

Assessing Accessibility and Inclusion:

A Neighborhood Study Surrounding Drasi Gia to Kati Allo



Aaron Green, John McDermott, Samantha Scampoli, Hailey Zembrzuski
2026 Interactive Qualifying Project / Thessaloniki, Greece



ΔΡΑΣΗ ΓΙΑ
ΤΟ ΚΑΤΙ ΑΛΛΟ

Assessing Accessibility and Inclusion: A Neighborhood Study Surrounding Drasi Gia to Kati Allo

Presented By:

Aaron Green

John McDermott

Samantha Scampoli

Hailey Zembrzski

Date:

May 6, 2026

Report Submitted to:

Worcester Polytechnic Institute

Professor Melissa Butler

Professor Robert Kinicki

Drasi Gia to Kati Allo

This report represents work of WPI undergraduate students submitted to the faculty as evidence of a degree requirement. WPI routinely publishes these reports on its website without editorial or peer review. For more information about the projects program at WPI, see <http://www.wpi.edu/Academics/Projects>



WPI



Table of Authorship

Chapter	Primary Author(s)	Primary Editor(s)
Abstract	Hailey	Sammy
Executive Summary	All	Hailey
Acknowledgements	Hailey	John
Meet the Team	Hailey	John
1.0 – Introduction	All	All
2.0 – Background	Sammy	John
2.1 – Stigma Surrounding Disability	Hailey	John
2.2 – Physical Disability	Sammy	John
2.3 – Cognitive Disability	John	Sammy
2.4 – Urban Accessibility	John	Sammy
2.5 – Navigation and Stress Risk in Urban Environments	John	Hailey
2.6. – Neighborhood Mapping for Accessibility	Sammy	Aaron
2.7 – Drasi Gia to Kati Allo	Sammy	Hailey
3.0 – Methodology	Hailey	John
3.1 – Observations	Sammy	Hailey
3.2 – Surveys	John	Sammy
3.3 – Interviews	Aaron	Sammy
3.4 – Pamphlet Evaluation Assessment	John	Sammy
4.0 – Results	Hailey	John
4.1 – Barriers in Communication and Interactions	John/Sammy	John
4.2 – Barriers in the Built Environment	John/Sammy	Hailey
4.3 – Social Behavioral Barriers	John/Sammy	Sammy
4.4 – Discussion	Aaron	Sammy
5.0 – Design Considerations	Sammy	Hailey
5.1 – Preliminary Pamphlet Design	Sammy	Hailey
5.2 – Improved Pamphlet Design	Sammy	Hailey
5.3 – Pamphlet Evaluations	John	Hailey
5.4 – Final Pamphlet Designs	Sammy	Hailey
6.0 – Limitations	John	Hailey
6.1 – Data Collection	John	Sammy
6.2 – Language Barrier	John	Sammy
6.3 – Final Deliverables	John	Sammy
7.0 – Reflections	Hailey	John

Abstract

Individuals with disabilities face barriers that shape how they navigate their communities. In partnership with Drasi Gia to Kati Allo (SFA), this project identified barriers of accessibility and inclusion while mapping accessible routes to frequented locations in Thessaloniki, Greece. The goal of this project was to conduct a neighborhood assessment to address a lack of inclusivity, accessibility, and belonging for individuals with disabilities. The team conducted observations, surveys, and interviews to inform our six pamphlets that map the most accessible route to frequented locations. These pamphlets that include destination name, image, route difficulty, and directions will help SFA enhance inclusivity and raise awareness of accessibility needs in their community.

Executive Summary

Introduction and Background

Across the European Union, approximately 87 million people live with disabilities, including 18.2% of Greece's population, yet many continue to face physical, cognitive, and social barriers that limit their independence and societal engagement (Zissi, 2007).

Historically, Greece has stigmatized disability, as longstanding cultural beliefs have contributed to social exclusion and negative social attitudes (Rodi, 2020). These stigmas persist today, influencing infrastructure development, public awareness, and opportunities for inclusion. Accessibility challenges extend beyond mobility impairments and include cognitive and communication barriers such as poor signage, sensory overload, lack of predictable environments, and insufficient alternative communication tools (Boland, 2023).

By grounding this project in the biopsychosocial model, we, considered biological, psychological, and social factors as interconnected components shaping disability experiences. This perspective emphasizes that accessibility requires both physical infrastructure improvements and societal attitude changes (Hardie, 2021).

Urban environments often present significant risks for individuals with disabilities. Broken sidewalks, inaccessible crosswalks, missing curb ramps, unclear signage, overcrowding, and limited public awareness create unsafe and stressful navigation conditions. Research from European cities, including Athens, demonstrates that inaccessible infrastructure reduces access to essential services such as healthcare and public transportation while increasing frustration, social isolation, and safety risks.

This project addresses accessibility, inclusivity, and community belonging for individuals with disabilities in Thessaloniki, Greece, particularly in the neighborhood surrounding Drasi Gia to Kati Allo (SFA), a nonprofit creative center serving children, teenagers, and adults with disabilities. This team partnered with SFA to systematically assess neighborhood accessibility around the center and support participants' independent community engagement. The project was completed through the following three objectives:

1. Identifying physical and communication barriers in the surrounding neighborhood.
2. Investigating alternative communication methods to enhance participant independence.

3. Developing informative materials outlining accessible routes, businesses, and inclusivity resources for participants, caregivers, and the local community.

Neighborhood accessibility assessments examined physical infrastructure such as sidewalks, curb ramps, crossings, and obstacles, while also considering cognitive accessibility factors including signage clarity, sensory stressors, predictability, and communication supports. Existing mapping technologies demonstrate the potential for accessibility-focused tools to improve navigation, but limited research exists for smaller Thessaloniki neighborhood.

Methodology

The team utilized observations to understand the daily experiences of individuals with disabilities. We observed participant workshops at the center such as an obstacle course, a music session, and other activities like walks to the park and the coffee shop. During these observations, the team documented areas of high pedestrian congestion, high noise levels, and areas with significant distractions. These observations helped the team gain a better understanding of the relationship participants had with their caregivers, how participants communicated, and the ways participants responded to accessibility barriers.

The team also conducted neighborhood assessments in the area surrounding the SFA center to assess real-world accessibility conditions of the built environment. Our sponsor provided us with a list of locations that participants visit frequently, which guided our observation routes and ensured their relevance. The team walked several different routes to each location, simultaneously taking pictures and keeping count of different barriers. The team organized the pictures in an observation sheet by location, date, time, and obstacle observed. These observations allowed the team to identify accessible routes surrounding the center which aided in the creation of our informative materials.

The team employed a neighborhood survey to four caregivers, one employee, and the director of the SFA center to gain additional perspectives on physical and communicative barriers. The team created a paper-based survey due to limited internet access, and our sponsor translated the survey into Greek and distributed it throughout the center. The survey consisted of three

open-ended and three closed-form questions about common accessibility obstacles in the area. The team analyzed responses to identify physical and communication barriers in the neighborhood surrounding the SFA center. These findings informed the content of the pamphlet which supports caregivers and acts as an alternative activity for participants teaching them navigational and recognition skills.

The group conducted semi-structured interviews to better understand communication barriers and inform important features for the design of pamphlets. The team interviewed two staff members simultaneously, asking six open-ended questions addressing the built environment, communication barriers, and existing informational materials. The team analyzed the transcribed interview data by highlighting common themes and incorporated ideas for the pamphlet in a manner that preserved the simplicity, clarity, and informational value that the staff desired.

The team designed a pamphlet through an iterative process with staff and conducted an evaluation survey to gain feedback from SFA staff on the informative materials the team created. Similarly to the initial survey the team created a paper-based survey, and our sponsor translated it into Greek and distributed it throughout the center. The survey had 8 questions, with a combination of multiple choice, 10-point Likert Scale, and open-ended questions. Likert Scale questions evaluated pamphlets visuals, while open-ended questions asked staff for recommendations on improvements. We used the information obtained to produce a practical resource that addresses inclusivity and accessibility while meeting stakeholder standards.

Results and Analysis

We compiled the data collected through our observations, interviews, and surveys and noticed several commonalities. In observing the participants during workshops at the center, we saw how participants overcome barriers in communication and interactions. In the workshops, the team discovered that communication between caregivers and participants was primarily via physical touch, including guiding their movements and leading by example. The team also recognized the use of positive reinforcement, in the form of clapping and celebrating upon the completion of an activity. These findings influenced the routes we chose for our final deliverable, ensuring that we were choosing routes wide enough for side-by-side travel of participants and caregivers and using positive cues for our instructions.

The team distributed a paper-based survey to the employees and caregivers of the center hoping to gain

insight into the accessibility limitation within the neighborhood. The survey asked respondents to rank the frequently visited locations based on how often they are visited. The survey noted that the top locations frequented by the participants include the Nikos Papazoglou Park, the playground near The Fifth Beatle, The Fifth Beatle, and Coffee Story.

The team identified numerous accessibility barriers throughout the neighborhood, many of which stemmed from deficiencies in the built environment. Sidewalks were extremely narrow and often interrupted by abrupt level changes, unexpected steps, or obstructions such as trees located directly in the walking path (Figure 0.1). These conditions significantly limit maneuverability for wheelchair users and people with visual impairments, in many cases rendering entire streets inaccessible. In addition to restricting mobility, narrow and obstructed sidewalks prevent side-by-side travel, which is especially important for individuals with cognitive disabilities who may rely on physical touch for communication and safety.



Figure 0.1: Tree in the middle of the sidewalk on the corner of Michail Chourmouzi and Agrianon

The team also encountered numerous crossings lacking curb ramps or tactile paving, posing serious safety risks. Individuals with physical disabilities may be unable to safely navigate curbs, while those with visual impairments depend on tactile indicators to identify safe crossing points. Similarly, several sidewalks terminated abruptly without warning, as shown in Figure 0.2. These sudden discontinuities create hazardous conditions,

forcing individuals with physical disabilities into the street and increasing their exposure to traffic. For individuals with cognitive disabilities, these unexpected interruptions may require rerouting, which can lead to confusion, disorientation, and difficulty navigating the



Figure 0.2: Sidewalk with Step and Blockage on Vithynias Street (near SFA center)

environment. Survey and interview responses confirmed that these different barriers are common occurrences and major problems that cause difficulty in navigating throughout the community.

The team also witnessed the deterioration of the built environment. We noticed several instances of broken sidewalk tiles, typically in close proximity to one another, and crumbling sidewalks (Figure 0.3). Broken tiles create localized, abrupt obstacles that may stop movement or require assistance, while crumbling



Figure 0.3: Cluster of Broken Sidewalk Tiles on Michail Chourmouz

sidewalks create a continuous unstable surface that can lead to fatigue, loss of balance, or difficulty maintaining a steady path. For wheelchair users, both these conditions can make navigation difficult and, in some cases, impassable, while also posing tripping and stability risks for other individuals with mobility impairments. Additionally, navigating these environments requires constant attention which can yield physical and cognitive strain.

We also found that barriers that inhibit people with disabilities often stem from society, social behaviors, and an overall lack of awareness surrounding accessibility. We found several crowd and vehicular incidents including blocked sidewalks, obstructed ramps, and pedestrian congestion which can temporarily make even the most accessible spaces unusable (Figure 0.4). These barriers force individuals to either turn around or enter the street, adding unnecessary safety risks. These situations are unfortunately common and unenforced and result from a lack of awareness about disability and accessibility in these communities. Survey and interview respondents also identified social barriers such as “strange looks from people” and “people’s behavior” as common experiences when accompanying participants in public.



Figure 0.4: Car Blocking Curb Ramp and Tactile Slabs on the Corner of Distomou and Papafi

We applied our findings to every aspect of pamphlet design. We used physical barrier data to select routes, cognitive accessibility findings to simplify layout, communication observations to guide visual design, and stakeholder feedback to refine usability. By combining these elements, we created pamphlets that support independent navigation and improve user confidence.

Design Considerations

Using data from our observations, interviews, and surveys, along with ongoing feedback from SFA staff, we continuously adjusted the designs to better meet the needs of both participants and caregivers. While our initial idea focused on creating one comprehensive pamphlet with multiple routes, feedback led us to instead develop 5 individual pamphlets for specific destinations with simpler and more user-friendly layouts. These locations included the Nikos Papazoglou Park (Figure 0.5 and Figure 0.6), the playground next to the Fifth Beatle, the Fifth Beatle, the Coffee Story, and the library. As we revised the designs, we focused on making the pamphlets clear and easy to follow by including simple maps, step-by-step directions, and recognizable landmarks. We also added interactive elements like matching landmarks and color-coded cues to make the pamphlets more engaging and supportive for individuals with cognitive disabilities. Based on additional feedback, we incorporated features such as route difficulty levels, street names, and clearer visual indicators to improve overall usability. The final pamphlets emphasize simplicity, accessibility, and engagement, providing participants with a practical tool to help them navigate their community more independently and safely.

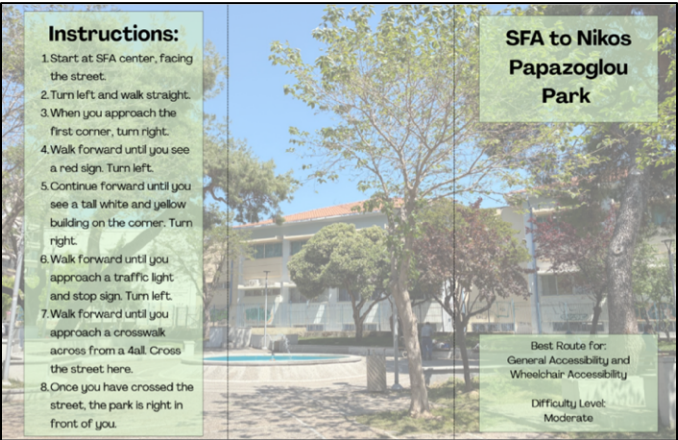


Figure 0.5: Outside cover of pamphlet to Nikos Papazoglou Park



Figure 0.6: Inside cover of pamphlet to Nikos Papazoglou Park

We also created an awareness pamphlet (Figure 0.7 and Figure 0.8) to promote the SFA center, educate the community, and help to create more general accessibility of the surrounding environment. The pamphlet included the following sections; a title of Creating a More Accessible Thessaloniki, Why Accessibility Matters, a QR code to the Drasi Gia to Kati Allo website along with a map that shows where the center is located, Who We Are, What Does Accessibility Look Like, and Simple Ways to Make a Difference. We handed out this pamphlet to the local community. The team hoped the pamphlet would change people perspectives and help make the community more accessible for people with disabilities.

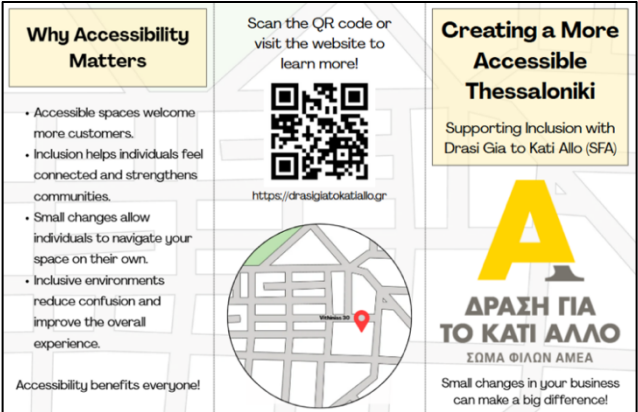


Figure 0.7: Outside cover of awareness pamphlet

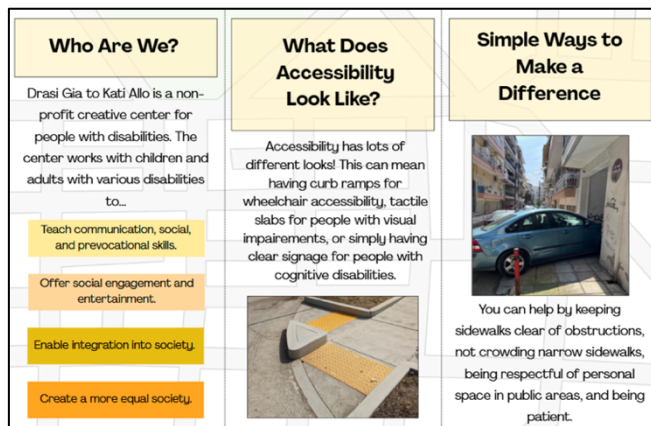


Figure 0.8: Inside cover of awareness pamphlet

Conclusion

Within the process of mapping, analyzing, and evaluating the SFA neighborhood the team identified persistent issues in the built environment that create both social and physical barriers, making the neighborhood difficult to navigate. While changing the built environment is out of the scope of this project, there was an emphasis on the need for identifying accessible

routes. The team provided the SFA center with pamphlets of mapped routes to frequently visited locations. Recognizing it was unrealistic to classify these routes as fully accessible, due to the inaccessibility of the built environment, we identified routes with the highest level of accessibility and reflected the difficulty of each route within the pamphlets.

The team hopes that the pamphlets will guide participants safely from the center to the most frequented locations and become an engaging activity that strengthens connections between participants and caregivers while fostering self-confidence and independence for participants navigating their community. By identifying barriers and promoting more accessible pathways, the project contributes to empowering individuals with disabilities, enhancing community participation, and raising awareness among local businesses and residents. Ultimately, the materials support caregivers, promote safer navigation, and encourage more inclusive practices, contributing to a broader effort to reduce social exclusion, foster independence, and create a more equitable urban environment for individuals with disabilities in Thessaloniki.

Executive Summary Bibliography

Zissi, Anastasia & Rontos, Costas & Papageorgiou, Dimitris & Pierrakou, Christine & Chtouris, Sotirios.

(2007). Greek Employers' Attitudes to Employing People with Disabilities: Effects of the Type of Disability. *Scandinavian Journal of Disability Research*. 9. 14-25. 10.1080/15017410600973234.

Boland, G., & Guerin, S. (2023). Supporting Social Inclusion in Neighborhoods of Adults with Intellectual Disabilities: Service Providers' Practice Experiences. *Journal of intellectual disabilities* ., 27(2), 291–314. <https://doi.org/10.1177/17446295221085479>

Hardie, M. (2021, October 10). *Three aspects of health and healing: The biopsychosocial model in medicine*. Department of Surgery. <https://surgery.wustl.edu/three-aspects-of-health-and-healing-the-biopsychosocial-model/>

Rodi, A. P. (2020). (De)signs for dignity: Towards an Enabling Environment in Athens, Greece. *Transactions of the Association of European Schools of Planning*, 4(1), 59-79. <https://doi.org/10.24306/TrAESOP.2020.01.006>

Acknowledgements

We would like to express our deepest appreciation to our sponsor, Drasi Gia to Kati Allo, specifically Evangelia Misiaka, for the continuous support and collaboration. This project would not be possible without the help of Evangelia and the Drasi Gia to Kati Allo community.

We would also like to thank our research assistants Angeliki Anastasopoulou and Katerina Tsiri for all their continuous help in the translation process of our project.

Lastly, we would like to thank our advisors, Professors Melissa Butler and Robert Kinicki, for their continuous support and dedication helping us through the interactive qualifying project process.



Figure I: Project team at the SFA center (left to right): Evangelia Misiaka, Aaron Green, John McDermott, Samantha Scampoli, and Hailey Zembrzusi

Meet the Team



Aaron Green

Aerospace Engineering / Newton, MA.



John McDermott

Mechanical Engineering / Saugus, MA.



Samantha Scampoli

Architectural Engineering / Needham, MA.



Hailey Zembrzuski

Biomedical Engineering / Southington, CT.

