# GIS-BASED MAPPING OF SPATIAL EXPERIENCES: CASE OF UNIVERSITY STUDENTS IN IZMIR

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# ABSTRACT


## GIS-BASED MAPPING OF SPATIAL EXPERIENCES: CASE OF UNIVERSITY STUDENTS IN IZMIR

This research investigates which factors affect the urban experiences of 18 to 25-year-old university students in Izmir. It focuses on factors such as gender, income, living with or without family, and lifetime in İzmir above or below three years. It investigates how these factors affect students' use of the city's socio-cultural areas, daily and general shopping areas, sports and outdoor activity areas, and outdoor eating and drinking areas. It also investigates the places in the city that students enjoy and are unenjoyable and why they enjoy or are unenjoyable. Aiming to go one step beyond the survey and trying to use the Qualitative GIS method, it tries to capture sketch maps and narratives in a single study by using spatial markings and open-ended questions in the survey, and while doing this, it uses Survey123, with an ArcGIS application. Research data were collected from 32 men and 58 women who were Izmir Institute of Technology students. The result of this study explains the urban experiences and city perceptions of university students in line with survey results and spatial markings. As a result, it develops suggestions and strategies for the design of activity areas by looking at the urban usage areas of the students.



**Keywords:** Urban Experiences, Urban Perception, Qualitative Geographic Information System, Youth, İzmir

# ÖZET

## MEKANSAL DENEYİMLERİN CBS TABANLI HARİTALANMASI: İZMİR'DEKİ ÜNİVERSİTE ÖĞRENCİLERİ ÖRNEĞİ

Bu araştırma İzmir'de 18-25 yaş arası üniversite öğrencilerinin kentsel deneyimlerini hangi faktörlerin etkilediğini araştırmaktadır. Cinsiyet, gelir, aileyle birlikte veya ailesiz yaşama, İzmir'de üç yıldan fazla veya altı yaşam süresi gibi temel faktörlere odaklanıyor. Bu faktörlerin öğrencilerin şehrin sosyo-kültürel alanlarını, günlük ve genel alışveriş alanlarını, spor ve açık hava aktivite alanlarını, açık havada yeme-içme alanlarını kullanımlarını nasıl etkilediğini araştırmaktadır. Ayrıca öğrencilerin kentte hoşlandıkları ve hoşlanmadıkları mekanları, neden hoşlanıp hoşlanmadıklarını da araştırıyor. Anketin bir adım ötesine geçmeyi hedefleyen ve Niteliksel CBS yöntemini kullanmaya çalışan ankette mekansal işaretlemeler ve açık uçlu sorular kullanarak kroki haritaları ve anlatımları tek bir çalışmada yakalamaya çalışır ve bunu yaparken Survey123'ü kullanır. ArcGIS uygulamasıyla. Araştırma verileri İzmir Yüksek Teknoloji Enstitüsü öğrencisi 32 erkek ve 58 kadından toplanmıştır. Bu çalışmanın sonucu üniversite öğrencilerinin kentsel deneyimlerini ve kent algılarını anket sonuçları ve mekânsal işaretlemeler doğrultusunda açıklamaktadır. Sonuç olarak öğrencilerin kentsel kullanım alanlarına bakarak etkinlik alanlarının tasarımına yönelik öneri ve stratejiler geliştirir.

**Anahtar Kelimeler:** Kentsel Deneyimler, Kentsel Algı, Niteliksel Coğrafi Bilgi Sistemi, Gençlik, İzmir

“Youth is happy because it has the capacity to see beauty. Anyone who keeps the ability to see beauty never grows old.”

**— Franz Kafka**

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# CHAPTER 1

# INTRODUCTION

This thesis focuses on the urban experiences of university students in the 18-25 age group. Young people constitute a significant part of the urban population, becoming an important target group for urban development. They are the most social group experiencing their cities on a larger scale, as they establish general relationships with the social, physical, and psychological features of the place they live in and are affected by these relationships. It is significant to explore young people's urban activity areas. Therefore, it becomes important to research young people's mobility patterns. By examining places that young people often avoid, want, or must visit, have no access to, or are restricted, we can reveal the meanings they attach to these places. This chapter explains the main lines of the thesis under three headings: the problem definition, the aim of the study/research questions, and the methodology. The chapter ends with a general structure of this study.

## 1.1. Problem Definition

The main subject of this thesis is how university students' urban experience shows differences among each other and how we explore these differences with the help of GIS-based sketch maps.

Rahimi et al. (2018) mentioned that urban experience is related to space involving people in a specific activity within a definitive context. People constantly interact with multiple locations in urban spaces such as homes, schools, libraries, public spaces, places of work, shopping malls, cafes, shops, restaurants, and cultural and recreational facilities, including museums, theaters, and sports centers (Alarasi et al. 2016; Gough 2008). Therefore, understanding the relationship between people and urban space is important because it gives information about the effects of space on people and the characteristics of interaction between people. Investigating urban experience according to socioeconomic and demographic status is crucial for understanding people. These factors

significantly influence their position within their families and society and how external influences shape their urban life patterns.

Urban experiences can be helpful starting points for examining various aspects of people's urban lives, and the methods used can show new ways of understanding these experiences in depth. Some researchers have used surveys and discussion forums on social media applications such as Facebook and Twitter to collect survey responses (Korson 2014; Lim et al. 2008; Luh Sin 2015 as cited in Ergler et al. 2016)). However, using GPS (Oliver et al. 2014), researchers were able to gather detailed spatial information on urban circulation. According to Ergler et al. (2016), some studies criticize for being reduced to simple spatial coordinates. For this reason, they began to combine with in-depth interviews. Mixed methodologies give good signals for the future and lead to new research areas.

Urban experiences of youth, specifically within the age groups of 18-25. Young people constitute a significant portion of the urban population, and it is essential to explore their mobility patterns to understand their urban dynamics comprehensively. By examining the places young people frequently avoid, desire to visit, or are restricted from accessing, we can uncover the unique meanings they ascribe to these locations (Langevang and Gough 2009).

Young people are more mobile and open to new experiences (Karadağ and Turut 2013). Young people are the most sensitive social group in terms of experiencing their region and the city on a broader scale because they establish general relationships with their places' physical and socio-psychological aspects and can be significantly affected by these relationships (Turan 2018). Additionally, young people are more open to new experiences and ideas than older adults. Their unique mobility needs (Zwerts et al. 2010) make them an important target group for initiatives promoting urban development and innovation (Ittelson 1978).

Young people are an important demographic for cities to attract and retain, as they represent the future workforce and leaders of the city (Karadağ and Turut 2013). According to Turan (2018), understanding what influences young people's use of space has become necessary, and working with young people is essential to achieve this goal. Urban planning and policymaking should consider young people's unique needs and perspectives to create more livable, sustainable, and equitable cities and develop policies and interventions that support their well-being, social mobility, and perceptions of the

city and influence their future decisions (Zwerts et al. 2010; Humberto et al. 2022; Gonçalves and Malfitano 2020; Alarasi et al. 2016).

