education, 10% Work and 8.8% Health.

Problems faced by disabled people in daily life

	Frequence	Percent	Current Percent	Cumulative Percentage
Education	11	13,8	13,8	13,8
Health	7	8,8	8,8	22,5
Transport	40	50,0	50,0	72,5
Activity	14	17,5	17,5	90,0
Study	8	10,0	10,0	100,0
Total	80	100,0	100,0	

Problems Encountered by the Disabled

BRAKYA GINOSKI ROAD – GOSTIVAR

It is one of the busiest roads of Gostivar. It is used extensively.



Brakya Ginoski Road



Brakya Ginoski Road View

Obstacles

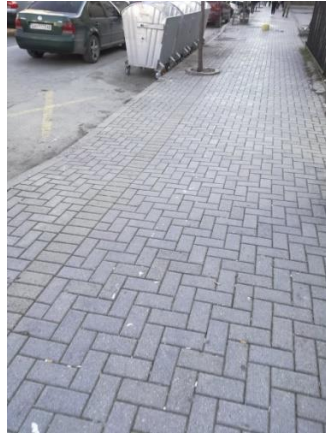
Since the road is crowded at certain times of the day, it creates difficulties for wheelchair users, especially since there is not enough space on the sidewalk at the junction of the square with the main road. In addition, the reason for this situation, which is a great danger for children, is that there is no limiter on the side of the main road. Trees, garbage cans and lighting on the sidewalks are obstacles.



Obstacles on the Brakya Ginoski Road (Trash, Tree, etc.)

Roads

Since this walkway forms a flat surface and is not wide enough (trash cans, lighting, etc.), it creates an obstacle and is not suitable for everyone. Since no tactile surface is used on the floor, it is not suitable for individuals with low or no vision.



Sidewalk

Sidewalk and Stair Ramps

Stair ramps in some parts of the road are accessible and comply with Standards. However, in some parts of the road, more than one of the pavement ramps is not in accordance with the standards. Since the slope of the ramps is not correct and there is a certain height, even if it is small, at the entrance to the ramp, they are not suitable for the disabled, especially the disabled people with wheelchairs. Yellow surface platforms used for the disabled are not used in all of the sidewalks.



Sidewalks and ramps

Pedestrian Crossings

Brakya Ginoski road is one of the busiest roads in Gostivar. There is no audible warning system in any of the pedestrian crossings around. Unfortunately, there are no guiding strips at any crosswalk for the visually impaired. As seen in the picture, there is no audible warning system and ramped pavement at the pedestrian crossing, and there is an obstacle on the pavement in front of the pedestrian crossing.





Pedestrian Crossings

As seen in the picture, there is no audible warning system or yellow surface platform for the disabled at pedestrian crossings.



Crosswalk

Parking lots

There is a municipal parking lot on Brakya Ginoski Road. None of these car parks have reserved parking spaces for the disabled.



Car park

CONCLUSION AND RECOMMENDATIONS

The fact that people with disabilities are seen as in need of care causes them to stay away from society. Therefore, in order to reintegrate disabled people into society, it is necessary to facilitate their lives, in other words, their accessibility (Selimi et al. 2018). Today, standards have been established to ensure that the environment we live in is accessible and usable under equal conditions for everyone (the disabled, the elderly, children, pregnant women, etc.).

In the study, first of all, it was examined under the headings (roads, pavement ramps and pedestrian crossings) on Gostivar. In the continuation of the study, the problems that prevent access were also identified at the following points: problems related to the surface; problems related to urban equipment; problems related to pedestrian traffic relations and problems due to natural and other obstacles.

In the research, Brakya Ginoski road in Gostivar was examined and accessibility was partially provided for everyone, especially for the disabled, but when looking at the roads in Gostivar in general, the accessibility for the disabled is very limited. The main reason for this is that the municipalities or the government have little work on this issue and the laws do not clarify the issue. In other words, there is no law regarding

the accessibility of the disabled for Urban Design. It is a positive situation that there are no very large obstacles or protruding obstacles on the road walking path examined within the scope of the research.

The widths and slopes of both pavement ramps and stair ramps are appropriate on the investigated road. Generally, there are audible warning devices on the Brakya Ginoski road and in the pedestrian crossings in its vicinity. However, there are no buttons required at traffic lights to stop the traffic.

Vehicles parked at pedestrian crossings and in front of pavement ramps were observed on the investigated road, or commercial activities were located on the pedestrian road in such a way as to prevent the passage. This shows that the society should be made aware of accessibility in general. One of the most important points of the study is that everyone in the construction and design sector, especially design students, and municipal employees should be informed about design and accessibility. If you work on this issue in the designs at the beginning, a design can be created for everyone at a very low cost, but later solutions require much more cost.