Table of Contents

Table of Authorship	ii
Abstract.....	iii
Executive Summary	iv
Acknowledgements.....	v
Meet the Team.....	vi
List of Figures.....	viii
List of Tables.....	x
1.0 – Introduction.....	1
2.0 – Background.....	3
2.1 – Stigma Surrounding Disability	3
2.2 – Physical Disability	6
2.3 – Cognitive Disability	6
2.4 – Navigation Stress and Risk in Urban Environments	7
2.5 – Neighborhood Assessment for Accessibility	11
2.6 – Drasi Gia to Kati Allo	14
3.0 – Methodology	16
3.1 – Observations	18
3.2 – Neighborhood Survey	23
3.3 – Staff Interviews.....	24
3.4 – Pamphlet Evaluation Assessment	25
4.0 – Results.....	26
4.1 – Overcoming Barriers in Communication and Interactions	26
4.2 – Barriers in the Built Environment.....	27
4.3 – Social Behavioral Barriers	37
4.4 – Discussion.....	41
5.0 – Pamphlet Design Considerations and Evaluations	44
5.1 – Preliminary Pamphlet Design	44
5.2 – Improved Pamphlet Design	49
5.3 – Pamphlet Evaluations	52
5.4 – Final Pamphlet Design	54
6.0 – Project Limitations.....	61
6.1 – Data Collection Limits.....	61
6.2 – Language Barrier	61
6.3 – Final Deliverable.....	62
7.0 – Conclusion	63
Bibliography	64
Appendix A – Workshop Observation Field Notes.....	71
Appendix B – Sample Observation Sheet.....	75
Appendix C – Neighborhood Survey.....	76
Appendix D – Neighborhood Survey in Greek	78
Appendix E – Open Ended Survey Results	80
Appendix F – Staff Interviews.....	81
Appendix G – Staff Interview Transcription	82
Appendix H – Pamphlet Feedback Survey	88
Appendix I – Observation Analysis Slideshow	92
Appendix J – Obstacle Count Observation Sheet.....	93
Appendix K – Open Ended Feedback Survey Results	94
Appendix L – Final English Pamphlets	96
Appendix M – Final Greek Pamphlets	97

List of Figures

Figure 0.1: Tree in the middle of the sidewalk on the corner of Michail Chourmouzi and Agrianon	v
Figure 0.2: Sidewalk with Step and Blockage on Vithynias Street (near SFA center)	vi
Figure 0.4: Car Blocking Curb Ramp and Tactile Slabs on the Corner of Distomou and Papafi	vi
Figure 0.3: Cluster of Broken Sidewalk Tiles on Michail Chourmouz	vi
Figure 0.5: Outside cover of pamphlet to Nikos Papazoglou Park	vii
Figure 0.6: Inside cover of pamphlet to Nikos Papazoglou Park	vii
Figure 0.7: Outside cover of awareness pamphlet	vii
Figure 0.8: Inside cover of awareness pamphlet.....	viii
Figure I: Project team at the SFA center (left to right): Evangelia Misiaka, Aaron Green, John McDermott, Samantha Scampoli, and Hailey Zembrzusi	v
Figure 2.1: Biopsychosocial (BPS) Model.....	5
Figure 2.2: Assessing a crosswalk and curb on Project Sidewalk software.	13
Figure 3.1: Flowchart of Project Details	17
Figure 3.2: Map of Frequently Visited Locations Surrounding the SFA Center.....	18
Figure 4.1: Locations with Accessibility Barriers	28
Figure 4.2: Locations Participants and Staff Visit Frequently.....	29
Figure 4.3: Physical Barriers in SFA Neighborhood	30
Figure 4.4: Sidewalk with Step and Blockage on Vithynias Street (near SFA center)	31
Figure 4.5: Tree in the Middle of Sidewalk on the Corner of Michail Chourmouzi and Agrianon	32
Figure 4.6: View of Narrow Sidewalk on Cheiokratous from Anatolikos Thrakis.....	33
Figure 4.7: Missing Curb Ramp and Tactile Slab on the Corner of Cheiokratous and Vithynias	34
Figure 4.8: No Crosswalk and Tactile Slabs at the Intersection of Markou Botsari and Ionias	34
Figure 4.9: Cluster of Broken Sidewalk Tiles on Michail Chourmouzi	36
Figure 4.10: Crumbling Sidewalk and Curb on Thessaloniki – Kato Toumpa	36
Figure 4.11: Car Blocking Entire Sidewalk at the Intersection of Sinopis/Vithynias.....	38
Figure 4.12: Car Blocking Curb Ramp and Tactile Slabs on the Corner of Distomou and Papafi	39
Figure 4.13: Store Displays Extending onto Sidewalk on Anatolikos Thrakis.....	40
Figure 5.1: Preliminary Pamphlet Design – Created Prior to Arrival	45
Figure 5.2: Preliminary Pamphlet Design Version 1	46
Figure 5.3: SFA Map Design Version 1	47
Figure 5.4: SFA Map Design Version 2	47
Figure 5.5: Preliminary SFA Pamphlet Design Version 2	48
Figure 5.6: SFA Pamphlet Design Version 3	49
Figure 5.7: SFA Pamphlet Design Version 4 - Exterior Page.....	50
Figure 5.8: SFA Pamphlet Design Version 4 - Interior Page.....	51
Figure 5.9: SFA Pamphlet Design Version 5 – Interior Page	51
Figure 5.10: Pamphlet Size Staff Responses	53
Figure 5.11: Different Pamphlet Formats (Triboro Printing, n.d.).....	54
Figure 5.12: Final Pamphlet Exterior Page	55
Figure 5.13: Final Pamphlet Interior Page.....	56
Figure 5.14: Final Greek Pamphlet for the Nikos Papazoglou Park (Exterior)	57
Figure 5.15: Final Greek Pamphlet for the Nikos Papazoglou Park (Interior)	57
Figure 5.16: Awareness Pamphlet (Exterior).....	59
Figure 5.17: Awareness Pamphlet (Interior).....	59
Figure 5.18: Final Awareness Pamphlet in Greek (Exterior).....	60

<i>Figure 5.19: Final Awareness Pamphlet in Greek (Interior)</i>	60
<i>Figure A1: Field Notes from In Center Workshop (March 19th)</i>	71
<i>Figure A2: Field Notes from In Center Workshop (March 19th)</i>	72
<i>Figure B1: Sample Observation Sheet with Photo on Left and Descriptions on Right</i>	75
<i>Figure E1: Open Ended Survey Results with Overarching Themes</i>	80

List of Tables

Table 2.1: Opportunity Accessibility Index for Travelers (Mitropoulos et al., 2023, p. 11)..... 11

Table 3.1: List of Frequented Locations 22

1.0 – Introduction

Imagine someone walking through a city, but they cannot safely cross the street, have a conversation, or even order from a menu. An inaccessible built environment and negative societal views of individuals with disabilities leave those affected with fewer resources, connections, and less engagement in society (Desai et al., 2024). This is a common reality for 87 million people in the European Union living with a disability, including in Greece, where 18.2% of the country's population has a disability (Edwards, 2025; European Commission, n.d., Zissi, 2007). Disabilities are not a uniform experience; they vary depending on the type of disability, individual abilities, and the surrounding environments. While each person has unique strengths, many individuals with disabilities face challenges such as inaccessible infrastructure, unclear signage, and negative attitudes (Zaromatidis, 1999).

In Thessaloniki, Greece there is limited research on accessibility for those with physical or cognitive impairments, specifically in smaller, quieter neighborhoods. Inclusion for people with disabilities depends on their ability to move safely and independently, access businesses, and engage in the community without judgment (Boland, 2023). Many inclusivity challenges remain unaddressed, such as broken sidewalks, poor signage, and missing curb ramps, leaving individuals secluded from society. Accessibility assessments, which evaluate and identify barriers, are essential for highlighting areas in Thessaloniki that remain inaccessible to people with disabilities.

The team collaborated with Drasi Gia to Kati Allo, a nonprofit, creative center for individuals with disabilities. The goal of this project was to conduct neighborhood assessments to help Drasi Gia to Kati Allo (SFA) address the lack of accessibility, inclusivity, and belonging

for individuals with disabilities. Our team completed this project goal through the following objectives:

1. Identifying physical obstacles and communication barriers in the neighborhood surrounding the center for individuals with disabilities.
2. Investigating alternative communication methods for participants of the center to promote independence to enhance community engagement.
3. Creating informative materials outlining general accessibility and inclusivity surrounding the SFA center for all participants and the local community.

Through this work, we aimed to create informative materials that identify barriers and highlight accessible routes to local businesses to help caregivers aid individuals with disabilities navigate and engage in their communities in a meaningful way. We looked to raise awareness about disability, accessibility, and inclusivity in the radius around the SFA center.

Through our research, two major themes emerged and shaped the outcome of our project: limitations within the built environment and the barriers caused by human behavior. These results informed the content and development of our 6 accessibility pamphlets, including our awareness pamphlet. Specifically, the team incorporated concise instructions, a matching element, and a specific selection of locations based on staff feedback. We hope the pamphlets will become an engaging activity for participants of the center and promote independence and self-confidence.

2.0 – Background

This chapter discusses the historical stigmas surrounding disability. The chapter then moves on to introduce different types of disabilities, as well as urban accessibility, navigation stress, and risks. The chapter also explores mapping for people with disabilities, which is the overarching theme of the project, and finally ends with an introduction to the sponsoring organization.

2.1 – Stigma Surrounding Disability

Since ancient times, Greek society has viewed disability as a disgrace, a curse from the gods, and a form of payback for committing sin. This kind of moral judgment historically excluded individuals with disabilities and labeled them as outcasts (Rodi, 2020, p.63). This longstanding judgement continues to have a strong presence in the Greek community. As a result, society treats people with disabilities with stigma and alienation practices that are morally inappropriate and unjust.

Culture often shapes attitudes towards individuals with disabilities. Zaromatidis (1999) found that Greek Americans who grew up in the United States with Greek parents and who currently live in the US, had more positive attitudes towards individuals with disabilities than individuals raised in Greece. According to a 2024 study conducted by Tilganga Institute of Ophthalmology, Kathmandu stated that disability stigma is amongst the most persistent and complex barriers limiting people with disabilities. This causes restrictions such as the lack of enjoying societal rights and opportunities. Although scores varied significantly in relation to disability type, caste and ethnicity, education, occupation, and household wealth, over 56% of respondents with disabilities reported participation restriction while another 38% reported severe or extreme restriction (Devkota et al., 2024). These findings demonstrate how stigma creates

social exclusion and negatively impacts disabled individuals' abilities to navigate public spaces, access businesses, and engage fully with their communities.

The impact of social stigmas is just as present today as it was thousands of years ago. It shapes how individuals with disabilities experience their environment. In Thessaloniki specifically, these deeply rooted cultural and historical beliefs continue to shape social interactions and infrastructure, creating barriers that limit accessibility and community engagement.

2.1.1 – Biopsychosocial Model of Health and Disease

Social scientists have historically relied on three models to understand the behavior and health of humans: biological, psychological, and social. Each model focuses on different components of human behavior and health (Hardie, 2021).

In Figure 2.1, the biological model explains the body's relationship with disease and health as influenced by physical factors within the body. This perspective asserts that mental conditions are rooted in the body's biology, and that changes or abnormalities in the physical system can directly impact how a person thinks, feels, and behaves. When thinking of physical and cognitive disabilities, the biological model connects the physical and physiological aspects of a person to their overall health and wellness.

The psychological model represents the aspects of mental and emotional processes that influence behavior. This model examines thoughts, feelings, beliefs, coping strategies, and emotional regulation. Overall psychological factors include learned experiences, perception, memory, and emotional regulation (Engel, 1977). This model exemplifies the importance of

individual interpretation and response to experiences. When thinking of cognitive and physical disabilities, the psychological model directly connects motivation and health.

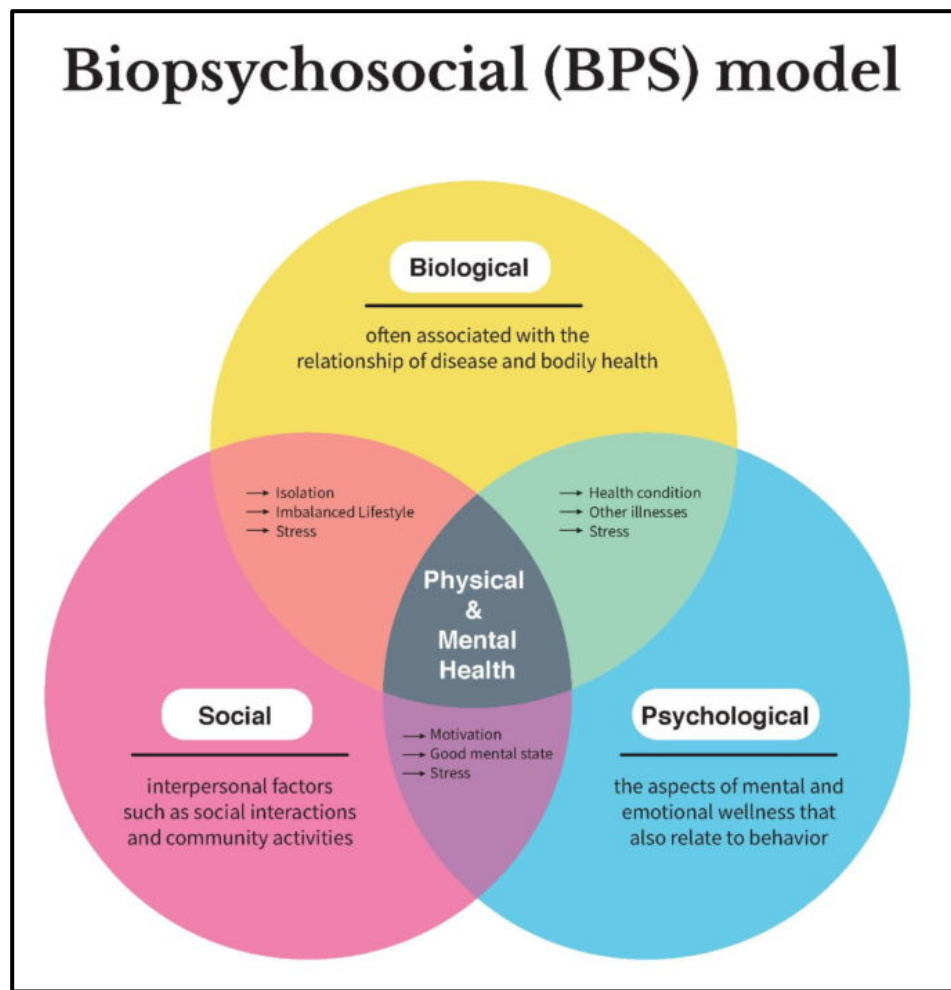


Figure 2.1: Biopsychosocial (BPS) Model

The social model represents the interpersonal factors of social interactions and community activities. This model emphasizes how external factors and environmental factors influence human behavior. The social model factors in how relationships, cultural norms, status, and life experiences shape an individual's mental and emotional health. When thinking of physical and cognitive disabilities, the social model directly connects stigma and social exclusion.

The biopsychosocial (BPS) model integrates the three models, stating that relative health and disease depend on the integration between biological, psychological, and social models. The BPS model assumes that these factors cannot act independently but instead must interact with one another. The interaction of these factors thus determines the cause, manifestation, and resolution of illness (Hardie, 2021). The biopsychosocial model reinforces the need to assess accessibility in Thessaloniki, as it considers both the physical barriers as well as the social interactions and cognitive challenges that might influence how individuals with disabilities experience and navigate their communities.

2.2 – Physical Disability

A physical disability refers to physical impairment or functional limitation, preventing individuals from performing daily activities at an efficient level. Around 1.3 billion people, 16% of the world, live with a physical disability (WHO, 2011). Examples of physical disabilities include cerebral palsy, blindness, deafness, spinal cord injuries, rheumatoid arthritis, osteoarthritis, and many more. These disabilities create challenges in daily life due to impacted mobility, dexterity, and physical function (Narayanan, K., Edward, S., & Prasanth, K., 2025). Having a disability presents other barriers that also make it difficult to function, including but not limited to communication barriers, social barriers, physical barriers, and even attitudinal barriers (CDC, 2024). Ensuring accessibility and inclusion is essential to enabling individuals with disabilities to navigate their communities independently and participate fully in daily life.

2.3 – Cognitive Disability

Accessibility is not only an issue for people who have physical disabilities but also those with cognitive disabilities. According to the European Commission, 165 million people in the

European Union live with a brain disorder including neurodegenerative, neurodevelopmental disorders, and functional disorders (European Commission, n.d.). People often overlook cognitive disabilities, even though they include a wide range of conditions such as intellectual disabilities, autism, traumatic brain injuries, Attention-Deficit/Hyperactive Disorder (ADHD), and memory challenges (Chruzik, et al, 2025). Individuals with these disorders experience a range of complications including seizures, impaired speech, difficulty learning, or mood changes (Dhakal & Bobrin, 2023). The severity of these symptoms can limit independence and contribute to feelings of exclusion.

2.4 – Navigation Stress and Risk in Urban Environments

Inaccessible urban environments create travel frustrations for individuals with disabilities. Poor signage and pedestrian infrastructure design make navigation confusing and difficult. These issues primarily affect individuals' desires to travel by increasing stress and additionally creating safety risks.

Individuals with disabilities may seek accessible routes when traveling around their neighborhood even at the expense of their safety. In one study, residents described the sidewalks in Athens, Greece and Gran Canaria, Spain as overly narrow and crowded for individuals with disabilities (Aidonis et al., 2021, p. 2; Mitropoulos et al., 2023). The European Union Transport Innovation for disabled People needs Satisfaction (TRIPS) project focused on improving the accessibility of public transport. During the project, researchers conducted a study in which participants described accessibility issues in different European cities, including a wheelchair user in Brussels who put their own safety at risk by riding in the street because of a crowded sidewalk (Hatzakis et al., 2024).

A different user in Brussels with a visual impairment described the dangers of new pedestrian crosswalks where planners did not incorporate tactile paving slabs. Without the slabs, the white cane cannot convey the user's location, making navigating urban environments confusing and dangerous (Hatzakis et al., 2024). This participant did not place themselves at risk but instead articulated a lack of awareness during the sidewalk construction. Regarding accessibility, "public awareness is equally important to the tangible infrastructure and applications" (Aidonis et al., 2021, p. 2). The sidewalk design may disorient travelers with disabilities and create safety risks in urban environments with traffic and busy street crossings. This trend continues throughout Athens where crosswalks lack vertical signage, coloring, and audio for visually impaired individuals (Mitropoulos et al., 2023).

2.4.1 – Communication

Navigation stress and risk in urban environments stretches beyond physical challenges and includes the communication of information and services. In dense urban environments, specific challenges often overlooked include visual, spatial, sensory, and noise. People can easily see broken sidewalks and poor street crossings, but communication barriers are less visible and instead based on experiences.

Depending on the severity of the disability, individuals may need resources to help them communicate in service-oriented environments. Individuals with cognitive disabilities may struggle trying to interact with employees who have no knowledge or experience surrounding accessible communication, limiting their independence. Communication "allows us to express desires, ideas, needs, or enables us to ask questions," so individuals who are non-verbal or struggle with communication are at risk for social exclusion (García et al., 2020, p. 2). In urban

environments with dense populations, interaction is constant and necessary meaning communication becomes a major component of accessibility.

An Emerson study found that 80% of individuals with severe intellectual disabilities will never develop effective speech, but 60% of those individuals can use symbols, pictures, or signs to communicate (Emerson, 2001). Augmentative and Alternative Communication (AAC) devices are a common communication support resource. Low-technology AAC's such as communication boards allow individuals with cognitive disabilities to use symbols and pictures to convey their needs without speaking.

Communication is also a critical aspect of inclusion. Adapting communication methods can help individuals with disabilities fully understand and engage in conversations. Considering these challenges is necessary to avoid appearing disrespectful or condescending. For example, individuals with intellectual disabilities may benefit from slower speech in a conversation, but people should make this change without undermining their autonomy. Similarly, people often speak down to individuals in wheelchairs. One can improve this interaction by sitting during this conversation (Australian Federation of Disability Organizations, n.d.). These adaptations can help create more respectful and inclusive interactions.

2.4.2 – Sensory Overload

In urban environments where stimulation is constant and unavoidable, individuals with cognitive disorders are more susceptible to sensory overload. People with autism may struggle with “understanding social nuances, filtering stimuli, and planning daily living”, all of which are prevalent in urban settings (Green, 2015). Common triggers include bright lights, crowded spaces, and loud or unexpected noises, all of which can increase cognitive load (National Autistic Society, n.d.). These stimuli are characteristics of urban environments, where large populations

and busy streets with heavy traffic contribute to overstimulation (World Health Organization, n.d.).

Urban conditions can cause sensory overload which impacts individuals physical, mental, cognitive, and social wellbeing (Weyn et al., 2025). Sensory overload reduces independence and limits individuals’ ability to participate in city life.

2.4.3 – Opportunity Accessibility Index

Researchers conducted a case study in Athens, Greece which quantifies these experiences of risks and inaccessibility using the Opportunity Accessibility Index (OAI). Table 2.1 indicates that people with disabilities (PWD, shown in green) have the lowest OAI for each location out of all surveyed travel groups. This level of inaccessibility may discourage individuals with disabilities, hoping to avoid the “frustration, embarrassment, anger, or feeling of helplessness” when traveling through inaccessible urban environments such as Athens (Papanikolaou et al., 2022, p. 3).

Location	Pedestrian	PWD	Cyclist	Public Transport User	Overall OAI
Green Spaces	100	73.3	100	100	93.3
Recreational Spaces	100	96.5	100	100	99.1
Educational Buildings	100	72.7	100	100	93.2
Health Buildings	0	0	70.4	100	42.6
Public Service Buildings	96.9	61.4	100	100	89.6
Commercial Uses	100	100	100	100	100
Public Transport Stop	28.1	5.7	100	-	44.6

Table 2.1: Opportunity Accessibility Index for Travelers (Mitropoulos et al., 2023, p. 11).

In addition to the discomfort of traveling, the OAI for critical services such as health buildings and public transport stops is 0 and 5.7 respectively. Considering that 33% of individuals with disabilities in Greece are at risk of poverty or social exclusion, access to these services is essential (Disability Statistics - Poverty and Income Inequalities, n.d.). For example, individuals with disabilities in Europe report sacrificing medical treatment because of difficult travel (Papanikolaou et al., 2022, p. 3). Mapping accessibility can relieve travel-related stress and mitigate risks by giving individuals the information they need for safe travel.

2.5 – Neighborhood Assessment for Accessibility

Mapping tools can show the location of businesses, infrastructure, and transportation, as well as their level of accessibility. For individuals with a physical disability, this can include documentation of ramps, curbs, and sidewalks. For people with cognitive disability, this might involve mapping the location of signage, congestion points, or any areas that might cause a sensory overload (Chruzik, et al, 2025).