Youth's urban experiences are often overlooked in urban planning and policymaking (Humberto et al. 2022; Mitchell et al. 2007; Friman et al. 2020; Zwerts et al. 2010). For example, urban planning prioritizes the needs of adults, such as reducing traffic congestion and improving travel times, over young people's needs. The needs of young people, such as safe and accessible routes to socialize with their peers, are often not prioritized in urban planning and policymaking (Friman et al. 2020). Many cities are designed primarily for cars, making it difficult for young people to get around independently (Zwerts et al. 2010).

Most important of all is the lack of representation. Young people are often not included in decision-making processes related to urban planning and policymaking, and this shows that needs are not considered when designing urban spaces and transportation systems (Zwerts et al. 2010; Noonan et al. 2016). Included in decision-making processes is also important for developing policies and interventions to improve their quality of life and promote social inclusion (Langevang and Gough 2009; Winton 2005; Ittelson 1978; McDowell 1999; Chen et al. 2011; Tani and Surma-aho 2012; Humberto et al. 2022; Gonçalves and Malfitano 2020; Alarasi et al. 2016).

According to the literature, numerous factors, such as age, gender, social relationships, cultural norms and values, economic opportunities, availability of affordable housing, safety, and security concerns, accessibility, the physical environment and infrastructure, and the quality of public spaces and amenities, play a role in shaping urban experiences (McDowell 1999; Langevang and Gough 2009; Winton 2005; Gough 2008; Perchoux et al. 2013; Tani and Surma-aho 2012; Gonçalves and Malfitano 2020; Chen et al. 2011; Alarasi et al. 2016; Humberto et al. 2022; Smith et al. 2019). These factors, which influence urban experiences, fall into two main categories: (1) individual characteristics of people and (2) social-spatial characteristics of urban space.

Many sources generally define the notion of youth in demographic terms. According to national and international sources, this definition typically relies on individuals between 15 and 24. As international sources, "UN Document on the Rationale for Youth-Related Work" defines "youth" as people between the ages of 15-24. "United Nations Educational, Scientific and Cultural Organization (UNESCO)" and "World Bank (WB)" define young as individuals between the ages of 15-24. "European Union (EU)" defines young as the age range of 15-29. As international sources, the Turkish Statistical

Institute (TurkStat) accepted that the young population is between the ages of 15 and 24. The Ministry of National Education (MNE) defines the youth period as the attainment of physical, social, and psychological maturity, accepting this phase between the ages of 15 and 24.

A sub-category of youth, university students gain much new knowledge and experience about life during the university period. Living in a different city and socializing with students from different cities allows university students to get to know different cultures and be influenced by each other. They used to produce a new space and a new perception of that space. This perception also causes lifestyle changes because spatial experiences and inequalities shape public spaces' use, mobility, and sociability patterns (Saraví 2014). During this period, the problems of university students began to increase, and diversity appeared along with their life experiences. Their problems affect their daily life, urban experience, and mobility, especially their economic situation. University students' personal characteristics, economic conditions, environmental factors, and family financial situation significantly impact their urban experiences (Doğan and Akçalı 2021).

According to Yaylacı (2005), housing is the most significant economic problem affecting university students' urban experiences. The number of dormitories has increased considerably in recent years. The number of students staying in the dormitories has increased with the population settled in the university. As a result, the dormitories remained inadequate in quality and quantity. In addition, students are trying to meet their accommodation needs by renting a house. However, students have been unable to find a home due to the increasing rent prices. The places where most of them stay are also highly inconvenient (Korkmaz 2000).

This study has two aims. The first aim is to explore the differences in urban experience among university students based on the meaning of space and their spatial perceptions and emotional experiences. The second aim is to use qualitative geographic information systems (QGIS) tools that will capture the physical and perceptual dimensions of university students' spatial experiences in a single study. Thus, the study method is also the second aim of this thesis and includes creating sketch maps and using narratives to measure experience and perceptions.

## 1.2. Aim of the Study and Research Questions

This thesis focuses on university students' spatial experiences and perceptions by measuring where students spend most of their time for different activities in their city. This measure of their spatial experiences will consider the factors that affect their reasons for using those places and how they perceive their environment. There are three main frameworks here. The first is places. What places do university students use most in the city? The second is reasons. What are the reasons for going to these places and using these places? The third is factors. What are the ways to go to these places and use these places? University students' spatial experiences and perceptions of urban space are also measured using qualitative GIS (QGIS) tools.

Table 1: Search terms used in thesis research

| Theme | Search Terms |
|---|---|
| (1) Urban Experiences | Urban Experience, Urban mobility |
| (2) Urban Perception | Urban Perception, Perception |
| (3) Mapping | GIS, map, sketch map, cognitive map, |
| (4) Youth | Youth, university students |
| Searh query: | (1 OR 2) AND (3 OR 4) |

In line with the scope of the study, I searched to see if there were similar studies. I scanned the Turkey Council of Higher Education's Thesis Center website and many databases (Web of Science, Scopus, ProQuest) to find similar theses and articles. Table 1 shows the search terms. These terms were based on four themes according to the thesis: (1) urban experiences, (2) urban perception, (3) mapping, and (4) youth. All the articles obtained were limited to not going beyond the research question. Relevant articles and reference lists are reviewed and searched to identify relevant literature. Table 1 shows the most relevant results of the thesis.

Table 2: List of Thesis in National and International Examples of Urban Experiences

| THESIS NAME | COUNTRY | YEAR | TYPE | DEPARTMENT | SPATIAL SCALE | Indicators | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Gender | Age | Income | Campus Location | Pre-University Life | Perception |
| Qualitative research on the spatial experiences of youths living in the Gazi District | TR | 2017 | MSc | Sociology | Neighborhood | X | X | | | | X |
| Social space and city perception of university youth in Istanbul (instance of Istanbul Commerce University Sütlüce Campus) | TR | 2019 | MSc | Sociology | Campus | X | | | | | X |
| Formulation of the relations between university campuses and city | TR | 2019 | MSc | City Planning | Campus & City | | | | X | | |
| The use of university students of central urban districts in the evening and nighttime hours: Example of Ankara city | TR | 2019 | MSc | City Planning | City | X | | X | X | | X |
| University youth adjustment strategies to metropole city: İstanbul as a sample | TR | 2013 | PhD | Sociology | City | X | | | | X | |
| Urban Experience Design: A Human-Centered Method Applied to University District in Seattle | USA | 2020 | MSc | City Planning | Campus & City | X | | | X | | X |
| Right To the City, Time and Temporality in Neoliberal Cities: Woman's Experience in Istanbul | TR | 2022 | MSc | Architecture | City | X | | | | | X |
| Communicating Place Methods for Understanding Children's Experience of Place | SE | 2006 | PhD | Geography | City | X | X | | | | |
| Women’s Lived Experiences and Perceptions of Representation and Identity in Urban Space: A Case Study of Liverpool, UK | GB | 2016 | PhD | Humanities and Social Sciences | City | X | X | | | | X |
| Exploring Youth Relationships with Nature Using Qualitative GIS | USA | 2022 | PhD | Geography and the Environment | City | X | X | | | | X |
| Access, Neighborhood Walkability, & an Urban Greenway: Qualitative GIS Approach | USA | 2013 | PhD | Geography | Neighborhood | | | | | | |
| Computer-Aided Qualitative Gis (Caq-Gis) For Critical Researchers: An Integration of Quantitative and Qualitative Research In the Geography of Communities | USA | 2007 | PhD | Geography | | | | | | | |