As a result of our survey, the answers given by the citizens are as follows: In the question of what are the problems faced by the disabled in daily life, subjects such as Education, Health, Transportation, Activity, and Work were added among the choices. While 50% of the participants agreed on Transportation, 17.5% chose Activity, 13.8% Education, 10% Work and 8.8% Health. It means that citizens agreed when disabled people had the most difficulty in transportation.

While 2 people stated that disabled people did not experience any difficulties in accessing public spaces such as municipalities, health centers, hospitals, and post offices, 54 people stated that they had great difficulty in accessing them. 24 people gave a medium value by saying that they were neither forced nor difficult. It has been stated by the citizens that they have a very difficult time accessing public spaces for the disabled.

The age-related answers to the difficulty of accessing public spaces are shown in a cross-table, and it has been observed that people over the age of 45 have more difficulty in accessing than other age groups.

In the question about the level of satisfaction with the work of the municipality of Gostivar, the dissatisfaction was determined because the

works that did not meet the expectations of the group that made up the majority. Only 3 people stated that their expectations were met. In the research, there are no platforms with different yellow surfaces for the disabled on the sidewalks on the Brakya Ginoski Road. Platforms with yellow different surfaces play an important role especially for the visually impaired.

REFERENCES

Burcu, E. (2007). Türkiye’de Özürlü Birey Olma, Temel Sosyolojik Özellikleri ve Sorunları Üzerine Bir Araştırma, Devlet Planlama Teşkilatı ve Hacettepe Üniversitesi, Ankara. (01.02.2019)

Burcu, E. (2008). Türkiye’deki Engelli Bireylere İlişkin Kültürel Tanımlamalar: Ankara Örneği, Ankara. (01.02.2019)

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., Demirel, F. (2008). Bilimsel Araştırma Yöntemleri, Pegem Akademi, Ankara. (04.02.2019)

Casas, I. (2007). Social Exclusion and the Disabled: An Accessibility Approach, The Professional Geographer, vol. 59, no. 4. (04.02.2019)

Chamberlain, L. (2007). Design for Everyone, Disabled or Not, The New York Times, January 7, alındığı tarih: 06.02.2019, adres: <http://go.galegroup.com/ps/i.do?id=GALE%7CA156930673&v=2.1&u=teknik&it=r&p=EAIM&sw=w>.

Charles, A., Thomas, H. (2007). Deafness and Disability- Forgotten Components of Environmental Justice: Illustrated by the Case of Local Agenda 21 in South Wales, Local Environment: The International Journal of Justice and Sustainability, 12:3, 209-221. (04.02.2019)

Clarkson, J., Coleman, R., Keates, S., Lebbon, C. (2003). Inclusive Design: design for the whole population, London. (04.02.2019)

Cooper, M. (1999). The Australian Disability Rights Movement Lives, *Disability & Society*, vol. 14, no. 2, 217-226. (04.02.2019)

Disability Act. (2005). USA. (erişim tarihi: (04.02.2019)

Donlon, J. G. (2011). Accessibility, the Americans with Disability Act, and the Natural Environment as a Tourist Resource, *Anatolia: An International Journal of Tourism and Hospitality Research*, 11:2, 101-

Deniz B., “Kentsel kamusal mekanlar bağlamında Centennial Olimpiyat Parkı’nın irdelenmesi”, *Adnan Menderes Üniversitesi Ziraat Fakültesi Dergisi*, Aydın, Cilt:2, Sayı:1, s.5-10, (erişim tarihi: 12.02.2019)

Selimi, A., Milošević, M., Saračević, M. (2018) AHP – TOPSIS Model as a Mathematical Support in the Selection of Project from Aspect of Mobility – Case Study. *Journal of Applied Mathematics and Computation*, 2(6), 257-265. DOI : [10.26855/jamc.2018.06.004](https://doi.org/10.26855/jamc.2018.06.004)

Fiziksel Engelliler Vakfı, Mimar Sinan Üniversitesi ve İstanbul Büyükşehir Belediyesi, “Fiziksel Çevresinin Engelli Gereksinimleri Doğrultusunda Uyumlandırılması Amaçlı Pilot Proje Mecidiyeköy-Taksim Alan Çalışması”, (erişim tarihi: 10.02.2019)

Milošević, A., Milošević, M., Milošević, D., & Selimi, A. (2016, April). Ahp multi-criteria method for sustainable development in construction. In *Proceeding 4th International Conference: Contemporary Achievements in Civil Engineering* (pp. 929-938).

<https://en.wikipedia.org/wiki/Gostivar> (erişim tarihi: 12.02.2019)