2.5.1 - Mapping for Physical Accessibility

Mapping is essential for understanding and addressing barriers for people with physical disabilities with examples including a lack of mobility, limited balance, or visual impairments. Mapping for physical disabilities includes documentation of sidewalk conditions, curb heights, slopes, crosswalk accessibility, and other obstructions including trees, poles, fire hydrants, and potholes. This documentation supports advocacy, improves safety, and informs necessary improvements (Brown, 2014).

Mapping software for physical disabilities already exists in several forms. These technologies include various crowdsourcing solutions notably The Mobile Pervasive

Accessibility Social Sensing (MPASS) and EasyGo, which are personalized interfaces that build upon a person's individual needs to collect data and offer customized paths and routes. Easy Wheel and WeMap are both navigation systems for wheelchair users (Chruzik, et al, 2025). Additionally, there are software products like Ariadne GPS, which is a wayfinding tool that speaks to someone who is visually impaired, and gives them in depth directions based on their location and movement patterns (Chruzik, et al, 2025). These tools allow researchers to measure physical accessibility and identify and address barriers.

A study in New Jersey (USA) utilized Project Sidewalk software to collect data on infrastructure issues people encounter in their everyday lives (Project Sidewalk - Audit, 2024). The software works similarly to a navigation app, allowing users to map out the route they plan to take, and mark damaged or missing curbs (see Figure 2.2), ramps, or any other barriers on that route. This tool allows people with disabilities and caregivers to determine the most accessible routes for their everyday lives and to alert the city to infrastructure issues that need urgent repair (Li, 2024). Public spaces and human interaction can support physical and mental health, which makes accessibility essential for all members of a community. Technologies like Project Sidewalk are a great first step in bridging the accessibility gap and reducing exclusion.

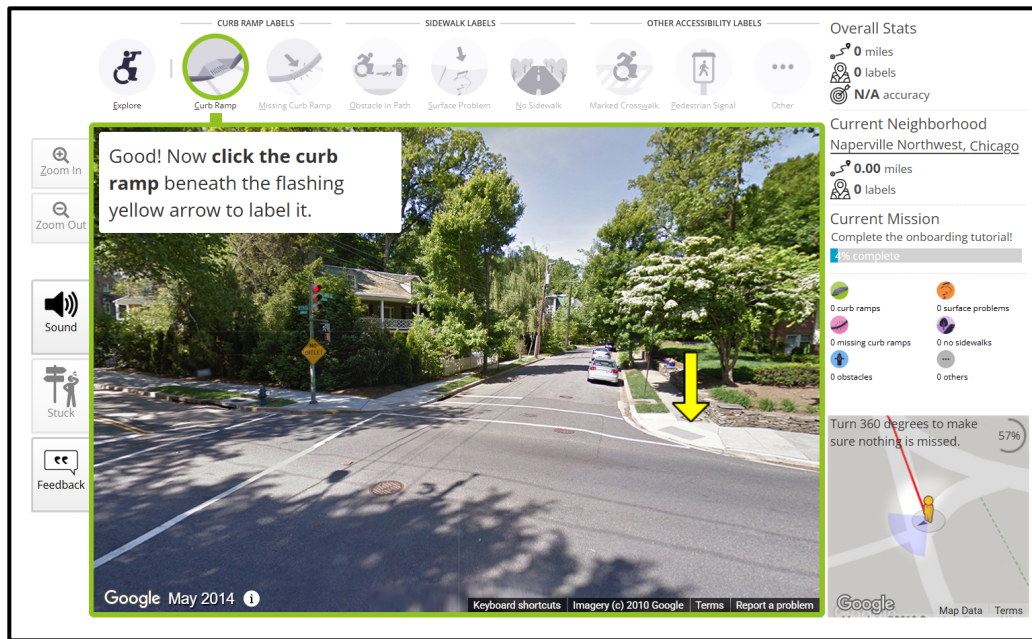


Figure 2.2: Assessing a crosswalk and curb on Project Sidewalk software.

2.5.2 - Mapping for Cognitive Accessibility

Mapping an urban environment includes experiences as well as physical barriers. Individuals with cognitive disabilities, specifically those with autism, have a strong preference for predictability (Goris et al., 2020). Cities are unpredictable, with unexpected events and interactions being common occurrences. This uncertainty can discourage individuals with cognitive disabilities from traveling. Documenting items such as waiting times, store processes, and quieter hours can remove uncertainty, creating predictable and less stressful environments.

Mapping for cognitive disabilities could also document sign clarity and consistency, wayfinding cues like markers or landmarks, mapping out complex intersections, areas of high noise level, lighting quality, and consistently crowded spaces (Saha et al., 2019). People can easily see the physical barriers that they associate with physical disabilities but for cognitive disabilities, these barriers are less visible and more experiential. Conducting interviews and surveys with individuals who have cognitive disabilities may help researchers better understand

these challenges. Neighborhood assessments that include cognitive disabilities allow all individuals to shape how communities understand and approach accessibility.

Mapping both physical and cognitive accessibility creates an inclusive, navigable neighborhood that identifies safe, accessible routes tailored towards users with various needs. Mapping accessible routes can spread awareness to surrounding businesses and communities and improve the independence and confidence of individuals with disabilities. This approach promotes a more equitable and inclusive community environment by addressing both physical infrastructure and living experiences.

2.6 – Drasi Gia to Kati Allo

Drasi Gia to Kati Allo is a creative, non-profit activity center for disabled people in Thessaloniki, Greece. In the center, volunteers and staff members create a safe space to give people with disabilities the chance to learn, grow, and become active members of society. The program currently has 50 active daily participants. The morning typically consists of around 25 adults over 18 years of age, and the afternoon consists of roughly 25 children and teenagers. The programs at the center work to improve cognitive skills, artistic expression, prevocational training, and social skills of participants through various workshops and activities. Through this work, Drasi Gia to Kati Allo provides general knowledge and skills, offers entertainment, promotes socialization, enables integration into society, provides family support, and overall creates a more equal society (Movement for Change, n.d.).

Drasi Gia to Kati Allo has a committed volunteer base that aims to increase independence amongst the participants by introducing them to the surrounding neighborhood. The participants at the center take part in group trips to various businesses, grocery stores, and coffee shops to utilize the skills they gain through the program (Movement for Change, n.d.). Despite their work

in this area, there has been no systematic assessment of the neighborhood surrounding the center to explore physical, cognitive, and social accessibility. Having thorough neighborhood assessments would help the organization identify barriers in the environment, allowing people with disabilities to navigate their neighborhood safely and comfortably, fostering a greater sense of inclusion and belonging.

3.0 – Methodology

The goal of this project was to conduct neighborhood assessments to help Drasi Gia to Kati Allo (SFA) address the lack of accessibility, inclusivity, and belonging for individuals with disabilities. Our team addressed this project goal through the following objectives:

1. Identifying physical obstacles and communication barriers in the neighborhood surrounding the center for individuals with disabilities.
2. Investigating alternative communication methods for participants of the center to promote independence to enhance community engagement.
3. Creating informative materials outlining general accessibility and inclusivity surrounding the SFA center for all participants and the local community.

This chapter explores the methods the team implemented to address these objectives.

Figure 3.1 illustrates how the project flows from objectives to methods to produce final deliverables.

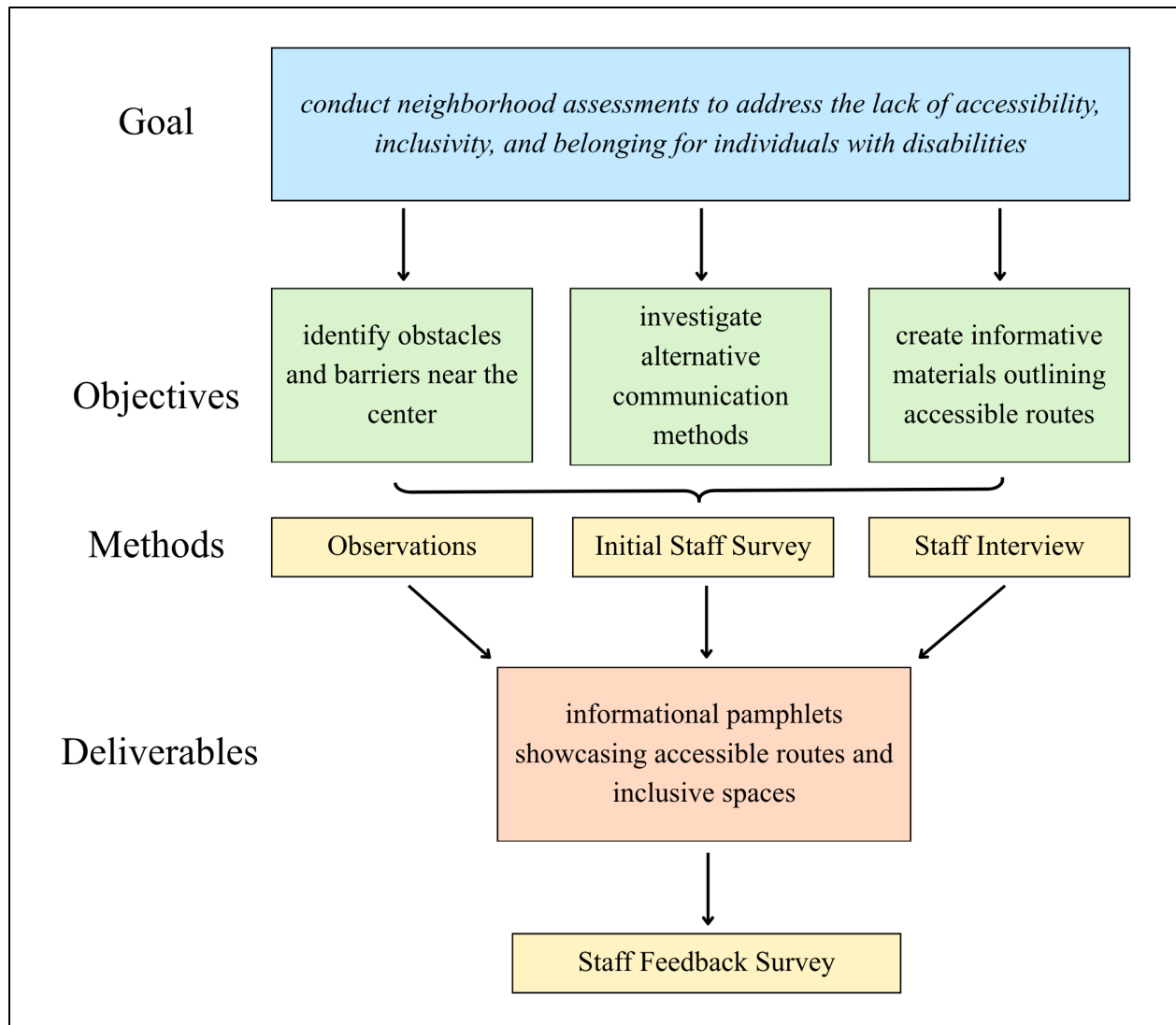


Figure 3.1: Flowchart of Project Details

Our team worked on site in Thessaloniki, Greece from March 16 to May 7, 2026. During this time, we observed interactions within the neighborhood, surveyed workers within the SFA center, and mapped a 500-meter radius surrounding the center (see Figure 3.2). The team conducted interviews and surveys with SFA staff and caregivers to help gather relevant information and observed day-to-day activities within the center and the surrounding neighborhood. This research focused on understanding disabilities through the perspectives of volunteers and employees at the SFA center, and caretakers of individuals with disabilities.

Having the opportunity to learn from a range of individuals enabled us to gain insight into multiple perspectives and experiences, grounding our project with a variety of viewpoints.



Figure 3.2: Map of Frequently Visited Locations Surrounding the SFA Center

3.1 – Observations

3.1.1 Observing SFA Participants in Center and Neighborhood Spaces

Observational research reveals interactions and how people prioritize and organize situations and physical objects (Kawulich, 2012). The team utilized observations to understand the daily experiences of individuals with disabilities. Participant observation makes researchers

aware of the participants' world by participating in activities with them, which aligns directly with the goals of our project (Kawulich, 2012, p. 4). Observations proved especially valuable when working with individuals with more severe cognitive disabilities, as the method can verify nonverbal expressions of feelings (Schmuck, 1997).

The first observations the team conducted occurred on March 19 from 11:00 a.m. to 12:00 p.m., our first day at the center. The team split into pairs and observed two participant workshops within the center. The first workshop was a physical activity based on improving hand-eye coordination and color recognition, and the second workshop was calmer and used movement to music to work on improving movement skills and speech. Each team observed the space where the activity occurred, taking unstructured notes and lightly participating in the activities when appropriate (see Appendix A). These notes included information on the types of activities, participant engagement, how they navigated the space, and interactions between participants and employees. This observation allowed us to assess the range of participant abilities and provided insight into the different communication strategies the volunteers at the center employ when working with people with physical and cognitive disabilities.

SFA participants are local neighborhood residents who also frequently engage with businesses surrounding the SFA community center. The team coordinated with the sponsor organization to find opportunities to accompany adult participants and staff on short trips around the city. We conducted observations at frequently visited public buildings and spaces such as sidewalks, parks, or coffee shops.

On March 26, the team accompanied five adult participants and five staff members at the center on their walk to a nearby park and cafe. The walk to the park began at 9:15 a.m., during which the team took photos of accessibility barriers in the streets and detailed notes on the

interactions between the participants and the staff members. Participants arrived at the park at 9:30 a.m. and proceeded to the playground. The team observed how the participants navigated a different space. After 45 minutes at the park, the group headed to a nearby cafe. Here, we were able to watch interactions between the participants and a local business, while also observing how they navigate a less familiar space than the center. These observations ended upon arrival back at the center at 11:35 a.m. In this brief session, we were able to identify physical obstacles along this specific route and observe how the participants navigate the neighborhood surrounding the center. The unstructured field notes (see Appendix A) focused on different barriers along the walk (like curbs, noise levels, and broken sidewalk tiles), how participants reacted to a new environment, how heavily the participants relied on the staff, and any interactions involving the participants.

On April 2, the team accompanied a group of seven participants and three staff members to a local volleyball center to observe a collaborative event in honor of World Autism Awareness Day. The participants rode to the venue in a van, so the team focused on observing how the participants were able to navigate a new space that is crowded and overstimulating. The team and participants arrived at 11:15 a.m., where we observed speeches and a band performance. The venue was a volleyball center with four different activities set up including painting on a canvas, keeping a ball up with a parachute, bowling games, and obstacle courses involving jumping and playing with a basketball. The participants engaged in the painting activity for approximately 10 minutes before they headed back to the center. The team took unstructured notes on how participants reacted to a new environment, how they navigated the space, potential signs of overstimulation, and different obstacles in the space (see Appendix A). This allowed us to investigate communication methods between the participants and volunteers outside of the

center, as well as identify different physical obstacles that might not be as prevalent in the radius around the center.

3.1.2 - Walking Accessible Routes

The team conducted neighborhood accessibility assessments in the area surrounding the SFA center to assess real-world accessibility conditions of the built environment. Our sponsor provided us with a list of frequently visited locations (see Table 3.1), which guided our observation routes and ensured their relevance. The team walked at least three routes, three days per week from 10:00 a.m.-2:00 p.m. between the SFA center and locations that participants frequent over a two-week period, evaluating accessibility along the most used paths. We utilized Google Maps to walk the quickest route to our destination as a group, photographing barriers along the way, and then split into teams of two to walk alternate routes taking the neighboring streets. Using the photographic evidence we gathered, we identified the most accessible route out of the three and focused each pamphlet on that specific route. In total, the team evaluated 31 streets, including but not limited to those shown in Figure 3.2, on route to the different locations shown in Table 3.1.

Location	Address	Participant Transportation Mode
Coffee Story	Mark, Mpotsari 132, Thessaloniki 544 53	Walk
The Fifth Beatle	Papafi 210, Thessaloniki, 544 53	Walk
Park with Playground	Str. Gennadiou, Thessaloniki 542 50	Walk
Nikos Papazoglou Park	Anatoliki Thraiki 86, Thessaloniki 544 53	Walk
Biniéta (Library)	Kanari 66, Thessaloniki 544 53	Walk
Cafe Juris Billiard and Bowling	Al. Papanastasiou 58, Thessaloniki 546 42	Van
White Tower of Thessaloniki	Thessaloniki 546 21	Van
Thessaloniki Concert Hall	25is Martiou &, Thessaloniki 546 46	Van
Aretsou Beach	Kalamaria Municipality 551 32	Van

Table 3.1: List of Frequented Locations

The observations focused on identifying physical barriers such as uneven, broken, narrow, or obstructed sidewalks and areas that lacked curb ramps. The team also looked for areas of high pedestrian congestion, high noise levels, and areas with a lot of distractions as these may cause overstimulation in people with cognitive disabilities. We took detailed field notes including the date, time, location, and accessibility challenges we encountered as well as photographs to provide visual evidence to support decisions concerning the final routes for the pamphlets (see Appendix B).

The team also participated in experiential observations where we took turns pushing each other in a wheelchair and wearing a blindfold to simulate being blind. We navigated routes to the park near the church and Fifth Beatle coffee shop to assess barriers that we might have skipped over otherwise including surface conditions, slope levels, curb ramps, and crosswalks. This provided insight into the daily lives of the participants and the challenges they face when navigating the radius around the center. To choose the most accessible routes, the team used photographic evidence to select the route with the least accessibility barriers. These observations

allowed the team to identify accessible routes surrounding the center which aided in the creation of our informative materials.

3.2 – Neighborhood Survey

The team employed a neighborhood survey to four caregivers, one employee, and the director of the SFA center to gain additional perspectives on physical and communicative barriers. Staff responses to the survey increased awareness of accessibility obstacles and revealed their experiences working with individuals with disabilities. These individuals often witness accessibility challenges in the neighborhood based on their proximity to participants daily.

The paper-based survey consisted of three open-ended and three closed-form questions about common accessibility obstacles in the area (see Appendix C). The team's sponsor translated the survey into Greek and distributed a paper version to staff due to limited internet access in the center (see Appendix D). Each survey outlined the consent form, which included contact information, data collection purposes, and participation details. The open-ended questions asked respondents to identify obstacles they avoid enroute to specific locations for someone with a physical or cognitive disability and to suggest changes that would improve accessibility and inclusion for individuals with disabilities. The team manually inputted the data from closed-form survey questions into Qualtrics and organized open-form questions by response, themes, and question (see Appendix E). The team analyzed the responses to identify physical and communication barriers in the neighborhood surrounding the SFA center. These findings informed the content of the pamphlet which supports caregivers and acts as an alternative activity for participants.

3.3 – Staff Interviews

The group conducted semi-structured interviews in conjunction with surveys to obtain a more comprehensive understanding of the objectives including identifying communication barriers and informing the design of pamphlets. The interview session included two staff members, separate from those surveyed, and lasted for approximately 20 minutes due to language barriers and strict work-related time constraints. It consisted of six open-ended questions addressing the built environment, communication barriers, and existing informational materials (see Appendix F).

Two team members conducted the interview virtually and transcribed the session using an embedded Zoom transcription feature. This transcription feature does not record names, voices, or video which support confidentiality. Prior to the start of the interview the researchers clearly explained and obtained verbal informed consent for participation and data collection at the outset of the interview (see Appendix F). The team then compiled the resulting transcript into a Microsoft Word document (see Appendix G) to facilitate subsequent analysis. While additional interviews may have yielded further insights, the researchers conducted only one interview session due to language barriers, additional time required with translators, and strict time constraints due to SFA participant needs.

The team systematically reviewed and analyzed the transcribed interview data to generate a set of considerations for inclusion in each pamphlet. The team coded the transcripts into categories such as limitations in accessibility, physical barriers in the neighborhood, cognitive challenges in the neighborhood, mapping considerations, design ideas, and the center's goals for the project. Team members evaluated each consideration individually and incorporated it in a way that preserved the simplicity, clarity, and informational value of the pamphlets.

3.4 – Pamphlet Evaluation Assessment

The team used insights gained from previous methods to guide the development of the pamphlets. The team organized observation data and created interview and survey questions with the purpose of informing the content of the pamphlets. To evaluate the pamphlet, the team utilized an additional survey. The primary goal of this survey was to gain feedback on the informative materials the team created. We hoped to gain insight into the content and effectiveness of the pamphlets by surveying SFA employees to gather different perspectives. The team used the information obtained to produce a practical resource that addresses inclusivity and accessibility while meeting stakeholder standards.

The team conducted a paper-based survey that the sponsor distributed to the center's employees. Surveying employees in the SFA center offered insight into their opinions and knowledge, providing the team with a clear understanding of the content that is most useful to include in the pamphlet. The survey has eight questions, with a combination of multiple choice, 10-point Likert Scale, and open-ended questions (see Appendix H). Likert Scale questions evaluated pamphlets visuals, while open-ended questions asked staff for recommendations on improvements. The coding for the open-ended questions can be seen in Appendix H. We pulled out qualitative data and created charts to showcase the feedback we received. We used this data to make the necessary changes and improvements to our pamphlets before we provided them to the SFA center for use. Due to the needs of the participants within the center, we wanted to be very thoughtful about how we use the employees' time, so we designed the survey to be short. We had our on-site research assistants translate the questions, provided all materials to employees in advance to give them plenty of time for review, and made sure the survey took less than 10 minutes.