According to the search results, we accessed the 18 theses close to the subject of study. Table 2 shows that the 12 most relevant studies. Accordingly, only three are from urban planning. There are four theses from sociology, four from geography, and one from architecture. Results show that the research is at a point where qualitative and quantitative analyses may be needed. Since this thesis will be a study at the city scale, the theses written at the city scale come to the fore. The study method is also crucial because it will utilize Qualitative Geographic Systems tools that entered the literature in the 2000s. In the search for the keyword "Qualitative Geographic Systems," there are no results in the theses searched in Turkey. There are theses written on this subject in international sources. This shows that the study is new and original in this field for the Turkish example.

According to the literature review conducted in Chapter II, two main headings group the factors affecting the urban experience. These are student background characteristics such as age, gender, income, earlier experiences in İzmir, living with or without parents and location of residence and university, and socio-spatial characteristics such as distance between university, home, and activity spaces, and sense of safety and comfort of urban space.

This research aims to investigate university students' urban experiences. This thesis connects urban experience in the context of space and time. Therefore, how do the urban experiences of university students in Izmir differ spatially? The thesis develops regarding the main question and sub-questions with related hypotheses.

This study on the elements affecting young people's urban experiences develops through hypotheses and linked sub-questions. The study's hypotheses and sub-questions, based on the theoretical framework of how university students and their urban experiences relate to one another, are as follows:

## Sub-Questions and Hypothesis about Factors Urban Experiences of University Students

### Individual Characteristics of Responders:

How do the personal characteristics of university students affect their urban experiences?

- Age influences how individuals navigate and access urban areas, shaping their preferences for recreational activities, nightlife, and cultural events.

- Young people are more active and have more urban experience than older people and children.

- As they get older, they may stay out late at night.

- Gender roles and expectations further influence students' activities, socialization patterns, and use of urban amenities.

- Women encounter safety concerns that impact their mobility choices and preferred destinations.

- Men can stay out later than women.

- Income levels determine access to city opportunities.

- Lower-income individuals require assistance in affordable housing, education, and healthcare.

- Higher-income individuals enjoy greater access to resources and amenities.

- Car Ownership

- People who own cars can travel further.

- Living with or without parents

- Young individuals living with parents or relatives have limited independence, affecting their city exploration and social engagement.

- Living Time

- Students who lived in the same city before university are better at experiencing the city because they are familiar with it.

How do the earlier experiences of university students affect their urban experiences?

- The City of Residence Before University

- Their previous living environment and family situation influence their experiences, with rural/suburban students having different expectations than urban students.

- Urban students may be familiar with city life, while rural students must adapt to the faster pace and increased stimuli.

## Socio-Spatial Characteristics of Activity Space

How do urban perceptions (sense of safety and comfort) affect the urban experiences of university students?

- Sense of Safety and Comfort

- Individuals may face mobility restrictions and difficulty accessing resources due to security concerns.

How does the location of the neighborhood where university students live and the location of the university they attend affect their urban experiences?

- Distance From University and City Center

- Those closer to the center can experience more places, while those farther from the center can only experience their surroundings.

- The location of university students' homes and universities close to the center can create vibrant and diverse environments that offer amenities and opportunities for social interaction, cultural exchange, and economic activities.

- It can also promote walkability, reduce car dependency, and improve access to public transportation.

- The availability of well-equipped facilities and accommodation options on the university campus may also affect students' time off campus.

This thesis will try to answer whether there is a relationship between these factors and the urban experiences of university students, and if so, in what direction. To do this, they will also ask follow-up questions about what influences how they use these places. The places they went:

- How are they doing?
- How long do they stay there?
- What are they going for?
- How do they feel there?

Part II will discuss the factors in more detail, and we will clarify those used in the thesis in line with the literature. In Section IV, we will also discuss how to measure these factors.