4.0 – Results

During our time in Thessaloniki, our team worked closely with Drasi Gia to Kati Allo (SFA) to investigate physical accessibility limitations within the neighborhood surrounding the SFA center. We compiled the data collected through our observations, interviews, and surveys and noticed commonalities amongst all three. Through our methods two major themes emerged and shaped the outcome of our project: limitations within the built environment and barriers caused by human behavior.

4.1 – Overcoming Barriers in Communication and Interactions

The team observed two workshops in the center to determine how participants and caregivers communicate and interact with the environment inside of the SFA center. The first was a physical activity workshop structured as an obstacle course, focused on improving participants' balance, recognition, and coordination with six participants and six caregivers. The second workshop involved participants dancing to music and repeating sounds made by the lead instructor, emphasizing stretching, body movement, and imitative learning. This session had nine participants and six caregivers.

In both workshops, the team found that communication between caregivers and participants was primarily via physical touch, including guiding their movements and leading by example (See Appendix A). Caregivers redirected behaviors by making participants repeat or change actions. Participants became motivated after seeing their peers complete the workshops, clapping and cheering for each other during every activity. Caregivers used positive reinforcement to support participation in the activities, providing words of encouragement and praise after every challenge. The team's sponsor mentioned a domino effect that occurs in the

center, where one participant's behavior can influence others, resulting in increased disruptions or heightened enthusiasm for activities. Even small behavior changes can significantly affect the center's environment, making structured activities and consistent staff support essential for maintaining a positive space. These findings were instrumental in gaining insights into how participants communicate with their caregivers and maneuver around different spaces which directly informed the design of our pamphlets by highlighting the need for clear, supportive, and behavior-aware communication and navigation strategies that promote independence while maintaining a positive and structured environment.

4.2 – Barriers in the Built Environment

Through neighborhood assessments, surveys, and interviews, our team witnessed firsthand the many accessibility challenges within the neighborhood surrounding the SFA center. The team collected data by systematically walking 31 streets relevant to the routes to frequently visited locations while taking photographs, field notes, and observing real-time conditions across different days and times. Additionally, the team used survey and interview data to provide context and support to the observations from the walking events.

In the open form survey questions, we asked staff about accessibility barriers and challenges regarding the locations they visit most frequently with participants. Survey and interview results indicate that several physical challenges exist in the neighborhood surrounding the SFA center. Figure 4.1 displays staff responses with locations or physical infrastructure on the y-axis, and percentage of responses on the x-axis. The most common obstacles, highlighted in orange, were sidewalks and street crossings with 100% of respondents reporting sidewalks were a major problem and 83% concerned about physical challenges related to street crossings. Staff mentioned specific sidewalk obstacles in the open-ended survey question and interviews

such as trees, uneven or damaged pavement, and a lack of or blocked curb ramps. In the same questions, survey participants and interviewees reported obstacles at street crossings including the lack of crosswalks, drivers not yielding to them, and a lack of audible signals for individuals with visual impairments (see Appendices E and G).

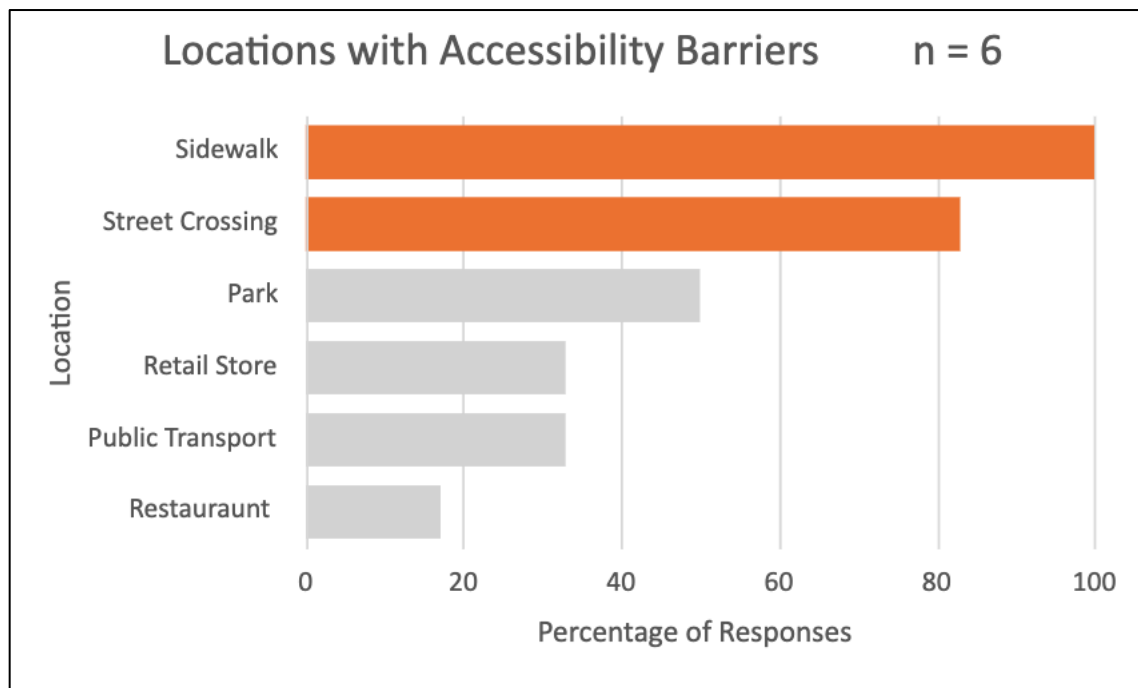


Figure 4.1: Locations with Accessibility Barriers

The team surveyed six staff members regarding the locations they visit most frequently with participants. The results from this survey question clarified which locations staff wanted pamphlets for and guided the team's neighborhood assessments. Figure 4.2 displays the most frequently visited locations. The Nikos Papazoglou Park is colored dark blue because it was ranked first by all six staff members. Based on the results, the team also made pamphlets for the following locations, including the playground next to the Fifth Beatle (2), the Fifth Beatle (3), and Coffee Story (4).

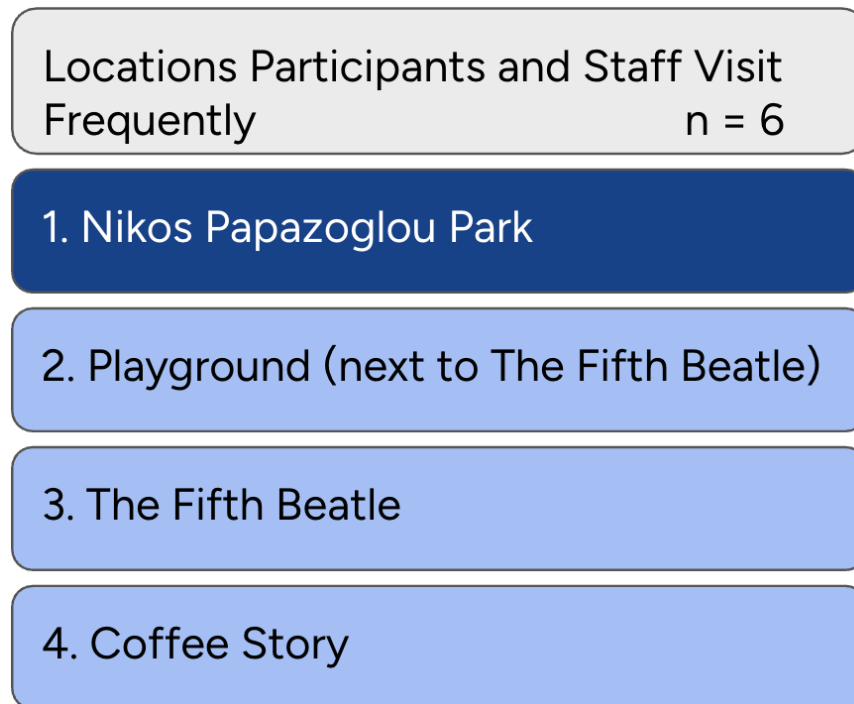


Figure 4.2: Locations Participants and Staff Visit Frequently

When asked about accessibility barriers and improvements that could be made in the neighborhood, staff indicated that wider sidewalks and unobstructed ramps would be the most helpful changes to the local infrastructure. While changing physical infrastructure is out of the scope of this project, these results provided the team with a narrower scope of challenges and locations to focus on when developing informative accessibility materials.

4.2.1 - Structural Inaccessibility

Structural inaccessibility refers to barriers in the design and condition of the built environment, such as broken sidewalks, lack of ramps, or obstructed pathways, that limit safe and independent navigation for individuals with disabilities.

Figure 4.3 displays the total number of barriers on 31 different streets on route to specified locations (Table 3.1). This graph represents the total barriers across all routes, with the x-axis being the type of obstacle observed, and the y-axis being the total count. Broken sidewalk

tile clusters, represented in dark red, were the most frequent obstacles (34). Other common obstacles, shown in lighter red, were sidewalk drains (21) and steps or stairs in the sidewalks (16).

This data aligns with our team’s previous findings that sidewalks were the primary source of accessibility barriers. These barriers present challenges that are widespread and occur across the neighborhood. The repetition of similar barriers across various locations (see Appendices I and J) indicates persistent issues and difficulty navigating the SFA neighborhood safely.

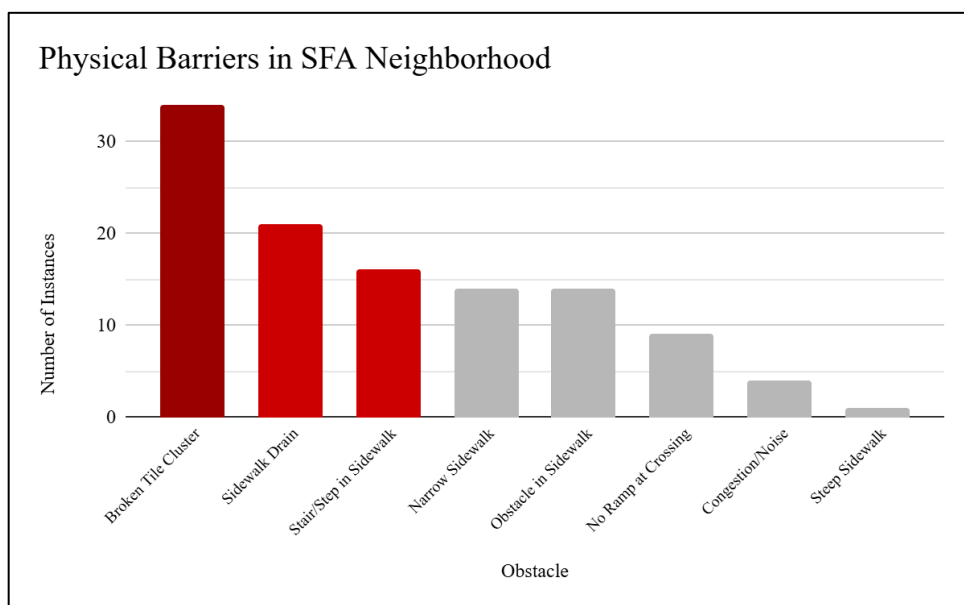


Figure 4.3: Physical Barriers in SFA Neighborhood

While Figure 4.3 quantifies the accessibility barriers across every route, observations reveal limitations within the built environment and how these barriers appear in real world conditions. The team found that sidewalks in the neighborhood around the SFA center are extremely narrow, often interrupted by random steps and abrupt stops. Figure 4.4 displays Vithynias Street where the center is located. Note that the sidewalk discontinues abruptly, with no curb ramp for a safe exit to the street. Figure 4.5 focuses on a tree in the middle of a sidewalk on the corner of Michail Chourmouzi and Agrianon, two streets frequently travelled by

participants of the center. There is no room on either side of the tree for a wheelchair, and it can be difficult for an individual with any physical or cognitive disability to maneuver around the tree.



Figure 4.4: Sidewalk with Step and Blockage on Vithynias Street (near SFA center)



Figure 4.5: Tree in the Middle of Sidewalk on the Corner of Michail Chourmouzi and Agrianon

Barriers such as these force individuals to turn around, and find a different route to their destination, rendering the entire street unusable as part of a route to frequented locations. Turning around can be particularly problematic for individuals with cognitive disabilities as it causes disorientation and can result in them losing their way. The other alternative if a participant does not want to turn around is to step off the sidewalk and enter the street. This is not feasible for a wheelchair user or someone with a physical disability due to the step of the curb and traveling in the street adds a host of safety concerns for individuals regardless of disability.

Figure 4.6 pictures the extremely narrow sidewalks of Cheirokratous Street, and other examples like those in Figures 4.4 and 4.5 even have several barriers (poles, trees, and steps) combined with narrow sidewalks. As we learned from observing the workshops in the center, participants and caregivers rely on physical touch for guidance and communication. Narrow sidewalks prevent side-by-side travel for participants and caregivers, making a route more difficult to navigate and increasing safety risks for participants who rely on having a caregiver at their side.



Figure 4.6: View of Narrow Sidewalk on Cheiokratous from Anatoliki Thracis

Furthermore, the team observed infrastructure problems in terms of accessible crossings at intersections. While Figure 4.7 displays the lack of a curb ramp and tactile slabs on the Corner of Cheiokratous and Vithynias, Figure 4.8 depicts the busy intersection of Markou Botsari and Ionias Streets with no crosswalk and missing tactile slabs. The lack of curb ramps makes these streets inaccessible to someone in a wheelchair or with significant balance and coordination issues. Moreover, Figure 4.8 documents the lack of audible signals to allow for safe street crossings in this neighborhood, making these streets inaccessible and dangerous for someone with visual impairments. Additionally, the inconsistent and unpredictable placement of accessibility features can create confusion and make navigation especially challenging for individuals with cognitive disabilities.



Figure 4.7: Missing Curb Ramp and Tactile Slab on the Corner of Cheiokratous and Vithynias



Figure 4.8: No Crosswalk and Tactile Slabs at the Intersection of Markou Botsari and Ionias

The built environment often unintentionally excludes individuals with disabilities from safely navigating and fully engaging in their communities. The barriers we document showcase

how the built environment does not cater to the wide variety of accessibility needs, resulting in disrupted movements, safety risks, and constant navigation adjustments that limit independence for people with disabilities. The documentation of the neighborhood routes by the team (see Appendix I) enabled us to identify streets with the least number of barriers and select the most effective, safest route to the locations in the neighborhood most visited by the center participants and their caregivers.

4.2.2 - Deterioration of the Built Environment

Our observations also revealed that many obstacles in the neighborhood stem from the deterioration of the built environment. The team distinguished between broken sidewalk tiles (see Figure 4.9) and crumbling sidewalks (see Figure 4.10) as two related but distinct conditions that pose significant accessibility challenges. Broken tiles create uneven surfaces with sharp edges and gaps that can catch wheelchair wheels or cause tripping hazards. In contrast, crumbling sidewalks include more widespread surface deterioration, such as loose gravel, eroded sections, and unstable ground, which reduce traction and make navigation difficult for everyone.



Figure 4.9: Cluster of Broken Sidewalk Tiles on Michail Chourmouzi



Figure 4.10: Crumbling Sidewalk and Curb on Thessaloniki – Kato Toumpa

While both conditions present accessibility risks, the nature of these risks differs. Broken tiles create localized, abrupt obstacles that may stop movement or require assistance, while crumbling sidewalks create a continuous unstable surface that can lead to fatigue, loss of balance, or difficulty maintaining a steady path. For wheelchair users, both these conditions make navigation difficult and, in some cases, impassable, while also posing tripping and stability risks for other individuals with mobility impairments.

Additionally, navigating these environments requires constant attention which can yield physical and cognitive strain. During our observations, participants frequently slowed their pace and required assistance when crossing uneven or damaged sections. This impact was evident along the route to the park near the Fifth Beatle, where the team completed the walk in approximately seven minutes, while our trip to the same location with SFA participants took roughly 15 minutes, double the amount of time.

4.3 – Social Behavioral Barriers

Accessibility depends on the combination of existing infrastructure and human behavior. The teams' observations often revealed a lack of awareness from pedestrians and drivers associated with accessibility in a neighborhood. We observed several crowd and vehicular incidents including blocked sidewalks, obstructed ramps, and pedestrian congestion which can temporarily make even the most accessible spaces unusable. Human actions such as parking cars on sidewalks (see Figure 4.11) and blocking curb ramps (see Figure 4.12) negatively impact accessibility by reducing usable sidewalk space and, in many cases, making sidewalks completely unusable.

These barriers force individuals to either turn around or enter the street, adding unnecessary safety risks. These situations are unfortunately common and unenforced and result

from a lack of awareness about disability and accessibility in these communities. Within the biopsychosocial model, these barriers are not only physical. The environment and people's actions shape how individuals experience these spaces. They make movement more difficult and can also cause stress, frustration, or fear. They also show how a lack of awareness and enforcement can lead to exclusion and limit full participation in the community.



Figure 4.11: Car Blocking Entire Sidewalk at the Intersection of Sinopis/Vithynias



Figure 4.12: Car Blocking Curb Ramp and Tactile Slabs on the Corner of Distomou and Papafi

Team observations presented how pedestrian congestion and environmental activity affected accessibility. We observed higher perceived noise levels near most restaurants and cafes along the routes to various locations, based on direct auditory observation. Moreover, the team encountered visual distractions caused by store displays extending onto sidewalks (see Figure 4.13). The biopsychosocial model explains these findings by showing that accessibility involves more than physical barriers. Noise and visual distractions affect how individuals process information, navigate spaces, and feel within their environment, especially those with cognitive disabilities. These factors can increase stress and reduce independence, limiting overall accessibility.

Survey and interview findings identified stimuli as the primary challenge for individuals with cognitive disabilities. Interviewees noted that “distractions and stimuli from the environment do not necessarily help them to go to their destination,” mentioning traffic, the

sounds of busy streets, and the colors of the signage as the most frequent issues. Survey respondents reported a wider variety of obstacles that can overstimulate including overcrowding and lack of signage (see Appendix E). Respondents identified social barriers such as “strange looks from people” and “people’s behavior” as common experiences when accompanying participants in public. These statements highlight the accessibility challenges for individuals with cognitive disabilities and the way they differ from challenges the built environment can introduce.



Figure 4.13: Store Displays Extending onto Sidewalk on Anatoliki Thracis

Distractions and congestion create limited space for navigation and high noise levels which can cause overstimulation and increase stress in people with cognitive disabilities. Furthermore, these social issues can cause difficulties for individuals with mobility impairments, physical disabilities, wheelchair users, and limits the ability for side-by-side travel for

participants and caregivers. While accessibility is a design consideration for the built environment, it also is a component of social responsibility and everyday actions.

4.4 – Discussion

This section focuses on how we translated observed physical, social, and cognitive barriers into specific design choices. By connecting our results to our deliverables, we show how this project created practical and usable materials for the SFA center.

We identified consistent accessibility challenges in the SFA neighborhood such as sidewalks, street crossings, and environmental distractions that lead to the design of our pamphlets. These challenges require individuals with disabilities and their caregivers to constantly adjust their routes and navigation strategies. We chose not to create pamphlets that simply describe these barriers. Instead, we designed pamphlets as practical navigation tools. We focused on guiding users along the most accessible routes rather than listing all obstacles. This decision allowed us to provide actionable information that helps users navigate the neighborhood more safely and confidently.

4.4.1 – Accessible Route Evaluation Process

When determining the least inaccessible routes, the team reviewed photographic evidence of various barriers, including broken tile clusters, drainage divots crossing sidewalks, steps, narrow pathways, obstacles such as trees or planters obstructing pedestrian or wheelchair navigation, missing curb ramps at intersections, high congestion or noise levels, and steep sidewalk grades. The team assessed each barrier based on its severity and impact on mobility. For example, the team classified obstacles such as a tree positioned in the middle of a sidewalk as inaccessible because it would prevent wheelchair passage, whereas the team generally considered issues like drainage divots or broken tiles passable despite the challenges they posed.

Ultimately, the team selected the most direct route with the fewest significant barriers as the preferred accessible route.

4.4.2 – Cognitive Accessibility and Visual Communication

Our findings showed that environmental stimuli, unclear signage, and unpredictable conditions increase stress for individuals with cognitive disabilities. These challenges made it necessary to simplify how we presented information. We designed the pamphlets to reduce cognitive load by creating one destination per pamphlet, presenting directions in clear, step by step instructions, and limiting text and emphasizing visual guidance. The intent of this structure was to help users process information more easily and follow routes with greater independence.

We observed that SFA participants rely heavily on visual cues, repetition, and guided interaction during activities. Caregivers often used demonstrations and positive reinforcements to support communication. We applied these strategies directly to our pamphlet design. We included clear landmarks along each route, numbered and color-coded markers to show sequence, and matching elements that connect landmarks to map locations. These features make the pamphlets more interactive and match the communication methods caregivers already use at the center. Consequently, the pamphlets support both navigation and learning.

4.4.3 – Addressing Social and Environmental Barriers

We found that social behaviors such as parking on sidewalks and environmental conditions such as congestion frequently reduce accessibility. These barriers changed throughout the day but consistently affected navigation. We accounted for these conditions by designing pamphlets that guide users along routes with fewer frequent disruptions, emphasize stable and recognizable landmarks, and provide clear directions that remain useful even when conditions

change. This approach allows users to adapt to real world variability while still following a reliable route.