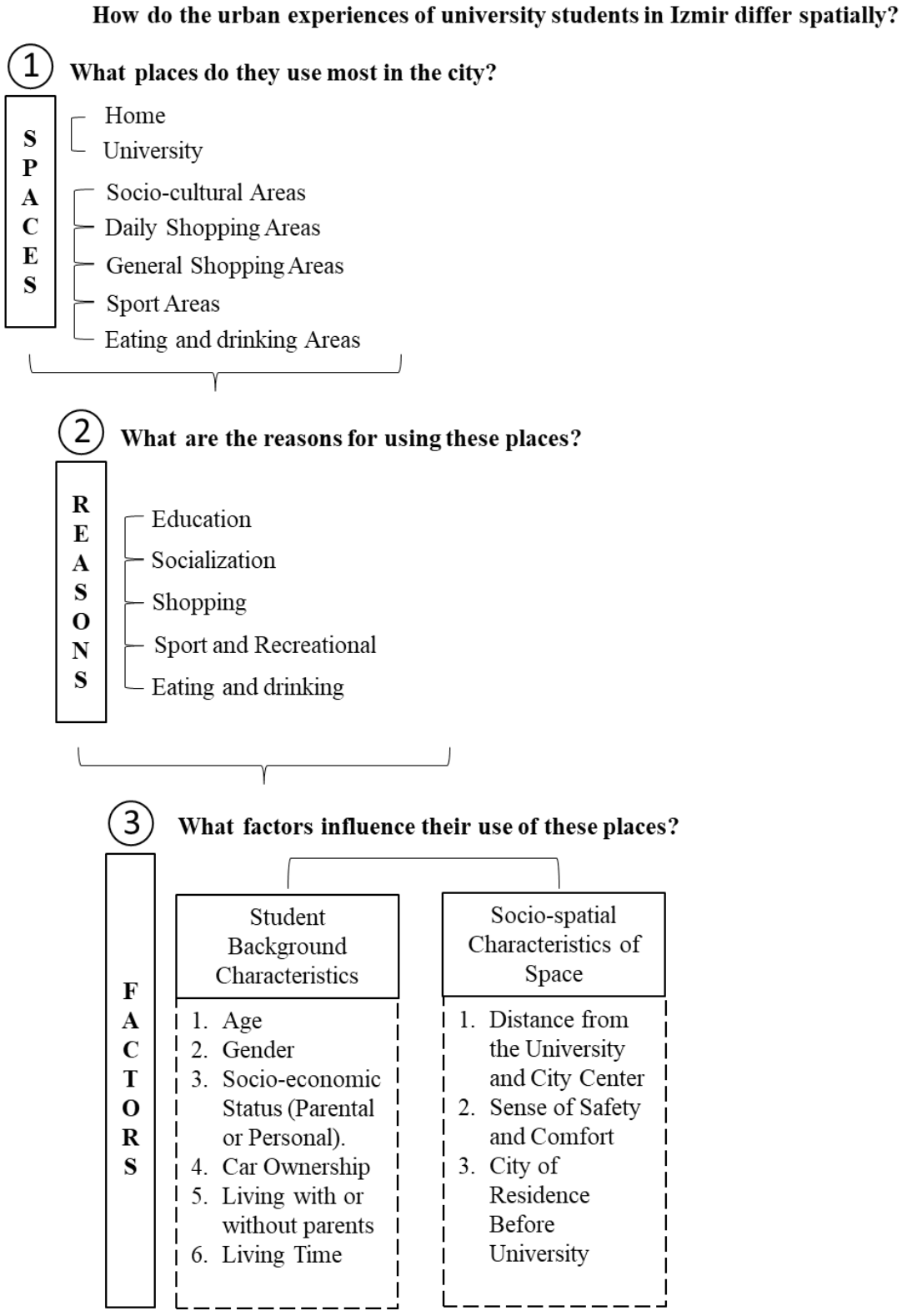



Figure 1: Aim and stages of this research.

## 1.3. Methodology

This study, focusing on students aged 18-25 in the city and regional planning departments of Izmir Institute of Technology, conducts a survey. The study employs Qualitative GIS tools to examine these factors. Survey123, an ArcGIS application, is used to prepare the surveys. Utilizing Survey123, the study actively makes spatial markings to explore the spatial experiences of university students in their daily lives. The second aim involves using narrative analysis to measure students' sense of safety and comfort. The study actively organizes and analyzes survey questions, open-ended questions, and spatial markings. It then actively codes and groups open-ended questions. Using the ArcGIS program and tools, the study actively integrates spatial maps and coding.

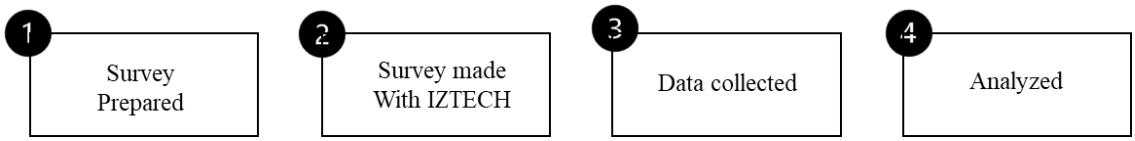



Figure 2: Research Design (Author, 2023)

Figure 2 shows the design of the research.

(1) According to the literature review, the researchers prepared the surveys using Survey123. They asked students about their urban experiences and asked them to make spatial markings.

(2) The researchers sent this survey to 5 universities. Since they could not collect sufficient responses, they conducted the surveys only with IZTECH.

(3) The researchers actively grouped, sorted, and organized the collected data according to the surveys.

(4) The researchers actively determined and carried out the analyses based on the results of the literature review.

## 1.4. The General Structure of the Study

This thesis focuses on university students' urban experiences and includes five main chapters.

**Chapter I** starts the introduction with the aim, followed by a summary of the theoretical framework and methodology.

**Chapter II** draws a theoretical framework, discussing this section under four main headings. The first heading explains the concepts of space and place, emphasizing their fundamental differences. The author mentions that explaining these differences is necessary to better understand space as the site of experience. In the second heading, the chapter describes the concept of urban experience, touching upon its relationship with mobility (mode of transportation) and perception (sense of safety and comfort). Additionally, it explains the connection between urban experience and activity space. The third heading elucidates the factors that explain urban experience, while the fourth heading explains the concept of youth and its subgroups.

**Chapter III** discusses the concept of narrative and sketch maps. There are three main headings here. The first title explains the concepts of narrative and sketch maps in detail. Additionally, it mentions how researchers can use these techniques in urban experience studies. The second title mentions the GIS concept and its usage areas in general terms. The third title explains the concept of Qualitative GIS and combines the topics in the first and second titles.

**Chapter IV** explains the methodology of the study in detail. This section consists of three main headings. The first heading explains the field of research and provides detailed information about the field of study. In the second title, he talks about how to use the Survey123 application for data collection and the limitations of the application. The third heading discusses how researchers will analyze the data.

**Chapter V** includes the results of the study.

**Chapter VI** discusses the analyses together with a conclusion. Moreover, it provides suggestions for further research.

# CHAPTER 2

# URBAN EXPERIENCE AND SPATIAL PERCEPTION

## 2.1. Space as a Place of Experience

This study considers space as a place for experience. Space and place are interwoven concepts that represent geography's fundamental character. Therefore, this study must define space and place. These notions are often confused because they intersect with each other. There are several differences between definitions of place and space.

There are differences between space and place. Space is a more abstract concept (Tuan 1977; McDowell 1999; Malpas 2012) and the physical dimension of an area, such as length, width, and height. It is a more abstract concept that can be measured and mapped. The space is associated with movement. (Tuan 1977; Relph 1976; McDowell 1999). Place is a subjective concept defined as a more dynamic concept. (Tuan 1977). The place has social and cultural meanings attached to a particular location and is associated with belonging or identity (Relph 1976). Place relates to individual experiences and perceptions (McDowell 1999; Malpas 2012). Massey (2005) states that space is concrete, and Merrifield (1993) views the place as a grounded and practiced space.

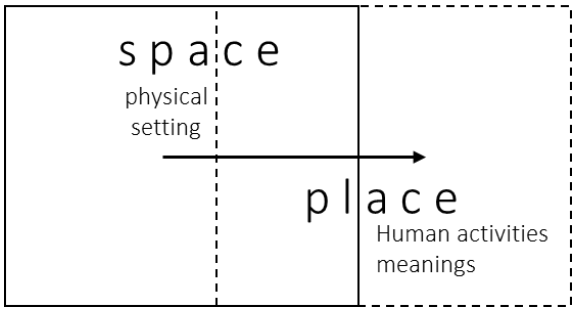



Figure 3: Intersection of space and place.
(Adopted by the author from (Canter, 1977))

This study should clarify the difference between space and place in terms of the context of the thesis and establish its relationship with urban experience. According to

Tschumi (2012), The spatial experience consists of three more elements: space, shape, and function. These are space, event, and activity. Thus, space is the setting where the activity occurs (as cited in Rahimi et al. 2018). Rahimi et al. (2018) pointed out that an urban experience is related to space involving people in a specific activity within a context. Place and space are two distinct yet related concepts. The literature describes space as physical and symbolic. The place differs according to the characteristics and experiences of individuals. Space and place are interdependent rather than conflicting because people's space experiences give it meaning (Figure 3).

Lefebvre (1991) has a similar idea. He states that spatial relations form with social elements and that space exists with people. These relationships lead to experiences that give the space meaning. In other words, space is more than just a physical setting. It consists of experiences and perceptions making contributions (Figure 4).

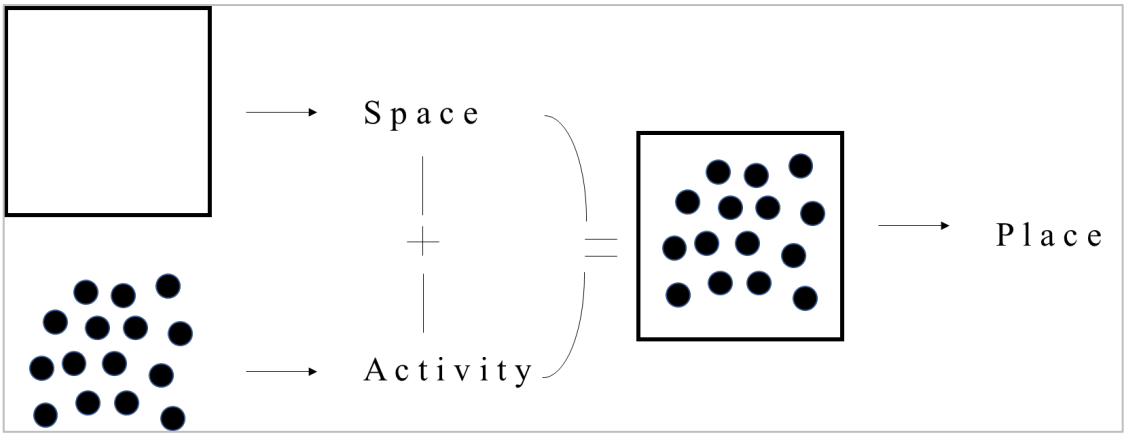



Figure 4: From Space to Place.
(Adopted by the author from (Merschdorf and Blaschke 2018))

## 2.2. Urban Experience

Urban experience refers to individuals' personal and emotional connection to the urban environment (Burns 2000; Piga et al. 2023), including their sensory, emotional, and psychological experiences with the city (Burns 2000). At the same time, urban experience refers to the interaction of people living in the city with urban culture, lifestyle, and factors such as other people, local cuisine, art and music, and architecture (Hayward 2004; Humberto et al. 2022). For this reason, the urban experience is complex and multifaceted.

The characteristics of both the place and us shape it. It includes both intangible attributes of places, such as atmosphere, sense of community, and belonging, and physical characteristics, such as the morphology and materials of the built environment (Piga et al. 2023).

People's experiences with the city are mutual. The city's various social, cultural, and physical factors and aspects, such as the built environment, public spaces, social interactions, cultural activities, and economic opportunities, shape people's urban experiences (Moustafa 1999). On the other hand, factors such as our history, cultural norms, and urban spaces' physical and social characteristics shape our sensory experiences of cities (Law 2005; (O'Brien and Christensen 2002). These definitions emphasize the interplay between various aspects of urban life and the complexity of the urban experience.

Urban mobility is the term used to describe how people move through urban environments, including their travel patterns, modes of transportation, and activity spaces (Smith et al. 2019; Perchoux et al. 2013; Langevang and Gough 2009). Urban mobility can differ, depending on whether it is scheduled activities or free. These can be obligatory, such as home-to-work trips, or voluntary, such as leisure (Rodrigue 2020). Mobility has a temporal dimension about time constraints that limit the daily number of trips and their length (Gough 2008), and spatial dimensions depend on physical capabilities, available budget, and transport supply. Specific urban activities and land use, such as the spatial distribution of residential, commercial, and manufacturing activities, link to it (Rodrigue 2020).

Mobility does not just refer to moving physically, like walking or using public transit. At the same time, mobility refers to social movement through different social contexts and networks and reflects our urban experience and daily life (Langevang and Gough 2009; Rodrigue 2020).

Spatial perception refers to how people perceive and subjectively experience the physical environment around them, including its dimensions, proportions, materials, and other spatial characteristics. It involves both affective and cognitive processes, including emotional responses to the environment and cognitive evaluations of its attributes, such as comfort, legibility, and safety (Ho and Au 2020; Lenzholzer et al. 2018).

This includes factors such as the city's physical layout, the availability of public transportation, the quality of public spaces, and the presence of amenities such as shops and restaurants. (Malpas 2012). Additionally, it entails deciphering sensory data from

one's physical and social environments and the emotional reactions they elicit (Stojanovski and Östen 2019). This means urban perception can significantly impact how people interact with and relate to their surroundings and can shape their overall experience of the city (Malpas 2012). Various factors, including their social and cultural background, their experiences of violence and insecurity, and access to resources and opportunities, shape urban perception (Winton 2005).

### 2.2.1. Spatial and Temporal Activity Space in the Context of Urban Experiences

Activity area refers to the geographical area where an individual moves and performs daily activities, traveling regularly for work, recreation, school, or other typical activities (Zwerts et al. 2010; Mennis et al. 2013). Schonfelder and Axhausen (2003) mention that one can also view it as a geometric indicator of daily travel patterns. It is a manifestation of how that person uses space. It is critical to comprehend the mandatory locations where a person spends most of his time and the locations they prefer to visit frequently. Mennis et al. (2013) summarize the place characteristics of the person exposed.

Activity space is significant for understanding people's movement patterns and perceptions of their surroundings. By mapping individuals' activity spaces and visualizing their movements and experiences in the city, urban planners and designers can create more engaging public spaces that meet other groups' different needs and experiences (Tani and Surma-aho 2012).

Activity space is important in understanding how individuals interact with their urban environment and daily mobility patterns (Perchoux et al. 2013). Figure 5 shows a group of people's activity areas and mobility types and their relationship with activity space and mobility by numbering. This includes (1) the home and movement around it, (2) the places where one does their daily activities and movements around them, and (3) movement and travel between those places. There is also a commuting relationship between home, school, and work. This transport is mandatory. Home and areas like beaches, parks, and malls are leisure activities. This transportation is voluntary.