We directly applied our findings to every aspect of the pamphlet design. We used data on physical barriers to select routes, cognitive accessibility findings to simplify layout communication observations to guide visual design, and stakeholder feedback to refine usability. By combining these elements, we created pamphlets that support independent navigation and improve user confidence.

5.0 – Pamphlet Design Considerations and Evaluations

This chapter demonstrates the iterative pamphlet revision process and explains the design and development choices that led to the final version of the team’s five accessibility pamphlets. The team based each decision and change to the pamphlet on data collection results and feedback from staff at the SFA center. Given that our sponsor wanted to have the pamphlets be a paper product and serve as an interactive material for use by both caregivers and participants, the team used Canva (canva.com), a free online graphic design tool that specializes in creating social media graphics to create individual versions for each route. Canva provides users with a range of templates and tools to create professional designs, and it allows for collaboration of groups to be able to design together.

5.1 – Preliminary Pamphlet Design

Our sponsor emphasized creating visually appealing pamphlets, staying open to design ideas, and offering multiple options for each route. When members of the team created a design, we made sure to share it with SFA staff for feedback. The team implemented feedback on the design in each version, and by highlighting issues in every iteration, each team member made useful design changes. The feedback on the design ideas yielded more diverse pamphlets with which to experiment. Our preliminary designs included a map with a route to a nearby location, accessible local businesses, barriers along the route, and landmarks on the route to gamify our product. We took each variation of the pamphlet to our sponsor to ensure that she had input in the design and that we were developing something useful and meaningful.

Figure 5.1 shows the design we produced before arriving on site. Our original plan was to create a trifold pamphlet that included all the accessible routes to places the participants often visited including restaurants, stores, pharmacies, and doctors' offices along the streets

surrounding the center. We intended to make one comprehensive pamphlet for physical accessibility along these routes and a second comprehensive pamphlet for cognitive accessibility along these routes.

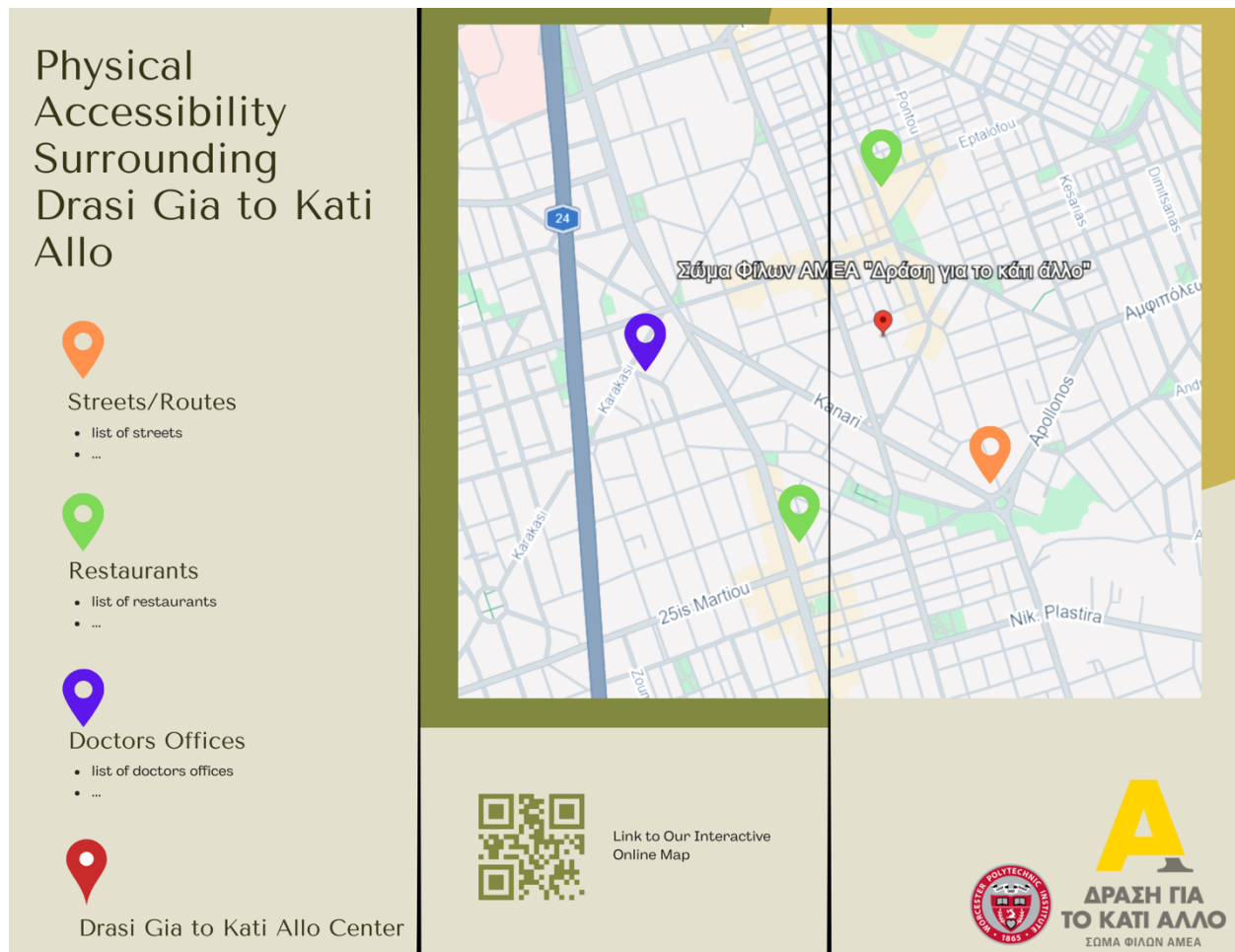


Figure 5.1: Preliminary Pamphlet Design – Created Prior to Arrival

After arriving on site and meeting with our sponsor in person for the first time, we had a clearer idea of the key features to include in our pamphlet. The SFA center has participants with a variety of disabilities, and our sponsor encouraged us to keep the information in the pamphlet as concise as possible. Consequently, we felt it was best to have separate pamphlets for each route, creating a handful of pamphlets as opposed to just one pamphlet. Our sponsor provided us

with a list of the most frequently visited locations, so we began focusing our research on finding the most accessible routes to each of those places.

Figure 5.2 shows the first iteration of one of our pamphlets with a clearly labeled route from the SFA center to Nikos Papazoglou Park. The four photos inside the Figure include arrows to identify different barriers our team observed along other streets, explaining why we chose the route that we did (identified by a green route from the center to the park).



Figure 5.2: Preliminary Pamphlet Design Version 1

Upon receiving feedback on our first version of our pamphlet, we wanted to explore different map styles to create a more straightforward design. In Figure 5.3, our goal was to keep the map as simple as possible, using plain black lines for the streets. In this version, the team tried to incorporate all routes onto one map.



Figure 5.3: SFA Map Design Version 1

Figure 5.4 illustrates the second type of map design the project team created, with grey streets and blue route markers for a softer appearance. At this stage, we confirmed the need for one single route to one location per pamphlet using one map for all routes proved to be a confusing task.



Figure 5.4: SFA Map Design Version 2

The team concluded that the look of a drawn-out map was a better visual tool as opposed to a pre-generated online map. We then went back to the three-fold pamphlet format and researched a rough pamphlet idea that provided the best route from the SFA center to Nikos Papazoglou Park. Figure 5.5 originally presented barriers along the route. However, since the main audience for the pamphlets are the participants of the center, we began to point out different landmarks along the route with simple instructions to make navigation easier.



Figure 5.5: Preliminary SFA Pamphlet Design Version 2

Figure 5.6 is a cleaned-up version of a pamphlet map with landmarks, and this represents our first attempt to gamify the pamphlet as our sponsor suggested. Each landmark on the map matches the landmark on the right side of the page. When using this pamphlet, the participants must try to match and locate the landmarks along the route to get to the destination. Based on this first iteration, the team continued exploring different ways to incorporate the matching element into future designs.



Figure 5.6: SFA Pamphlet Design Version 3

5.2 – Improved Pamphlet Design

With the landmarks on both sides of the pamphlet design in Figure 5.6, the team felt it might be too distracting, and the images too small for people to recognize while traversing the proposed route. This concern led us to our improved pamphlet design. The exterior pamphlet page (see Figure 5.7) includes an image of the destination in the background as well as the name of the location on the front cover. At the request of our sponsor, we included the difficulty level of the route, and the types of disability the route would serve best. The inside fold includes simple instructions on how to get to the destination, when to turn, and landmarks you should see along the route.

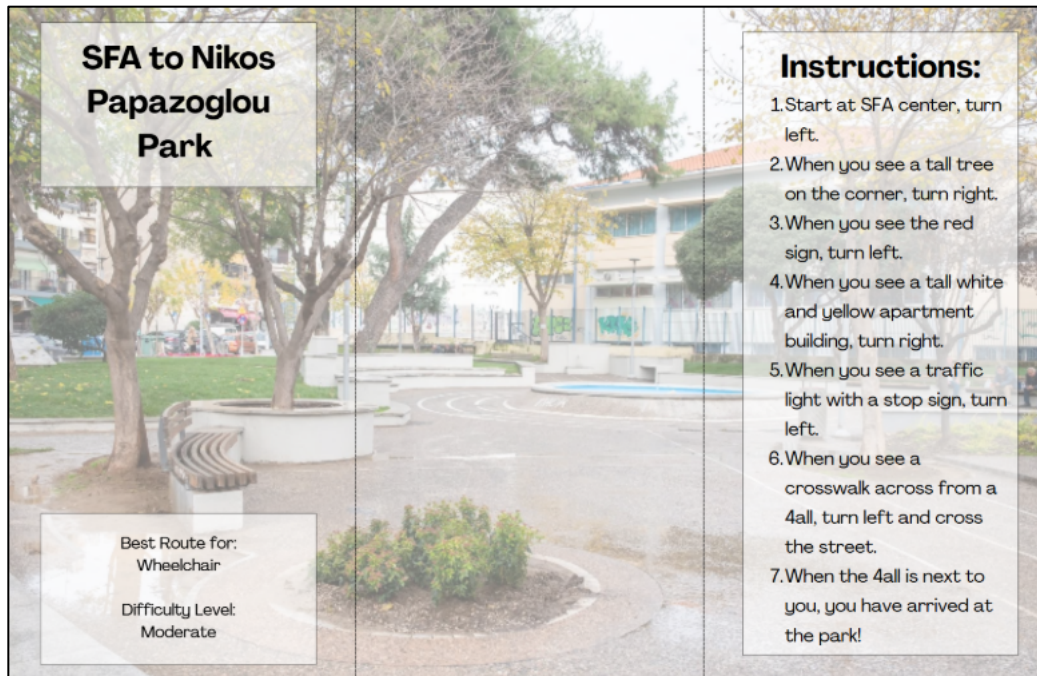


Figure 5.7: SFA Pamphlet Design Version 4 - Exterior Page

The interior page (see Figure 5.8) of the pamphlet holds the map with the route from the SFA center to the location clearly labeled. This map includes a number that corresponds to a landmark location in the order that one would encounter this landmark along the best route, which is blue on the map. The intent was that matching the numbers to the landmarks would improve participants' recognition of the numbered landmarks as they navigate along the route.

The pamphlet seen in Figure 5.9 is like the previous, however, we added unique colors to each of the landmark numbers to help participants work to improve their color recognition skills, like one of the exercises from the physical activity workshop we observed. We also felt that the colors add a fun aspect to the pamphlet and made it more engaging and interesting for its users without it being overwhelming.

The team used an iterative design process and developed each pamphlet based on the sponsor's feedback, data collection results, and the usability needs of participants and caregivers.

During each stage of the revision process, the team aimed to improve the content, usability, and clarity of the pamphlets.



Figure 5.8: SFA Pamphlet Design Version 4 - Interior Page



Figure 5.9: SFA Pamphlet Design Version 5 – Interior Page

5.3 – Pamphlet Evaluations

The team used the results from the pamphlet feedback survey to integrate the input of eight staff members into the final deliverables (see Appendix K). Staff gave the team ways to improve the pamphlets instructions, landmarks, and the folding style.

We asked staff to rank the text on the pamphlet from a scale of 1 to 10 and found that text averaged the lowest score (6.57) on the Likert Scale survey question (C3). On this scale 10 meant staff would not make any changes, and 1 meant the category needs a complete rework. Based on staff's open-ended responses, they were pleased with the overall amount of text, font choice, and the size of text. Four out of eight respondents suggested making instructions more precise, specifically when referring to landmarks and directions when leaving the center. Another suggestion that appeared five times was including street names on the pamphlet. Not only does this give another reference point to the user, but it allows them to ask for help if they get lost along the route.

Using the same Likert Scale, the symbols on the pamphlet received an average score of 7.43, and colors received the highest score (9.43) on the Likert Scale (C3 and C4). Staff generally agreed that the colors added a fun and engaging element to the pamphlet. Issues regarding the symbols were primarily about using landmarks that are not permanent, such as trees, or the colors of canopies on buildings. Staff were concerned that if these changed after our time in Greece the pamphlets would no longer be practical. The team retook pictures of landmarks to ensure that they included permanent structures to account for this. Another addition the team implemented based on staff feedback was a symbol for the destination, including congratulations to the participants for arriving. This reflects the positive reinforcement method the team observed employees using during the workshops.

Additional feedback from staff included the formatting and size of the pamphlet. Most staff found the medium-sized pamphlet (printed on A3 Paper) to be the most practical (see Figure 5.10). Two survey responses also recommended designing a pamphlet in a gate fold style instead of trifold. This format allows the user to view the instructions, the map, and match the symbols without flipping between folds (see Figure 5.11). The team did not implement the gate fold style, as having the entire map on the inside panels with fold-over instructions fit the trifold style better. Overall, the feedback was consistent across responses giving the team specific areas of the pamphlet to improve.

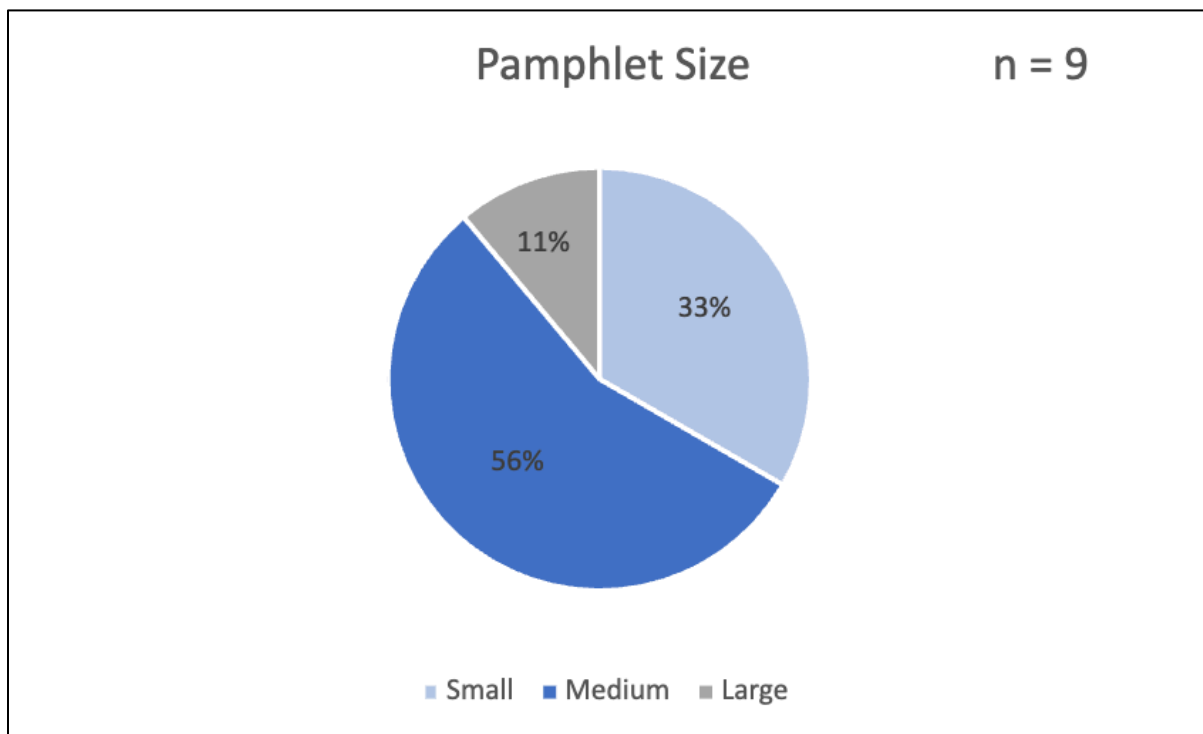


Figure 5.10: Pamphlet Size Staff Responses

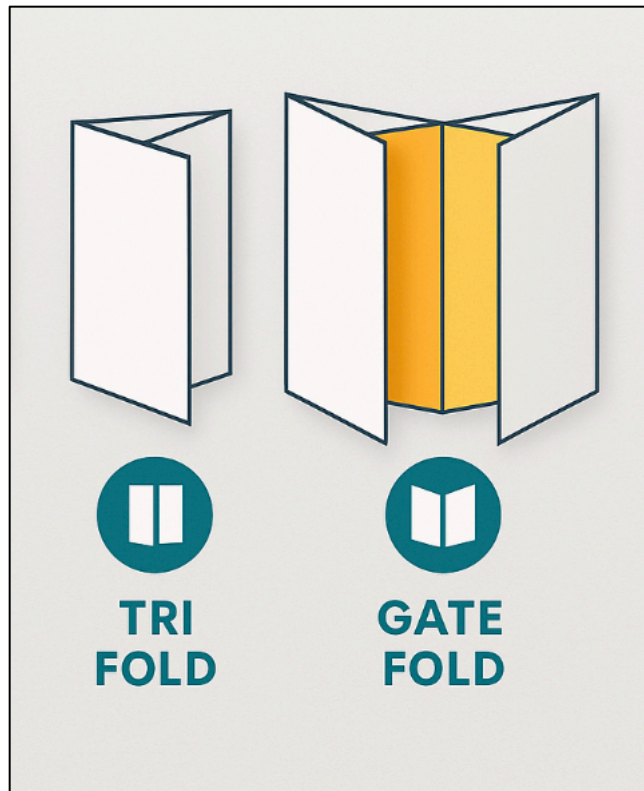


Figure 5.11: Different Pamphlet Formats (Triboro Printing, n.d.)

The information from both survey and interview responses provided the team with a narrower scope of challenges and locations to focus on when developing informative accessibility materials. These findings reinforced the teams' observations, the impact of local perspectives, and highlighted the most prominent barriers affecting accessibility in the neighborhood.

5.4 - Final Pamphlet Design

For our final pamphlet design, we worked to make all the improvements that came out of our feedback survey. First, we changed the landmarks from circles to squares. This change allowed us to make the landmarks larger and more visible, making the pamphlet more user-friendly to someone with a cognitive disability. The team added symbols for wheelchair inaccessibility and noise congestion on the map to warn users of obstacles in those areas. Five

survey respondents requested that the pamphlet include street names in case a participant gets lost. We added street names to the streets along the route and on larger nearby roads. Next, we modified our numbering system so that each location was a different color, number, and shape. This enables participants to have more than one scheme for matching the landmarks to their location on the map. Additionally, this modification can serve to improve different recognition skills. The final change we made to the design of the pamphlet was adding a gold star and an image of the destination as a way of congratulations upon arrival. The final pamphlet uses more concise instructions, with easier wayfinding cues and landmarks (see Figure 5.12 and Figure 5.13).

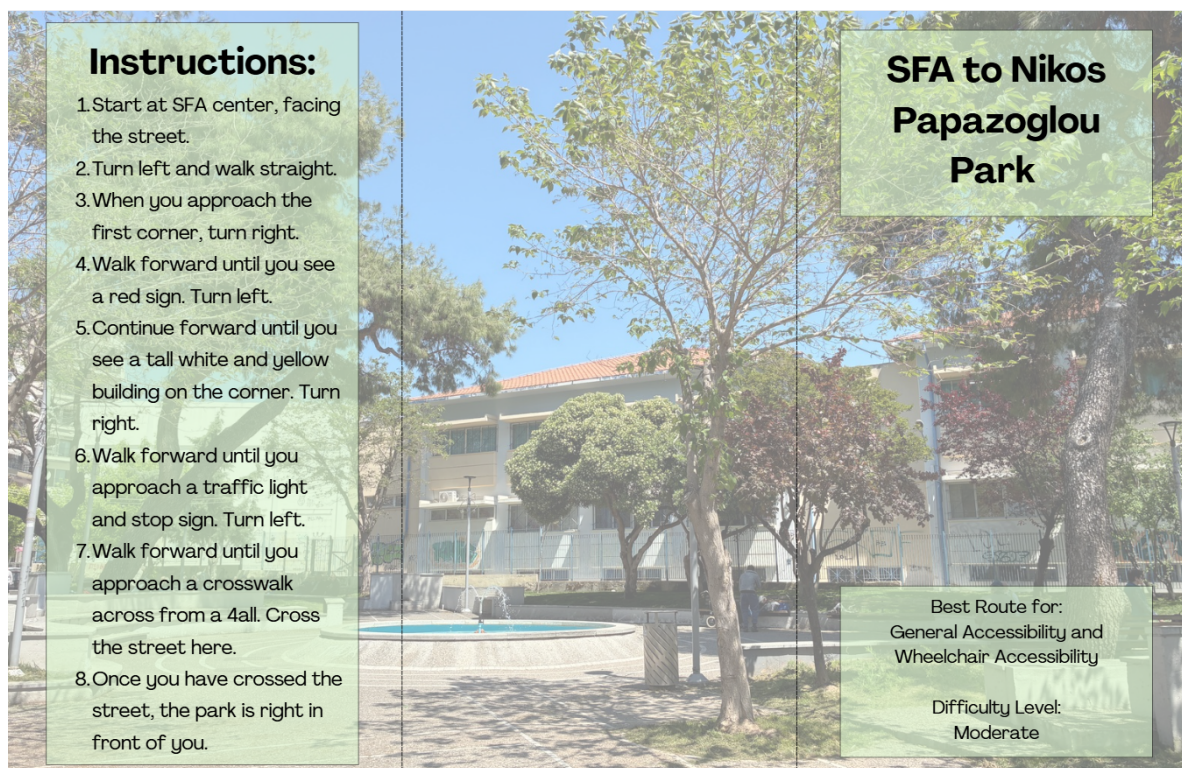


Figure 5.12: Final Pamphlet Exterior Page



Figure 5.13: Final Pamphlet Interior Page

For the final deliverables, the team created a series of six pamphlets, including five that showcase accessible routes to frequently visited locations and one that promotes accessibility awareness. Figure 3.2 shows the five locations featured in the pamphlets. These locations represent places that participants frequently visit and can access on foot from the center. Because the intended audience for these deliverables is Greek speakers, the team worked with on-site research assistants to complete the initial translations for each pamphlet. When presenting the final deliverables to the sponsor, the team reviewed each translation again to ensure accuracy. Figures 5.14 and 5.15 show an example of one of our final deliverables with the full Greek translations.



Figure 5.14: Final Greek Pamphlet for the Nikos Papazoglou Park (Exterior)

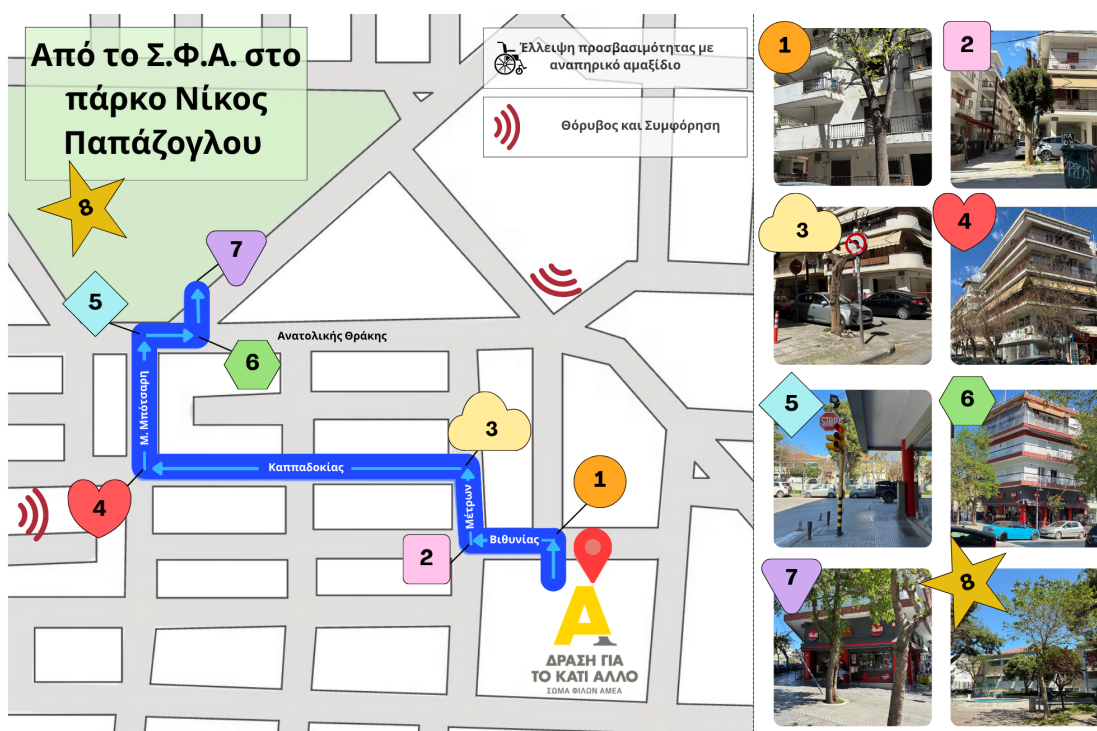


Figure 5.15: Final Greek Pamphlet for the Nikos Papazoglou Park (Interior)

The team also created a pamphlet to address the lack of awareness surrounding disability and accessibility in the neighborhood around the center. As previously mentioned, the team noticed many accessibility barriers that stem from society, such as people parking their cars on the sidewalks or staring at individuals with disabilities. People might not realize the implications of their actions, which is something we wanted to address. The front cover of the pamphlet shows the Drasi Gia to Kati Allo logo. The back of the pamphlet includes a QR code and link to their website so people can easily access more information about the organization. We also included a small pin of where the center is located to show local businesses where they are located. The inside fold explains why accessibility matters for both local businesses, people with disabilities, and society. The interior of the pamphlet explains who SFA is along with their core values, what accessibility looks like, and simple ways people can make a difference. Figures 5.16 and 5.17 show the awareness pamphlet in English, while Figures 5.18 and 5.19 show the final Greek pamphlet that was provided to the center. The hope for this pamphlet is for it to be distributed to local businesses around the center to improve awareness about SFA and about accessibility to make the community a more inclusive place for everyone. All six final English and Greek pamphlets can be seen in Appendix L and Appendix M respectively.



Figure 5.16: Awareness Pamphlet (Exterior)

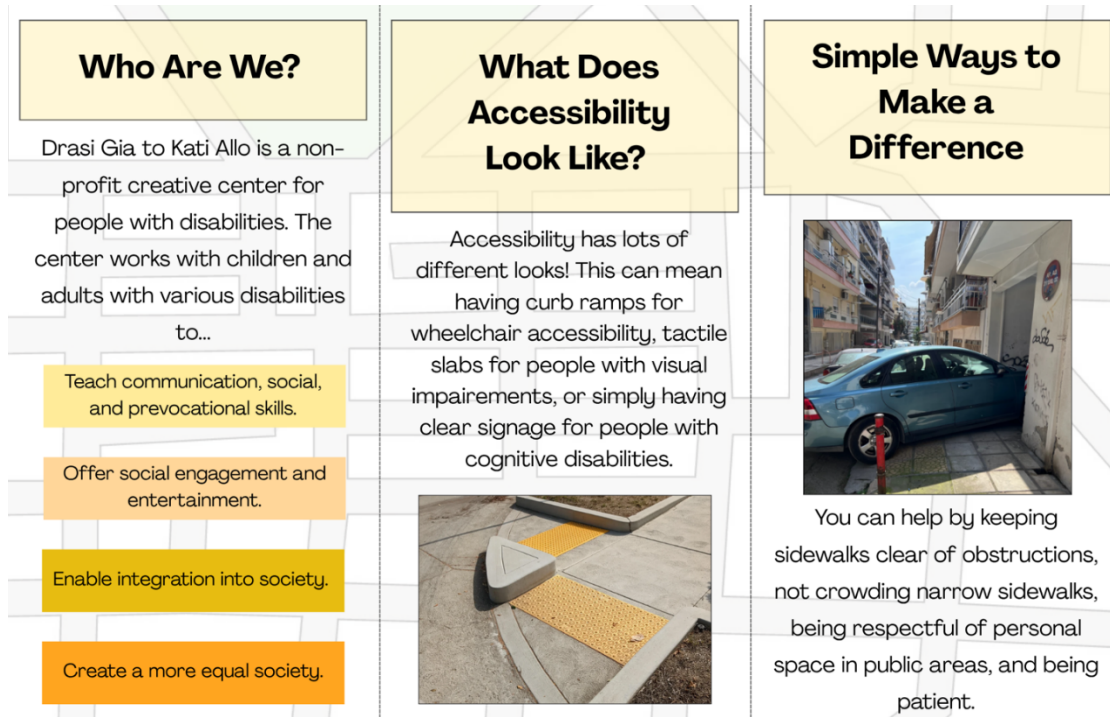


Figure 5.17: Awareness Pamphlet (Interior)

Γιατί η Προσβασιμότητα έχει σημασία

- Οι προσβάσιμοι χώροι προσελκύουν περισσότερους πελάτες.
- Η συμπερίληψη βοηθά τα άτομα να νιώθουν ότι ανήκουν κάπου και ενδυναμώνει τις κοινότητες.
- Μικρές αλλαγές επιτρέπουν στα άτομα να περιηγηθούν στον χώρο σας αυτόνομα.
- Τα περιβάλλοντα χωρίς αποκλεισμούς μειώνουν τη σύγχυση και βελτιώνουν τη συνολική εμπειρία.

Η προσβασιμότητα μάς ωφελεί όλους!

Σκανάρετε τον κωδικό QR ή επισκεφθείτε την ιστοσελίδα για να μάθετε περισσότερα



<https://drasigiatokatiallo.gr>



Δημιουργώντας μια πιο προσβάσιμη Θεσσαλονίκη

Στηρίζοντας τη Συμπερίληψη με τη “Δράση για το Κάτι Άλλο”



ΔΡΑΣΗ ΓΙΑ ΤΟ ΚΑΤΙ ΑΛΛΟ

ΣΩΜΑ ΦΙΛΩΝ ΑΜΕΑ

Μικρές αλλαγές στις επιχειρήσεις σας μπορούν να κάνουν μεγάλη διαφορά!

Figure 5.18: Final Awareness Pamphlet in Greek (Exterior)

Ποιοι είμαστε

“Η Δράση για το Κάτι Άλλο” είναι ένα μη κερδοσκοπικό Σωματείο με σκοπό να δημιουργήσει κάτι ισότιμο και διαφορετικό στο επίπεδο της φροντίδας των ανθρώπων με αναπηρία. Το ΚΔΑΠΑμεΑ υποδέχεται παιδιά, εφήβους και ενήλικες με διάφορες αναπηρίες με σκοπό να....

προάγει επικοινωνιακές, κοινωνικές και προ-επαγγελματικές δεξιότητες προσφέρει ευκαιρίες κοινωνικοποίησης και ψυχαγωγίας.

διευκολύνει την ένταξη των ΑμεΑ στην κοινωνία.

δημιουργεί μία κοινωνία με περισσότερη ισότητα

Πώς μοιάζει η Προσβασιμότητα στην πράξη;

Η προσβασιμότητα έχει πολλές διαφορετικές μορφές! Αυτό μπορεί να σημαίνει την ύπαρξη ραμπών στα πεζοδρόμια για την πρόσβαση αναπηρικών αμαξιδίων, οδηγών όδευσης (ανάγλυφων πλακών) για άτομα με οπτική αναπηρία, ή απλώς την ύπαρξη ξεκάθαρης σήμανσης για άτομα με νοητική αναπηρία.



Απλοί τρόποι για να κάνετε τη διαφορά



Μπορείτε να βοηθήσετε διατηρώντας τα πεζοδρόμια ελεύθερα από τα εμπόδια, αποφεύγοντας τον συνωστισμό σε στενά πεζοδρόμια, σεβόμενοι τον προσωπικό χώρο των άλλων σε δημόσιους χώρους και δείχνοντας υπομονή.

Figure 5.19: Final Awareness Pamphlet in Greek (Interior)

6.0 – Project Limitations

This project faced several limitations with regards to scope, data collection, and participation in surveys and interviews. These constraints influenced the team’s methodology and final deliverables. This chapter describes how the team adapted the project to a successful conclusion while pointing out how these limitations affected the overall outcome of the project.

6.1 – Data Collection Limits

Limited access to staff and participants, and the staff’s time constraints decreased interview and survey responses. The staff at SFA needed to be actively watching participants, which made them unavailable for full-scale interviews. Thus, the team adapted the neighborhood surveys by including open-ended questions to obtain more employee input without the need for staff to step away from their work to participate in interviews. During the preparatory term we anticipated having the opportunity to interview participants, but after arriving on site we determined that this was not possible. A mix of the language barrier and cognitive issues made it unfeasible to talk to the participants. These factors led to fewer responses in surveys and interviews than the team originally expected, resulting in smaller sample sizes.

Another limitation concerning surveys was the level of internet access in the center. The team initially created our survey in Qualtrics to make data collection and analysis more efficient but due to limited internet access, the team switched to a paper-based survey. This change slowed analysis, data collection, and introduced the possibility of duplicate surveys.

6.2 – Language Barrier

The language barrier between the team and the center’s employees added an additional challenge to project data collection that affected the number of interviews the team conducted

and our connection to staff and participants within the center. To respect the time of staff who did not speak English, the team decided to only interview those who could participate without a translator. Since our team does not speak Greek, communication with all staff was limited, which may have affected the detail and clarity of the responses gained in the surveys and interviews. The language barrier can make interviewees less comfortable, limiting the extent that respondents are willing to share their experiences.

6.3 – Final Deliverable

The limited internet access in the center constrained the format of the final deliverable. The sponsor requested paper pamphlets, because individuals at the center could not easily access an electronic version. While an electronic pamphlet offered convenient features, such as interactive icons, simple updates, and selectable routes, the team followed the sponsor's instructions to create five pamphlets in Greek that are practical for the needs of the center and its participants (see Appendices L and M).

7.0 – Conclusion

Over a seven-week period, the team mapped, analyzed, and evaluated the infrastructure around the SFA center. Because the team was not changing the physical structure of the built environment, we determined that the final deliverables needed to be pamphlets that displayed the most accessible route rather than one that is completely accessible. By creating a pamphlet that accounts for real environmental challenges, the team provided practical suggestions to the SFA center instead of ideal solutions.

The project provides the center with insights into their surrounding neighborhood and practical routes based on research and data analysis. While designing our pamphlets, the team discovered different challenges people with disabilities deal with in their day-to-day life. Social and physical barriers create environmental obstacles that make navigation difficult, highlighting the importance of accessible routes.

Our research allowed us to recommend the most accessible routes to the locations most frequented by the participants of the center. The pamphlets we produced not only identified the most ideal routes for participants of the center but also provided staff and participants with material that promotes learning and develops navigational skills. The team hopes that the pamphlets will become an alternate activity that strengthens connections between participants and caregivers, while fostering self-confidence and independence for participants navigating their community.

Bibliography

- Aidonis, D., Achillas, C., Tsolakis, N., & Mani-Papadimitriou, A. (2021). Assessment of Measures to Improve the Accessibility of People with Disabilities in Urban Areas. *2021 6th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)*, 1–4. <https://doi.org/10.1109/SEEDA-CECNSM53056.2021.9566246>
- Australian Federation of Disability Organisations. (n.d.). *Communication with people with disabilities*. <https://www.afdo.org.au/resources/communication-with-people-with-disabilities/>
- Boardman, L., Bernal, J., & Hollins, S. (2014). Communicating with People with Intellectual Disabilities: A Guide for General Psychiatrists. *Advances in Psychiatric Treatment*, 20(1), 27–36. <https://doi.org/10.1192/apt.bp.110.008664>
- Boland, G., & Guerin, S. (2023). Supporting Social Inclusion in Neighborhoods of Adults with Intellectual Disabilities: Service Providers' Practice Experiences. *Journal of intellectual disabilities* ., 27(2), 291–314. <https://doi.org/10.1177/17446295221085479>
- Brown, G., & Kytä, M. (2014). Key Issues and Priorities in Participatory Mapping: Toward Integration or Increased Specialization? *Applied Geography*, 95, 1–8. <https://doi.org/10.1016/j.apgeog.2018.04.002>
- CDC. (2024). Disability Barriers to Inclusion. *Disability Inclusion*. <https://www.cdc.gov/disability-inclusion/barriers/index.html>
- Christensen, K. M. (2017, July 28). Access to Urban Transportation System for Individuals with Disabilities. *Science Direct*. Retrieved January 21, 2026, from <https://www.sciencedirect.com/science/article/pii/S0386111217300444?via%3Dihub>

Commission, European. “The European Commission Calls on Greece to Fully Transpose the EAA.” *AccessibleEU*, 19 Mar. 2025, accessible-eu-centre.ec.europa.eu/content-corner/news/european-commission-calls-greece-fully-transpose-eaa-2025-03-19_en.

Desai, R. H., Hamlin, E., Eyler, A., Putnam, M., Stark, S., Doering, M., & Morgan, K. (2024). The Role of the Built Environment in the Community Participation of Adults Aging with Long-term Physical Disabilities: A scoping review. *Journal of Aging and Environment*, 38(3), 232–256. <https://doi.org/10.1080/26892618.2023.2175099>

Devkota, H., Poudel, S., Shrestha, M. K., et al. (2024). Examining the Association Between Perceived Stigma, its Correlates, and Restrictions in Participation Among Persons with Disabilities in Nepal: A cross-sectional study. *BMC Public Health*, 24, 1176. <https://doi.org/10.1186/s12889-024-18682-9>

Disability Horizons. Retrieved January 21, 2026, from <https://disabilityhorizons.com/2025/10/lessons-from-europes-new-accessibility-movement/>

Disability Statistics—Poverty and Income Inequalities. (n.d.). Retrieved February 1, 2026, from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Disability_statistics_-_poverty_and_income_inequalities

Dhakal, A., & Bobrin, B. D. (2023). *Cognitive deficits*. In StatPearls. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK559052/>

Edwards, D. (2025, October 20). Lessons from Europe's New Accessibility Movement.

Emerson, E., Mental Health Foundation & Foundation for People with Learning Disabilities. (2001). Learning Disabilities: The Fundamental Facts. *Foundation for People with Learning Disabilities*.

- Engel G. L. (1977). The Need for a New Medical Model: a challenge for biomedicine. *Science* (New York, N.Y.), 196(4286), 129–136. <https://doi.org/10.1126/science.847460>
- European Commission. (n.d.). *Brain research*. Retrieved March 19, 2026, from https://research-and-innovation.ec.europa.eu/research-area/health/brain-research_en
- European Commission. (n.d.). Persons with Disabilities in the EU. *European Commission*. https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/disability/persons-disabilities-eu_en
- Fink, A. (2003). *How to Sample in Surveys*. Thousand Oaks, CA. SAGE Publications, Inc. <https://doi.org/10.4135/9781412984478>
- García, J. C., Díez, E., Wojcik, D. Z., & Santamaría, M. (2020). Communication Support Needs in Adults with Intellectual Disabilities and Its Relation to Quality of Life. *International Journal of Environmental Research and Public Health*, 17(20). <https://doi.org/10.3390/ijerph17207370>
- Goris, J., Brass, M., Cambier, C., Delplanque, J., Wiersema, J. R., & Braem, S. (2020). The Relation Between Preference for Predictability and Autistic Traits. *Autism Research*, 13(7), 1144–1154. <https://doi.org/10.1002/aur.2244>
- Green, J. (2015, June 9). Sensory overload: How people with autism experience the world. American Society of Landscape Architects. <https://www.asla.org/news-insights/dirt/how-people-with-autism-experience-the-world>
- Saha, M., Saugstad, M., Maddali, H. T., Zeng, A., Holland, R., Bower, S., Dash, A., Chen, S., Li, A., Hara, K., & Froehlich, J. (2019). Project Sidewalk: A web-based crowdsourcing tool for collecting sidewalk accessibility data at scale. In *Proceedings of the 2019 CHI*

- Conference on Human Factors in Computing Systems* (pp. 1–14). Association for Computing Machinery. <https://doi.org/10.1145/3290605.3300292>
- Hardie, M. (2021, October 10). *Three aspects of health and healing: The biopsychosocial model in medicine*. Department of Surgery. <https://surgery.wustl.edu/three-aspects-of-health-and-healing-the-biopsychosocial-model/>
- Hatzakis, T., Alčiauskaitė, L., & König, A. (2024). The Needs and Requirements of People with Disabilities for Frequent Movement in Cities: Insights from Qualitative and Quantitative Data of the TRIPS Project. *Urban Science*, 8(1), 12. <https://doi.org/10.3390/urbansci8010012>
- Hsu, B.-M. (2020). Braille Recognition for Reducing Asymmetric Communication between the Blind and Non-Blind. *Symmetry*, 12(7). <https://doi.org/10.3390/sym12071069>
- Kanellopoulos, N. C. (2011, October). *Disability and Labour Force Participation in Greece: A Microeconomic Analysis* (Discussion Paper No. 121). Centre of Planning and Economic Research (KEPE). http://repository.kepe.gr/kepe/bitstream/20.500.12036/1250/1/KEPE_Papers_121.pdf
- Li, C., Ma, K. O. Y., Saugstad, M., Fujii, K., Delaney, M., Eisenberg, Y., Labbé, D., Shanley, J. L., Snyder, D., Thomas, F. P. P., & others. (2024). “*I never realized sidewalks were a big deal*”: A case study of a community-driven sidewalk accessibility assessment using Project Sidewalk. In *Proceedings of the ACM Conference on Human Factors in Computing Systems*. <https://doi.org/10.1145/3613904.3642003>
- Magoulis, G., & Trichopoulou, A. (2012). *Employment Status for People with Disabilities in Greece* (SSRN Scholarly Paper No. 2360086). Social Science Research Network. <https://doi.org/10.2139/ssrn.2360086>

- Mitropoulos, L., Karolemeas, C., Tsigdinos, S., Vassi, A., & Bakogiannis, E. (2023). A Composite Index for Assessing Accessibility in Urban Areas: A Case Study in Central Athens, Greece. *Journal of Transport Geography*, 108, 103566.
<https://doi.org/10.1016/j.jtrangeo.2023.103566>
- Movement for Change – Association of Friends of the Disabled. (n.d.). *Drasi Gia to Kati Allo* [Website]. <https://drasigiatokatiallo.gr/en/>
- National Autistic Society. (n.d.). *Sensory processing*. <https://www.autism.org.uk/advice-and-guidance/about-autism/sensory-processing>
- Narayanan, K., Edward, S., & Prasanth, K. (2025). Physical Disability and Its Global Impact on Quality of Life, *Activities of Daily Living, and Sleep Quality: A Narrative Review*. *Cureus*, 17(10), e95594. <https://doi.org/10.7759/cureus.95594>
- Nykodym, D. (2020). *Participatory Mapping of Disabled Access* (Master's thesis). Northern Arizona University. <https://legacy.nau.edu>
- Papanikolaou, K., Andreopoulos, A., Chatzitoliou, A., Gianasmidis, A., & Goble, C. (2022). Exploring Health and Premature Mortality of Wheelchair Users from a Medical and a Greek-Orthodox Perspective. *Religions*, 13(7), 636. <https://doi.org/10.3390/rel13070636>
- Project Sidewalk - Audit. (2024). Washington.edu. <https://sidewalk-chicago.cs.washington.edu/explore>
- Rodi, A. P. (2020). (De)signs for dignity: Towards an Enabling Environment in Athens, Greece. *Transactions of the Association of European Schools of Planning*, 4(1), 59–79. <https://doi.org/10.24306/TrAESOP.2020.01.006>
- Schmuck, R. (1997). *Practical Action Research for Change*. Arlington Heights, IL: IRI/Skylight Training and Publishing.