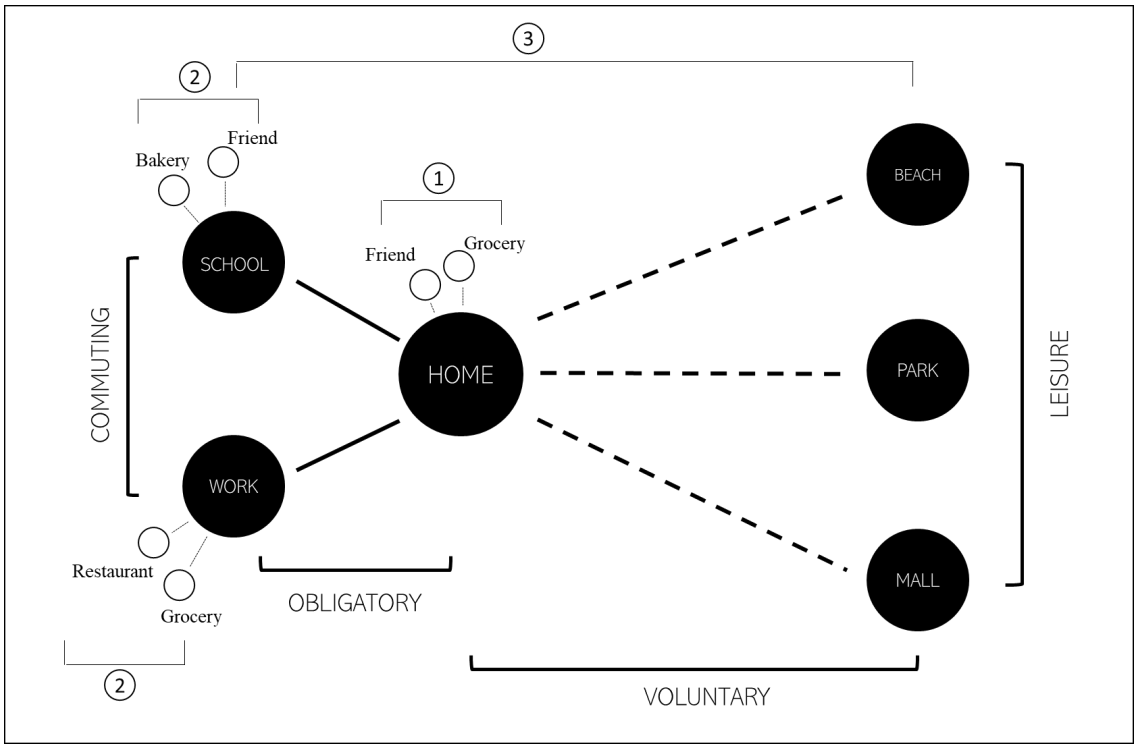



Figure 5: Activity Space and Mobility Relation.
(Perchoux et al. 2013; Rodrigue 2020) Adopted by Author, 2023)

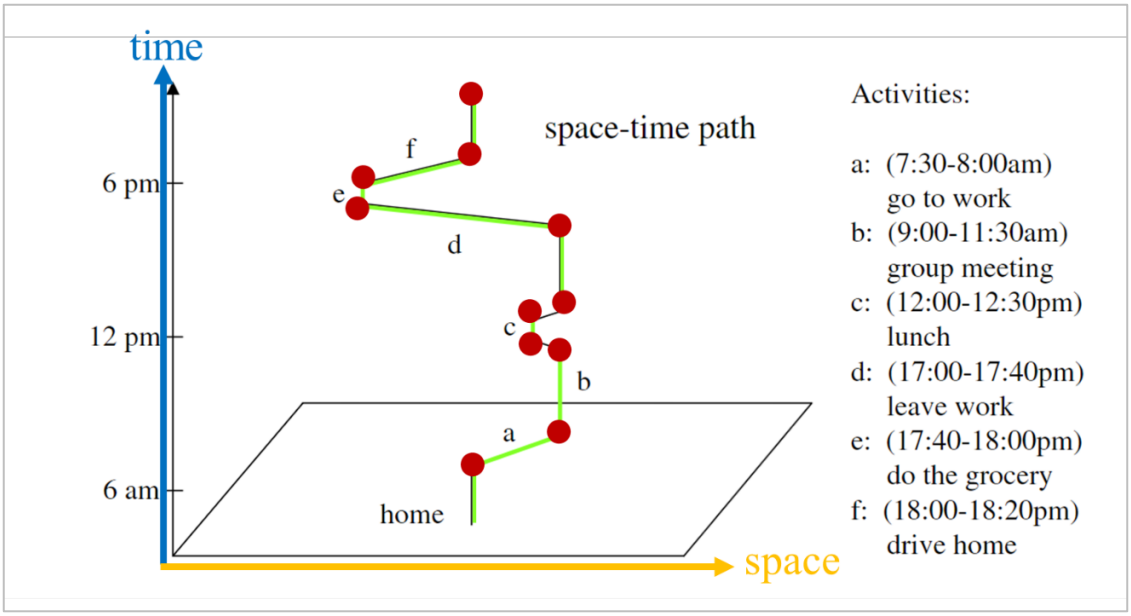



Figure 6: Space-Time Path.
(Chen et al. 2011) (Adopted by Author 2023)

The urban experience is not just about space and mobility. It is also about time. Figure 6 shows this relation. Here, red dots show the locations, and green lines show the duration of the activities. Figure 6 shows the frequency, regularity, and duration of visits to activity areas. Location, duration, frequency, and activity types are all included in activity spaces (Chen et al. 2011).

Loebach and Gilliland (2016) mention that individuals' activity areas influence various factors, including their age, gender, and socioeconomic (Tani and Surma-aho 2012), as well as their neighborhood's built environment and social norms. For example, Al Arasi et al. (2015) mention that parents' concerns about safety and traffic often limit children's activity space.

## 2.3. Factors of the Shaping Urban Experiences

This section explores the factors affecting urban mobility and experiences. The urban experience is subjective and depends on individuals' perceptions, attitudes, and how people interact with and emotions toward their environment (Ittelson 1978; Humberto et al. 2022; Winton 2005). These definitions emphasize the role of individual perception in shaping individuals' experiences of urban environments. At the same time, this includes their characteristics such as gender, age, income and their experiences of safety and security, social relationships, physical characteristics of buildings and streets, environmental perception, access to public spaces and transportation, employment opportunities, and cultural norms and values, and social relationships (Table 3).