- Tentomas, L. (2024). “Something Was Going to Change”: The Narrative of Accessibility Barriers for Disabled People and Aspects of Contemporary History in Greece. *Journal of Literary & Cultural Disability Studies*, 18(1). <https://muse.jhu.edu/pub/105/article/918886/pdf>
- Theotokatos, G., Escorpizo, R., Angelopoulos, T. J., Chrysagis, N. K., Venieri, A., Bickenbach, J., Karteroliotis, K., Grammatopoulou, E., Skordilis, E., Theotokatos, G., Escorpizo, R., Angelopoulos, T., Chrysagis, N. K., Venieri, A., Bickenbach, J., Karteroliotis, K., Grammatopoulou, E., & Skordilis, E. (2024). The Sociodemographic Factors Related to Disability of Applicants of Welfare Benefits in Greece: A Cross-Sectional Survey Based on the World Health Organization Disability Assessment Schedule (WHODAS) 2.0. *Cureus*, <https://doi.org/10.7759/cureus.55614>
- Triboro Printing. (n.d.). *Most popular types of brochures and brochure folding options from half-fold to Z-fold*. <https://triboroprinting.com/most-popular-types-of-brochures-and-brochure-folding-options-from-half-fold-to-z-fold/>
- van Hoven, B., Fisher, M., & Munuera Garcia, J. (2024). Mapping the Inclusive City: Engaging People with Disabilities as Co-Researchers in Groningen (the Netherlands). *Community Development* (Columbus, Ohio), 55(6), 842–857. <https://doi.org/10.1080/15575330.2024.2310848>
- Weyn, S., et al. (2025). *Sensory processing sensitivity and overstimulation in daily life: An experience sampling method study*. *Frontiers in Psychology*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC12808265/>
- World Health Organization. (2011). *World Report on Disability*. WHO Press.

World Health Organization. (n.d.). *Environmental noise guidelines for the European region*.

<https://www.who.int>

Zaromatidis, K., Papadaki, A., & Gilde, A. (1999). A Cross-Cultural Comparison of Attitudes

Toward Persons with Disabilities: Greeks and Greek-Americans. *Psychological Reports*,

84(3 Pt 2), 1189–1196. <https://doi.org/10.2466/pr0.1999.84.3c.1189>

Zissi, Anastasia & Rontos, Costas & Papageorgiou, Dimitris & Pierrakou, Christine &

Chtouris, Sotirios. (2007). Greek Employers' Attitudes to Employing People with

Disabilities: Effects of the Type of Disability. *Scandinavian Journal of Disability*

Research. 9. 14-25. 10.1080/15017410600973234.

Appendix A – Workshop Observation Field Notes

Music Activity Workshop Observations:

Date: March 19th, 2026

Observers: Sammy and Aaron

Start Time: 11:09am

- Started with different movement activities to say hello
- Movement to music
 - Stretching to start
- A lot of individualism within the group
- Some participants are really into the activities and enjoy making noise/expressing themselves
- Others don't seem to want to engage
- Seems that everyone in this session has a cognitive disability rather than a physical disability
- Chairs in a circle
- 6 staff members to 9 participants
- Participation in small groups and side conversations and activities going on at the same time
- Some get loud when they are excited while others didn't speak the entire time
- Even those with cognitive disabilities lack some bodily control which might make physical travel difficult still
- Staff redirect behaviors by making participants repeat and change actions
- Most activities are one staff member to one participant in small groups
- Didn't give up on the participants who didn't initially want to participate
- Lots of positive reinforcement
- Staff member sitting in front of the door so participants can't try to leave
- Participants were curious to see what Aaron and I were doing during the activity
- Experimenting with making different noises/vocalization
- Very individualized within the session
 - Each participant has different ability levels and the staff makes sure to spend time with each participant
- Lots of communication is done with physical touch and movement by the staff
- Main session leader seems to also be using this as an opportunity to teach other volunteers/interns/staff members
- Played calm music in the background which seemed to calm a lot of the participants
- Next activity is to do what they see in a picture
- Participants encourage and get excited for each other
- Do they send photos to their parents?

End Time: 11:53pm

Figure A1: Field Notes from In Center Workshop (March 19th)

Music Activity Workshop Observations:

Date: March 19th, 2026

Observers: Sammy and Aaron

Start Time: 11:10am

- Music is playing
- Everything is colorful
- There are 6 participants, 1 volunteer, 1 instructor, and 4 caregivers
- Working on hard motor skills and teamwork
 - Balance
 - Recognitions
- There are many small goals in each activity
- There are many different stations (obstacle course setup)
- Caregivers are being very helpful and mindful to help each participant complete each activity
 - Giving different levels of support to different participants based on ability level
- There is lots of noise and distractions yet the participants are still very focused on the “game”
- Working on following instructions
- The participants are guided with every step (communicationally, many times)
- There is lots of positive reassurance from the caregivers
- Caregivers are less “gentle” and more direct
- Domino effect with behavior (the participants “vibe” off each other)
- Very bonded with their caregivers
 - Listening and engaging together during activities
- Caregivers motivate the participants
 - Reward system, promise of reward with good behaviors
 - Psychological theory
 - Behavior (if we do this together)
- Participants will observe instructors/works/caregivers “playing” the game
 - The participants are very excited
 - Cheering for everyone playing the game

End Time: 11:49pm

Figure A2: Field Notes from In Center Workshop (March 19th)

Walk to Park and Cafe Observations

Date: March 26th

Observers: Aaron, Hailey, John, Sammy

Start time: 9:15am

- One participant in wheelchair in front, pushed by staff
- Mostly 1-1 participant/caregiver
 - Sometimes 2-1
- Wheelchair couldn't fit on sidewalk because of tree
 - Had to turn around, go backwards, and walk in the street
 - Had to go all the way up and around to the opposite side of the street as everyone else because that was the only curb ramp
 - Everyone else waited patiently with the other staff
- Participants hand in hand with staff
 - Eliminates opportunity for distraction or running away
- Wheelchair got stuck in drainage gap in sidewalk
- 5 participants in total
- 5 staff/volunteers total
- One participant plugged his ears the entire time (overstimulation)
- Staff stand in the middle of the street to stall traffic when they cross the street
- No ramps by park so the wheelchair went over the grass
- Arrival time at park: 9:30am
 - Should have been a 7 minute walk, took 15 minutes
- Park is gated so the staff can relax and not worry about participants wandering off
- Some participants just sat
- Staff try to engage participants by bringing them to the swings
- Cars parked everyone on both sides of the street so participants have to maneuver around the cars
- Caregivers play in the park to encourage the participants
- Participants cheer each other on
- Staff take photos often
- Participants get to kinda "do what they want" around the park
- Get reassurance/positive reinforcement when participating (going on swings/monkey bars)
- Trying to keep it fun and engaging
- Decompressed once we got here and just sat for a few minutes
- Music playing to help stimulation
- Snack break at 9:45am
 - Gathered everyone and sat them down
 - Wiped hands
 - Ate snack and drank water
 - Definitely hard to maintain entertainment/stimulation during snack break so one participant roamed around
 - Also served as a break for staff
 - After snack break everyone got engaged again

Figure A3: Field Notes from In Center Workshop (March 26th)

World Autism Day Collaborative Event for Disability Centers In Thessaloniki

Date: April 2nd, 2026

Observers: Aaron, Hailey, John, Sammy

Start Time: 11:15am

- Located at a local volleyball center
- Large space, plenty of bleacher seating
- SFA brought 7 participants and 3 staff members
- Probably around 30 participants in total across all of the different organizations
- Family and friends came to watch the event
- Elementary school class was also there, started as observers and then joined in on the games → similar to a best buddies program?
- Event began with a performance from an army band and then there were a lot of speeches in Greek
- The way the activities were set up, we assumed they were doing some sort of obstacle course but it was more like 3-4 stations that they rotated through
 - Painting
 - Bowling
 - Parachute with ball
 - basketball/obstacle course
- Overall very loud and potentially overstimulating environment
 - People were being loud and having a lot of fun
 - Basketballs were loud and flying everywhere
 - Upbeat music playing
 - Cheering from the crowd
- SFA only did the painting activity due to time constraints/strict schedule
- Interesting to see if/how they interact with people outside of the center
 - They didn't really interact with anyone but each other
- Also interesting to see how they navigate the bleachers because they were really steep and different from bleachers in the US

End Time: 11:51am

Figure A4: Field Notes from In Center Workshop (April 2nd)

Appendix B – Sample Observation Sheet

	Observation #	
	Observer	
	Date and Time	
	Location	
	Accessibility Issue	
	Disability Type Effected	
	Additional Notes	

Figure B1: Sample Observation Sheet with Photo on Left and Descriptions on Right

Appendix C – Neighborhood Survey

Neighborhood Survey

We are a group of students from Worcester Polytechnic Institute, Massachusetts, USA working on a collaborative project with Drasi Gia to Kati Allo to address the lack of inclusivity, accessibility and belonging for individuals with disabilities through neighborhood assessments. The purpose of this survey is to identify accessibility barriers in the neighborhood surrounding the Drasi Gia to Kati Allo Center and frequently visited businesses. This survey will take approximately five minutes to complete.

Your participation is completely voluntary, and you may withdraw at any time. You may also skip any question and continue the survey. Please remember that your answers will remain anonymous; no names or identifying information will be used. Your participation is greatly appreciated. Should you have any questions or concerns, we can be reached at gr-SFA-D26@wpi.edu or through our advisors, Professors Melissa Butler and Robert Kinicki at mbutler@wpi.edu and rek@wpi.edu, respectively. For more information about this research or about the rights of research participants, please contact irb@wpi.edu.

Do you consent to this survey?

- Yes
- No

C1. What is your role in the SFA community?

- Caregiver
- Employee
- Student/Intern
- Volunteer
- Other (Please Specify) _____

C2. Please rank the following locations based on how frequently you visit them each month with SFA participants. Place the letter next to the corresponding number (1 being most frequently, 8 being least frequently).

1. Aretsou _____
2. Cafe Juris Billiards and Bowling _____
3. Coffee Story _____
4. Library _____
5. Music Hall of Thessaloniki _____
6. Park (Next to Agios Therapontas Church) _____
7. Park (Next to The Fifth Beatle) _____
8. The Fifth Beatle _____

C3. Where have you noticed accessibility obstacles in the neighborhood surrounding SFA? Select all that apply.

- Crosswalks
- Grocery Store
- Hospital Doctors Office
- Park
- Pharmacy
- Public Transportation
- Restaurant
- Retail Store
- Sidewalks
- I have not noticed any obstacles

For questions 4 and 5, consider your top two most frequently visited locations, as identified in Question 2 (ranked 1 and 2).

C4. What key physical barriers do you try to avoid on your route to your destination? (Examples may include but aren't limited to narrow sidewalks, blocked crosswalks, or absence of ramps)

C5. What challenges for individuals with cognitive disabilities do you try to avoid on your route to your destination? (Examples may include but aren't limited to loud traffic or crowded spaces)

C6. What changes do you think could be made to the neighborhood to improve participants' sense of inclusion and community belonging?

Thank you for your response and for taking the time to participate.

Appendix D – Neighborhood Survey in Greek

Έρευνα για τη γειτονιά

Είμαστε μία ομάδα φοιτητών από το Worcester Polytechnic Institute, Μασαχουσέτη των Η.Π.Α., που δουλεύουμε σε ένα συνεργατικό πρότζεκτ με τη «Δράση για το κάτι άλλο», με στόχο της αντιμετώπισης της έλλειψης συμπερίληψης, προσβασιμότητας και του αισθήματος αποδοχής για άτομα με αναπηρίες, μέσω αξιολογήσεων των γειτονιών. Ο σκοπός αυτής της έρευνας είναι να εντοπιστούν τα εμπόδια προσβασιμότητας στη γειτονιά του κέντρου της «Δράσης για το κάτι άλλο» και σε επιχειρήσεις που επισκέπτεστε συχνά. Το ερωτηματολόγιο θα διαρκέσει περίπου πέντε λεπτά για να το συμπληρώσετε.

Η συμμετοχή σας είναι αποκλειστικά προαιρετική και μπορείτε να αποσυρθείτε οποιαδήποτε στιγμή. Επιπλέον, μπορείτε να προσπεράσετε οποιαδήποτε ερώτηση και να συνεχίσετε το ερωτηματολόγιο. Παρακαλώ, λάβετε υπόψιν σας ότι οι απαντήσεις σας θα παραμείνουν ανώνυμες. Κανένα όνομα ή καμία πληροφορία ταυτοποίησης δε θα χρησιμοποιηθεί. Η συμμετοχή σας εκτιμάται ιδιαίτερα. Σε περίπτωση που έχετε απορίες ή ανησυχίες, μπορείτε να μας βρείτε στο gr-SFA-D26@wpi.edu ή μέσω των συμβούλων μας, Καθηγητές Melissa Butler και Robert Kinicki στα mbutler@wpi.edu και rek@wpi.edu, αντίστοιχα. Για περισσότερες πληροφορίες σχετικά με την έρευνα ή τα δικαιώματα των συμμετεχόντων, παρακαλώ επικοινωνήστε στο irb@wpi.edu.

Συγκατατίθεστε στη συμμετοχή στην έρευνα ;

- Ναι
- Όχι

D1. Ποιος είναι ο ρόλος σας στη κοινότητα του SFA («Δράση για το Κάτι Άλλο») ;

- Φροντιστής
- Υπάλληλος
- Φοιτητής / Ασκούμενος
- Εθελοντής
- Άλλο (Παρακαλώ διευκρινίστε) _____

D2. Παρακαλώ κατατάξτε τις παρακάτω τοποθεσίες, με βάση τη συχνότητα που τις επισκέπτεστε κάθε μήνα με τους συμμετέχοντες του SFA. Τοποθετήστε τον αντίστοιχο αριθμό (το 1 είναι το πιο συχνό, το 8 είναι το λιγότερο συχνό).

1. Αρετσού _____
2. Καφέ Juris μπιλιάρδο και bowling _____
3. Coffee Story _____
4. Βιβλιοθήκη _____
5. Μέγαρο Μουσικής Θεσσαλονίκης _____
6. Πάρκο (δίπλα από την εκκλησία του Αγίου Θεράποντα) _____
7. Πάρκο (δίπλα από το μαγαζί «The Fifth Beatle») _____
8. The Fifth Beatle _____

D3. Που έχετε παρατηρήσει εμπόδια προσβασιμότητας στην γειτονιά γύρω από το SFA («Δράση για το Κάτι Άλλο») ;

- Διαβάσεις πεζών
- Σούπερ Μάρκετ
- Νοσοκομείο / Ιατρικό γραφείο
- Πάρκο
- Φαρμακείο
- Μέσα Μαζικής Μεταφοράς
- Εστιατόριο
- Κατάστημα λιανικής
- Πεζοδρόμια
- Δεν έχω παρατηρήσει εμπόδια

Για τις ερωτήσεις 4 και 5, σκεφτείτε τις δύο τοποθεσίες που δηλώσατε ότι επισκέπτεστε συχνότερα στην ερώτηση 2 (αυτές που κατατάξατε 1 και 2).

D4. Ποια βασικά φυσικά εμπόδια προσπαθείτε να αποφύγετε στη διαδρομή προς τον προορισμό σας ; (Τα παραδείγματα μπορούν να συμπεριλάβουν, αλλά δεν είναι περιορισμένα στα στενά πεζοδρόμια, μπλοκαρισμένες διαβάσεις ή στην απουσία ραμπών)

D5. Ποιες δυσκολίες για άτομα με νοητικές αναπηρίες προσπαθείτε να αποφύγετε στη διαδρομή για τον προορισμό σας ; (Τα παραδείγματα μπορούν να συμπεριλάβουν, αλλά δεν είναι περιορισμένα στον έντονο θόρυβο στα φανάρια ή σε συνωστισμένους χώρους)

D6. Ποιες αλλαγές θεωρείτε πως πρέπει να γίνουν στη γειτονιά για να βελτιωθεί η αίσθηση της συμπερίληψης και του ανήκειν σε μία κοινωνία ;

Ευχαριστούμε για τις απαντήσεις σας και τον χρόνο που αφιερώσατε.

Appendix E – Open Ended Survey Results

Questions:	Respondant 1:	Respondant 2:	Respondant 3:	Respondant 4:	Respondant 5:	Respondant 6:		Themes:
4. What key physical barriers do you try to avoid on your route to your destination? (Examples may include but aren't limited to narrow sidewalks, blocked crosswalks, or absence of ramps)	narrow sidewalks, blocked sidewalks, lack of crossings, lack of traffic lights, poorly maintained / damaged pavement	uneven surfaces (bumps), low curbs, sidewalks blocked by parked cars, lack of pedestrian crossings (without priority marking)	trees, potholes, dug-up/broken sidewalks	narrow sidewalks, poorly constructed crossings	in case of visual impairment: lack of audible signals at traffic lights, electric poles in the middle of the sidewalk (trees in the middle of the sidewalk), balconies at very low height, drivers who do not yield (even at crossings)	uneven sidewalks		sidewalks/surfaces (damaged/blocked)
5. What challenges for individuals with cognitive disabilities do you try to avoid on your route to your destination? (Examples may include but aren't limited to loud traffic or crowded spaces)	places with increased movement of vehicles, places where there is no signage, places with crowding / congestion.	many stimuli, inappropriate conditions (unsuitable due to poor layout of space/mechanics), lack of crossings, bad/negative behaviors, space is not properly organized for people to move around freely	people's behavior	crowding	strange looks from people, the unpleasant urban environment	narrow sidewalks, non-functional ramps at crossings		crowded/congested places that have many stimuli
6. What changes do you think could be made to the neighborhood to improve participants' sense of inclusion and community belonging?	more / better ramps, better accessibility in parks, better accessibility for people with visual impairments, crosswalks, friendly infrastructure for people with disabilities (PWD)	fix damaged sidewalks, install tactile paving for people with visual impairments, buttons at traffic lights for priority crossing, better street organization/decluttering, audible traffic signals, ramps everywhere, better driving behavior, people with visual impairments often do not feel safe because drivers do not follow proper driving behavior.	wider sidewalks without so many cars, so that we can walk more comfortably. Ramps for wheelchairs. Accessibility everywhere and no dangers or obstacles.	ramps, sidewalks, more parks with more space (and surrounding areas)	to create parks with lots of greenery or beautiful flowers, to build wide sidewalks, we people need to change ourselves, schools should be open to everyone or there should be true inclusion in education	larger and wider sidewalks are needed, as well as the installation of ramps everywhere and traffic lights with appropriate markings and signals to help people		need for wider sidewalks and ramps for wheelchair accessibility
Side notes:					"For the sun to come out, it takes lots of work"			

Figure E1: Open Ended Survey Results with Overarching Themes

Appendix F – Staff Interviews

We are students from Worcester Polytechnic Institute, Massachusetts, USA working with Drasi Gia to Kati Allo to address the lack of accessibility, inclusivity, and belonging for individuals with disabilities through neighborhood assessments. We are conducting interviews to explore the level of awareness, attitudes, and interactions that business owners and non-disabled individuals have with people with disabilities in the radius surrounding the Drasi Gia to Kati Allo Center.