Table 3: Review of studies on factors affecting urban experiences.

| Author-Year | Factors | Method for Data Collection | Method for Data Analysis |
|---|---|---|---|
| **McDowell 1999** | - Gender<br>- Income<br>- Access to public transportation<br>- Safety and security concerns | -Interviews<br>-Focus groups<br>-Participant observation<br>-Survey | - Thematic analysis<br>-Discourse analysis<br>-Grounded theory<br>-Statistical analysis<br>-Regression analysis |
| **Ittelson 1978** | - Gender<br>- Age<br>- Cultural Background<br>- Attention and memory<br>-The presence or absence of other people in the environment | -No method (The article is a review of existing research.) | -No method (The article is a review of existing research.) |
| **Smith et al. 2019** | - Walking and cycling<br>- Types of Land use<br>- Size of the activity space<br>- Travel mode preferences | -No method (The article is a review of existing research.) | -No method (The article is a review of existing research.) |
| **Chen et al. 2011** | - Environmental perception<br>- Social relationships<br>- Accessibility<br>- Safety | - Survey<br>- Face-to-face interviews | - Space-time GIS<br>- APA functions<br>- Clustering analysis |
| **Tani and Surma-aho 2012** | - Social relationships<br>- Physical design<br>- Safety and Security | - Pictures<br>- Drawings<br>- Written notes | - Time-space path analysis |
| **Humberto et al. 2022** | - Environmental perception<br>- Safety concerns<br>- Access to outdoor activities<br>- Social interaction and community engagement<br>- Cultural and socioeconomic background | - Photovoice<br>- Story-writing<br>- Audio-narratives<br>- Travel diaries<br>- Drawings<br>- Photographs<br>- Videos | - Topic modeling<br>- Sentiment analysis |
| **Gonçalves and Malfitano 2020** | - Personal experiences and emotions<br>- Social relationships and networks<br>- Access to resources and opportunities<br>- Physical environment and infrastructure | - Drawings<br>- Written notes | - Content analysis |
| **Alarasi et al. 2016** | - Quality of the built environment<br>- Level of social integration<br>- Heavy traffic<br>- Geographic isolation | - Participatory mapping<br>- Focus group<br>- Guided tours<br>- Interviews supported by photo-voice. | - Thematic analysis<br>- Textual analysis<br>- Descriptive statistics<br>- Spatial analysis |
| **Gough 2008** | - Gender<br>- Economic opportunities<br>- Perceptions of safety<br>- Class | - Conducting in-depth interviews | - Thematic analysis |

As a result of the literature review, researchers examined the factors affecting urban experience to answer the research question, as shown in Table 3.

Accordingly, the most repeated factor is safety and security concerns. Then, travel mode, gender, and income. As a result, Figure 7 shows the factors grouped under two main headings: student background characteristics and socio-spatial characteristics of urban space.

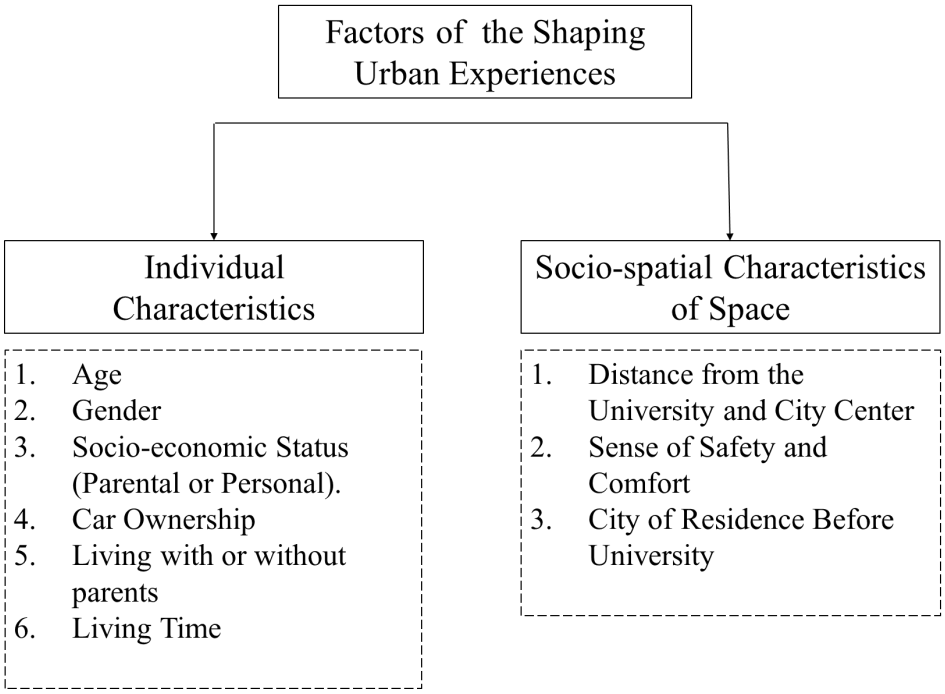



Figure 7: Affecting Factors of Urban Experiences.

## 2.3.1. Individual Characteristic

Different **age** groups have distinct needs, interests, and social roles. Young people have different mobility patterns and are more open to new experiences and social connections. This shapes their experience of urban life and access to resources and opportunities (McDowell 1999; Langevang and Gough 2009; Ittelson 1978; Smith et al. 2019).

**Gender** plays an important role in shaping the urban experience, as women and men have different necessities, interests, and social roles, and their access to public space and social opportunities creates diverse experiences (Winton 2005). Women and

LGBTQ+ people face difficulties primarily because of worries about safety, harassment, and accessibility (McDowell 1999). For this reason, they may have different mobility patterns than men, such as walking or using public transportation and visiting various destinations within their activity space. Women may feel unsafe in city areas due to safety concerns, such as poorly lit areas or high crime levels (Ittelson 1978; Langevang and Gough 2009; Winton 2005). This makes safety a critical consideration in their transportation choices.

People from different backgrounds have different access to resources and opportunities in the city. This significantly affects the ability to navigate in urban areas. Therefore, urban experience is affected by **income** (Boschmann and Cubbon 2014). Lower-income individuals may face challenges in accessing affordable housing, education, healthcare, and employment opportunities, while higher-income individuals may have greater access to resources and amenities. Lower-income people's backgrounds may have limited access to private cars (Humberto et al. 2022) and use more public transportation, which may be less frequent and crowded in certain areas (McDowell 1999). The built environment can reflect socioeconomic disparities, and young people from lower-income backgrounds may have different mobility patterns and live in poorer housing conditions, affecting their health and social networks (Langevang and Gough 2009; Ittelson 1978; Smith et al. 2019; Winton 2005). Income can also affect people's access to different public spaces and amenities and their feelings of safety in urban environments (Bagheri 2014).

**Living with or without parents** affects the urban experience of young adults. People living with their parents or relatives have less autonomy and independence, impacting their ability to explore the city and engage in social activities. In addition, their living situation influences their financial resources and access to certain amenities. Family status also affects social interactions in urban environments (Langevang and Gough 2009; Ittelson 1978).

People's **time in a place** affects their urban experience because they become more familiar with the area (Mennis et al. 2013). According to Curtis (2012), the time people live in a place shows that their perceptions and fears about the environment may change over time. Young people who have lived in the same place for a long time are familiar with specific places, such as parks, playgrounds, or community centers, and the frequency with which they use them may differ from that of newcomers. Additionally, young people

who are new to a place may have a different perspective as they may be more willing to explore new places in the city (Tani and Surma-aho 2012).