This interview will take approximately 10 minutes. Your participation is completely voluntary, and you may stop the interview at any time or refuse to answer any questions that we ask. This interview is confidential—no names or identifying information will appear in any project reports or publications unless you have explicitly agreed to have your name published.

With your permission, we will be recording this interview and using the recording for transcription purposes. Should you have any questions or concerns upon completion of this interview, we can be reached at gr-SFA-D26@wpi.edu or through our advisors Melissa Butler and Robert Kinicki at mbutler@wpi.edu and rek@wpi.edu, respectively. For more information about this research or about the rights of research participants, please contact Ruth McKeogh irb@wpi.edu.

Do you consent to this interview?

Do you consent to having this interview recorded?

Interview Questions:

- F1. Can you briefly describe your role in the SFA community?
- F2. How does the built environment influence accessibility both physically and cognitively?
- F3. What barriers, both physical and cognitive, might someone with a cognitive disability face that someone might not think of?
- F4. What features make a route most ideal and/or accessible when traveling with participants?
- F5. What kinds of information would be important to have on our pamphlet to make it easily accessible for participants and caregivers?
- F6. How does having clearly mapped accessible routes support the participants and caregivers of the SFA community?

Appendix G – Staff Interview Transcription

Sammy Scampoli04:36:44

Okay, we have to start by reading our, like, little consent thing, so I'll just kind of skim through it. Were students from WPI working with SFA to address the lack of accessibility, inclusivity, and belonging for individuals with disabilities? Through neighborhood assessments we're conducting interviews to explore the level of awareness, attitudes, and interactions that business owners and non-disabled individuals have with people with disabilities in the radius around the center. The interview will take approximately 10 minutes. Your participation is completely voluntary, and you may stop the interview at any time, or refuse to answer any questions that we ask. The Interview is confidential, so no names or identifying information will appear in, our report or publication unless you have explicitly agreed to have your name published. With your permission, we'll be recording this interview and using a recording for transcription purposes and if you have any issues or questions, you can reach out to us, Professor Butler, Professor Kinicki.

Do you consent to this interview?

Interviewee Computer 4:37:52

Person 1

Mm-hmm

Person 2

Yes.

Sammy Scampoli04:37:56

And then, do you consent to having this interview recorded so we can transcribe it?

Interviewee Computer 4:38:01

Person 1

Yes.

Person 2

Yes.

Person 1

Is it okay if we do it at the same time?

Sammy Scampoli04:38:08

Yeah. That's fine.

Interviewee Computer 4:38:09

Person 1

Okay.

Perfect, cool. We have a problem with the internet connection, but we hope it is okay.

Sammy Scampoli04:38:22

It's okay. So our first question is, can you each describe your role in the SFA community?

Interviewee Computer 4:38:23

Person 1

Okay.

Yes. Can I start?

Person 2

Of course.

Person 1

Thank you. Okay, my role in SFA. My role is a combination of things that, are about communicating the purposes and the philosophy of SFA to the local community and academic community. More specifically, my role is to have presentations about SFA to universities or other educational institutions in order to say to the world what we're doing here, and attract people who would like to be volunteers. Another thing in my role is to go to schools of primary and middle school and high school to have a educational program about disability and inclusion and volunteer.

Being a volunteer in the place, and it's a program that is basically a discussion between me, which I'm the coordinator, and to the students in order for them to have a space to ask things and speak about their thoughts about disability. So it's more like raising awareness about disability.

Another role that I'm having is to coordinate students from the United States, or other countries to have their projects here, and I'm more like a mentor to them.

Another thing that I'm doing is that I try to coordinate some events that we're having. Again, about raising awareness to community, like participating in festivals.

And the last thing I'm doing is that I am the European Soldier Corps mentor for some European volunteers who are visiting.

So I try to be a person next to them to solve problems. I used to be a volunteer in the place, now I'm one of the staff members, and I'm working in the morning shift.

Sammy Scampoli04:40:32

Perfect.

Interviewee Computer 4:40:32

Person 2

Perfect. Okay, me, I am a social worker here in the morning shift, and I'm in charge of, everyday program. I do the communication with, participants, families, or some organizations. I arrange some visits outside, to the park for coffee. Um, what else?

Person 1

You are responsible for their physical well-being of the participants.

Person 2

I'm also in charge of explaining and giving to volunteers and people that do their clinical practice here, how we work, the rules, all this stuff, how we organize. Coordinator, yes, coordinator. That's all.

Perfect.

Sammy Scampoli04:41:51

Perfect. How would you say that the built environment influences accessibility for both people with physical and cognitive disabilities?

Interviewee Computer 4:42:04

Person 1

You mean, we want to be clear about this, that we understood the question. How the things around us, in an architectural point of view, are built, and they affect how accessible they are.

Sammy Scampoli04:42:18

Yes.

Interviewee Computer 4:42:18

Person 1

Okay, I personally believe that the way our world is built is 100% how accessible we makes things,

which means that if, for example, I am a person in a wheelchair, and the world around me has been built for people who are walking I can have accessibility there, or I have very limited accessibility.

If we speak practically, right now, things in our neighborhood are not in the best situation that they could be. We have a lack of ramps, there are no ramps in the area, or very few, and sometimes the drivers are parking their cars there, so it's very hard to use them. Or the ramps are not built right, which means that maybe they have some centimeters that are far from the ground and the bed. Pedestrians or pedestrians.

Then the pavement, but the place that the pedestrians are using, how do we call this?

This thing and the street, yes, the sidewalk and the road for the cars have maybe 2 or 3 centimeters distance, and that can cause a huge problem to me that I'm using the wheelchair or to the caregiver.

Sammy Scampoli04:43:29

Like, the sidewalk?

Interviewee Computer 4:43:42

Person 1

Who uses the wheelchair if we are lucky, I would say that we don't have this, squares for the blind people to use them. Maybe in very central roads. And this also means that we don't have, in traffic lights, the noise and the sound for them to cross the road for blind people.

I would say about, other physical problems, I don't know, I guess maybe the roads are not built the best, and they have some paddles, and maybe during the rainy days, we have a huge problem.

Just passing the road, even if we're walking people, or people in wheelchairs... I don't know what else.

Also, the quality of the roads and the sidewalks, and All the staff are very pure... pure work, and we don't have the basic for the people that don't have a disability. So, imagine, a person with disability, how it can be difficult for them.

Also, another thing is that we don't really have labels frequently that they might say, go this way, that this is a very specific landmark that you can visit, or this is very rare, and only in most central places that you will find, for example, go to the White Tower in 1 kilometer, but that's not something that happens in the local neighborhoods.

I don't know, you also figured out yourself when we went for the coffee the last time, that even outside of the buildings we might have trees and no ramps, for example, which is very bad. And ramps are not something that exists in every sidewalk. Maybe we will find one in a place that maybe is blocked.

Oh, that's a problem.

Sammy Scampoli04:46:00

And then, what would you say would be, like.

Interviewee Computer 4:46:01

Person 1

I don't know what you say would be, like, a challenge for us.

Sammy Scampoli04:46:03

A challenge for cognitive disability.

We wouldn't necessarily think of.

Interviewee Computer 4:46:14

Person 1

What could be a challenge for people with cognitive disabilities?

Oh...Uh...I don't know. Um... maybe... the sounds, the colors of the signs... Uh... other people walking nearby...

Person 2

Yeah, distractions and stimuli from the environment that don't necessarily help them to go to there destination. The traffic, like, the sounds of the streets, the colors of the signs you said.

Yes.

Yeah. I'm not sure about this.

Sammy Scampoli04:47:13

No, that all makes sense, that's perfect. Um...

Interviewee Computer 4:47:14

Person 1

Yeah, that's correct.

Um...

Sammy Scampoli04:47:18

And then, when you guys go out in a group, what do you look for in, the streets you're taking that make them, like easily and more easy for you guys to navigate, I guess. Like, with your group?

Interviewee Computer 4:47:35

Person 1

If every road had a ramp, that would be amazing. Uh, to begin with. The sidewalks, if they had enough space, like, enough space to cross, maybe not just the wheelchair, but.

Sammy Scampoli04:47:44

Mm-hmm.

Interviewee Computer 4:47:51

Person 1

As a caregiver with my participant to be held like this enroll, or maybe me as a caregiver with another version to be, like. You have two people on board. Maybe like rest areas like benches to have some rest, because maybe overstimulation may happen, and I need some time to relax a bit and then continue.

Person 2

Yes, less noise, basically the opposite that we were saying previously. Less noise could be easier.

For cognitive disabled people.

Sammy Scampoli04:48:24

Okay.

Interviewee Computer 4:48:29

Person 1

Ah, and maybe something like, um, the symbols, as (speaker 2) said, if they could be more visible for everyone.

Maybe.

Sammy Scampoli04:48:50

Um, what kinds of information would you think is really important to have on our pamphlet.

Is easily understandable and accessible for both the caregivers and the participants if we were to try and make it more interactive.

Interviewee Computer 4:49:08

Person 1

Let's say that we're holding a pamphlet as a participant. What I told you in the last time is most probably that we will use this pamphlet both the caregiver with the participant, let's say. I would definitely say something easy to read. Which means the font of the letters that could be very big enough for me to read.

And maybe even contrast of the background and the color of the letters, which means that maybe, for some people, it would be easier to be read. If the letters were white and the background would be another color, or maybe that could be too much information, so not for everyone. Color in the letters, in the background, just white. Um... very, very simple language, very playful also, which means that if I could make it like a challenge or something like a map. And I could see a symbol, and I recognize that this symbol means go straight, or turn left, turn right. That would be something like a game to me to read it and have a motivation to follow the game of it, in order to go to my destination.

Person 2

So, yes, easy language, very easy to read, big letters to understand, very few instructions, and maybe some kind of reward, like, congrats, now let's go to the next step, but I'm not sure about this. And, ah, and something like, we're... we are here, and we can see that in order to orientate and see where we are. Like, we are here, and we have 360 degrees where we are, so you should see in front of you. This landmark, so I can understand that I'm going this way. And... I don't know, and that we said before, like, a solution. We find an obstacle. Okay, let's try to find 3 more ways to go there. Uh, but be careful, the one of them, it's, um, more noisy. Or be careful, this one, it has, uh... trees, I don't know, and children around the park, I don't know, something that is more practical.

Sammy Scampoli 04:51:44

Perfect. And then our last question is how would our pamphlet help support the participants and caregivers? Like, what is the overall goal for you guys? Throughout our work.

Interviewee Computer 4:52:02

Person 1

Generally, I would say that when someone gives you a tool, it's always useful when someone gives you some extra help in your work, which means that if we have something, we will figure out how we could use it. Practically. If we find something that is easy to use, practical. But it can stay here and, I don't know work somehow. I guess it's some kind of extra help, or maybe it could unlock some new skills that we don't know that our participants have, because sometimes when we are a caregiver, you don't leave the space for the participant to express, and maybe with this new tool, we will realize that, oh, this participant knows how to orientate, or this participant feels very stressed when a street that is overcrowded. It basically opens something new, but at the same time, it can be useful for the work that is already happening.

It's nothing like you will invent something crazy, but you will open many doors to access for us new things. It's very important for us to have something that easy with our work.

Person 2

When I have to...I go with some participants outside, and I will know which one is the best row to do it. I will be more calm, so I will be more supportive about other things that (speaker 1) said, about. Um, what can they do? Outside, actual, and not be afraid of, uh... Been, um, inside an obstacle or whatever. It basically reduces stress for the people who organizes this, for the caregivers who know exactly where we're going, and that we are avoiding this route. That has a lot of obstacles, and also increases the self, um, like, perception of. Oh, I can do it! It's like a new game for me, for the participants, but I can go to the park with my mom. It's very nice if we have something like this, and in case, as you said, that you will share this pamphlet to the local businesses, it's also very important that they know where we are. It opens, again, a new door to have a network with the local community and, of course, make SFA more visible.

Sammy Scampoli04:54:43

Perfect! That's all we have. Thank you for your time.

Interviewee Computer 4:54:44

Person 1

Perfect. That's all I have.

 = limitations in accessibility

 = physical limitations in the neighborhood

 = cognitive issues in the neighborhood

 = things to look for when making our maps

 = ideas for the map

 = what the center wants to gain from our project

Appendix H – Pamphlet Feedback Survey

Pamphlet Feedback Survey

We are students from Worcester Polytechnic Institute, Massachusetts, USA working with Drasi Gia to Kati Allo to address the lack of inclusivity, accessibility and belonging for individuals with disabilities through neighborhood assessments. We are conducting this survey to gain insight into the general accessibility of the materials we have created. We wish to gain feedback on the layout, visuals, and overall information included in the pamphlet to fine tune the materials for use by participants, caretakers, and local businesses.

This survey will take less than 10 minutes. Your participation is completely voluntary, and you may refuse to answer any question that we ask and choose to leave the group at any time. This survey is confidential—no names or identifying information will appear in any project reports or publications unless you have explicitly agreed to have your name published.

Should you have any questions or concerns upon completion of this interview, we can be reached at gr-SFA-D26@wpi.edu or through our advisors Melissa Butler and Robert Kinicki at mbutler@wpi.edu and rek@wpi.edu, respectively. For more information about this research or about the rights of research participants, please contact Ruth McKeogh irb@wpi.edu.

Do you consent to this survey?

☐ Yes

☐ No

H1. What is your role in the SFA community?

☐ Caregiver

☐ Employee

☐ Student/ Intern

☐ Volunteer

☐ Director

H2. How would you rate the level of content on the pamphlet? (rate on a scale from 1-10 with 1 being very difficult to understand and 10 being very clear).

H3. Are the colors overwhelming/distracting? (Rate on a scale from 1-10 with 1 being very distracting and 10 being not distracting at all).

H4. Are the symbols and visuals easy to understand/see? (Rate on a scale from 1-10 with 1 being very distracting and 10 being not distracting at all).

H5. Is the text easy to understand? (Rate on a scale from 1-10 with 1 being very distracting and 10 being not distracting at all).

H6. Which size of the pamphlet do you like the best?

_____ small

_____ medium

_____ large

H7. Provide any comments you have on the pamphlet.

H8. Do you wish the pamphlet had any other information?

Έρευνα ανατροφοδότησης ενημερωτικού φυλλαδίου

Είμαστε φοιτητές από το Worcester Polytechnic Institute (WPI), Μασαχουσέτη, ΗΠΑ και συνεργαζόμαστε με τη “Δράση για το Κάτι Άλλο” για την αντιμετώπιση της έλλειψης συμπερίληψης, προσβασιμότητας και το ανήκειν για τα άτομα με αναπηρίες, μέσω αξιολογήσεων γειτονιάς. Διεξάγουμε αυτή την έρευνα για να αποκτήσουμε εικόνα για τη γενική προσβασιμότητα του υλικού που έχουμε δημιουργήσει. Επιθυμούμε λάβουμε ανατροφοδότηση για τη διαρρύθμιση, τα οπτικά στοιχεία και τις συνολικές πληροφορίες που περιλαμβάνονται στο φυλλάδιο για να ρυθμίσουμε με ακρίβεια το υλικό για τη χρήση από τους συμμετέχοντες, φροντιστές και τοπικές επιχειρήσεις.

Αυτή η έρευνα θα διαρκέσει λιγότερο από 10 λεπτά. Η συμμετοχή σας είναι εντελώς εθελοντική και μπορείτε να αρνηθείτε να απαντήσετε σε οποιαδήποτε ερώτηση που θέτουμε και να επιλέξετε να αποχωρήσετε από την έρευνα ανά πάσα στιγμή. Αυτή η έρευνα είναι εμπιστευτική, κανένα όνομα ή στοιχεία ταυτοποίησης δεν θα εμφανιστεί σε οποιοδήποτε αναφορές έργου ή δημοσιεύσεις, εκτός εάν έχετε συμφωνήσει για την δημοσίευση του ονόματός σας.

Σε περίπτωση που έχετε ερωτήσεις ή ανησυχίες κατά την ολοκλήρωση αυτή της συνέντευξης, μπορείτε να επικοινωνήσετε μαζί μας στο gr-SFA-D26@wpi.edu ή μέσω των συμβούλων μας, Melissa Butler και Robert Kinicki στα mbutler@wpi.edu και rek@wpi.edu αντιστοίχα. Για περισσότερες πληροφορίες σχετικά με αυτή την έρευνα ή σχετικά με τα δικαιώματα των συμμετεχόντων στην έρευνα, παρακαλούμε επικοινωνήστε με τη Ruth McKeogh στο irb@wpi.edu.

Συναινείτε σε αυτή την έρευνα;

____ Ναι

____ Όχι

H1. Ποιός είναι ο ρόλος σας στην κοινότητα της “Δράση για το Κάτι Άλλο”?

____ Φροντιστής

____ Εργαζόμενος

____ Φοιτητής/Ασκούμενος

____ Εθελοντής

____ Διευθυντής

H2. Πως θα βαθμολογούσατε το επίπεδο του περιεχομένου του φυλλαδίου; (Βαθμολογήστε σε κλίμακα από το 1 έως το 10, με το 1 να είναι πολύ δύσκολο στην κατανόηση και το 10 να είναι πολύ σαφές).

H3. Είναι τα χρώματα υπερβολικά ή ενοχλητικά; (Βαθμολογήστε σε κλίμακα από το 1 έως το 10, με το 1 να είναι πολύ ενοχλητικά και το 10 να είναι καθόλου ενοχλητικά).

H4. Είναι τα σύμβολα και τα οπτικά στοιχεία εύκολα στην κατανόηση και ορατά;
(Βαθμολογήστε σε κλίμακα από το 1 έως το 10, με το 1 να είναι πολύ δύσκολο στην κατανόηση και το 10 να είναι πολύ εύκολο στην κατανόηση).

H5. Είναι το κείμενο εύκολο στην κατανόηση; (Βαθμολογήστε σε κλίμακα από το 1 έως το 10, με το 1 να είναι πολύ δύσκολο στην κατανόηση και το 10 να είναι πολύ εύκολο στην κατανόηση).

H6. Ποιό μέγεθος του φυλλαδίου προτιμάτε;

_____ Μικρό

_____ Μεσαίο

_____ Μεγάλο

H7. Προσθέστε τυχόν σχόλια που έχετε για το φυλλάδιο.

H8. Θα θέλατε το φυλλάδιο να περιλαμβάνει και κάποιες άλλες πληροφορίες;

Appendix I – Observation Analysis Slideshow

Link to Observation Photos and Observation Sheets:

<https://docs.google.com/presentation/d/15409LVDos2Y88el3o03FHx4w8z3BIZzImBedNPvIJNQ/edit?usp=sharing>

Appendix J – Obstacle Count Observation Sheet

Link to Observed Obstacle Count Spreadsheet:

https://docs.google.com/spreadsheets/d/1g-60isxYpw6_HEwDqNYg8rdN5jNSGsRPhzdSGkXxnYQ/edit?usp=sharing

Appendix K – Open Ended Feedback Survey Results

Response 1

- colors are good
- switch pink and purple because they are too similar
- picture of the park as a reward (#8?)
- congratulations at the end
- map is understandable
- text is 6-7/10
 - more precise, make sure you say what you are facing first so that you know that when you turn left and right you are going the correct way
 - look up different way finding cues/how to explain directions to people with cognitive disabilities
 - short, and exact instructions only
 - more cues like "continue walking straight"
- medium size!!
 - medium is most practical, large is easiest to understand, small will get destroyed
 - change up some instructions
 - 4 folds? instead of 3

Response 2

- symbols are a 6, text has some mistakes
- small or medium
- prefer if you could write addresses instead of symbols incase someone doesn't know how to read
- add street names too
- difficult because he is left handed?

Response 3

- small size
- include street names
- check translations

Response 4

- 10/10 colors
- small size
- add names of the streets
- some landmarks aren't permanent
- add arrows on

Response 5

- large size
- bigger pictures is more understandable for someone with a cognitive disability

Response 6

- medium
- color and font and font size are perfect
- different landmark from trees
- squares instead of circles
- street names

Response 7

- symbols
- text is generally easy but can be more precise without having more words
- medium size!
- 4 folds instead of 3
- photo of the final destination at the last step
- if there are any areas of excessive stress and strain, include that

Response 8

- medium size
- match the text with the pictures
- add street names

Coding

----- = Precise instruction

----- = Add street names

----- = Change folding format

----- = Destination

----- = Translation Issues

----- = Permanent Landmarks

Appendix L – Final English Pamphlets

Editable Canva Link for English Pamphlets:

<https://www.canva.com/design/DAHG0eArhAU/RSb-Y-5L1Eu5zjEqsCKBzA/edit>

Downloadable PDF Link for English Pamphlets:

https://drive.google.com/file/d/1u3jTb79upcoJOjShkoB0Q_yL78A3z5_m/view?usp=sharing

Appendix M – Final Greek Pamphlets

Editable Canva Link for Greek Pamphlets:

<https://www.canva.com/design/DAHIJZzAOJs/fyQ4NJvP2DeTCrYNVJOecA/edit>

Downloadable PDF Link for Greek Pamphlets:

https://drive.google.com/file/d/1Sqez_xGVFQugIRjkh8L-u9bryesHdy5v/view?usp=sharing