Not **car ownership** can limit young people's mobility and access to different city spaces (Tani and Surma-aho 2012), or, on the contrary, individuals who own cars may have greater mobility (Winton 2005) and access to a broader range of locations, while those who do not own cars may be more limited in travel options (Mennis et al. 2013). Young people who drive may have a different perspective on the city than those who rely on public transportation or walking. They may be more focused on the physical features of the city, such as roads, parking lots, and highways, and less attuned to the social and cultural aspects of urban life (Tani and Surma-aho 2012).

### 2.3.2. Socio-spatial Characteristics of Urban Space

**The diversity of land uses around the home or university** can create vibrant and diverse environments with amenities and opportunities for social interaction, cultural exchange, and economic activity. The university campus must be closely connected to the city so that students do not lose touch with the city's cultural opportunities (Pöschl 2019).

**Sense of safety and comfort** concerns are significant in the urban experience. Fear of crime and violence can lead to discomfort and isolation in public spaces, limiting people's engagement with their surroundings. Due to safety concerns, young people may face mobility limitations and difficulty accessing resources. Winton (2005) and Malpas (2012) consider recreational areas dangerous, contributing to vulnerability and limiting young people's ability to engage fully with their urban environment.

**City of residence before university** shapes people's perceptions and attitudes toward the urban environment. For example, people's childhood experiences in rural or urban areas can influence their preferences and comfort levels in different settings. Similarly, young people from families with a migration history may have different expectations for their mobility patterns. Past experiences of discrimination or exclusion can also affect how people feel about their place in the city (McDowell 1999; Langevang and Gough 2009; Ittelson 1978).

## 2.4. Youth as a Social Group

In Chapter I, we discussed that the definition of youth is often considered demographic in many national and international sources and characterized as age ranges generally covering individuals between the ages of 15-24. However, youth is too broad a concept to be described by age ranges alone.

Oyman (2019) defines youth as the period in human life where physical, psychological, and social sensitivity is at the highest level, significant changes have occurred, and people make and implement important decisions about their personality and future. Youth also refers to a socially constructed status rather than being biologically young. According to Neyzi (2001), the notion of youth is a product of the experience of modernity, and he classifies it as a liminal transition from childhood to adulthood. According to Marshall (1999), there are three states of youth. The first is very general usage, covering the period from early infancy to early adulthood. The second term, "adolescence," emphasizes the transition to adulthood and implies the period between the ages of ten and twenty (teenager). The third term expresses the emotional and social problems experienced because of modern urban life.

When we look at the youth population ratios of Turkey by province (Figure 9), the rate in the highest province was 22.8%, and the rate in the lowest province was 12.3%. In İzmir, the rate is 12.9%.

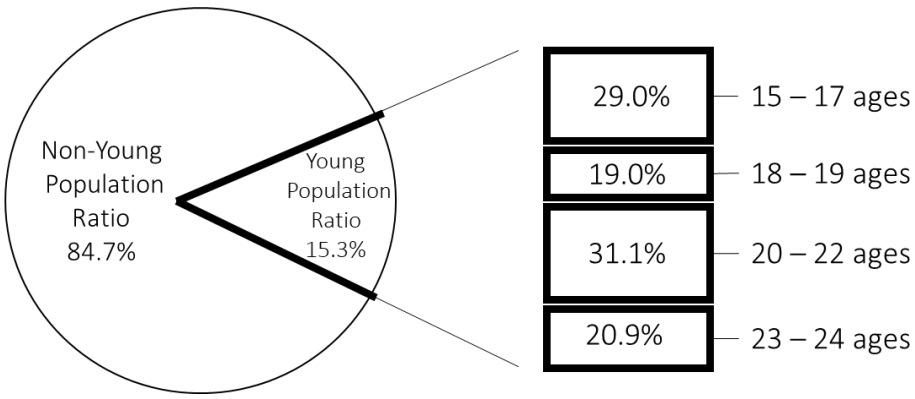



Figure 8: Proportion of youth population by age group in Turkey.
(Source: TurkStat, Address Based Population Registration System, 2021)

The average young population rate of the European Union is 10.6%, and the young population rate of Turkey is 15.3%. The highest youth population ratio in the European Union is 12.6%, and the lowest youth population ratio is 9.0%. When we compare, we see Turkey's young population ratio is higher than that of the European Union.

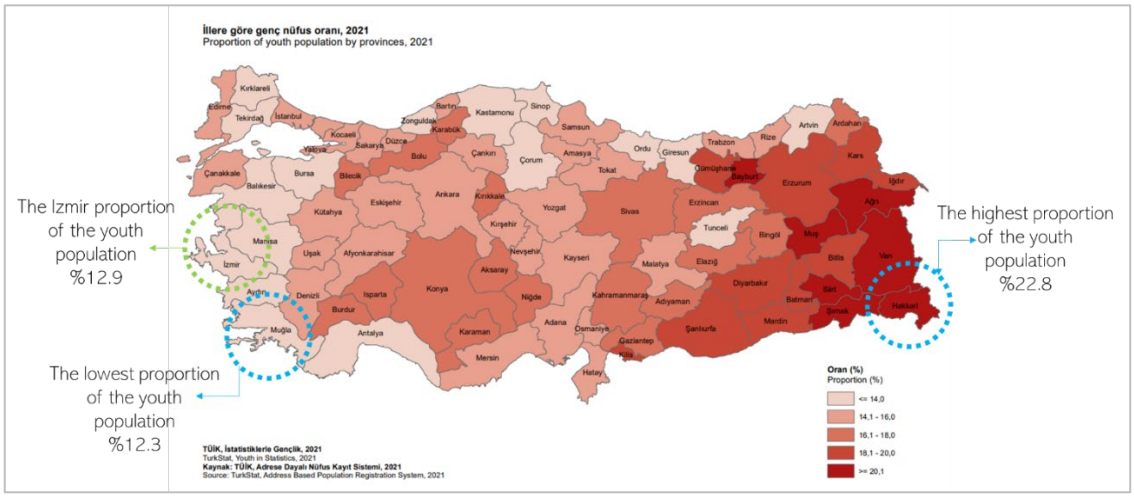



Figure 9: Proportion of youth population by provinces.
(Source: TurkStat, Address Based Population Registration System, 2021)

Additionally, people attribute different values and meanings to youth in different times and places. The problems of young people, handled through different identities in different societies, also diversify like their identities. Generally, the reason for differentiation is the social and economic conditions of the society they belong to (Gürses and Gürses 1979). For this reason, we should not evaluate the problems of young people independently of these conditions. According to the Youth of Turkey Survey (2018), the economy is the most important problem for young people in Turkey. Related to this, the most significant problem for youth is the lack of a job. Young people evaluated their happiness level as 3.23 out of 5 points. Studies show that the level of happiness decreases with age. On the other hand, it concludes that as the monthly income level increases, the level of happiness also increases, and the most important condition for happiness is money.

### 2.4.1. Importance of Understanding the Urban Experiences of Youth

Young people represent a significant part of the urban population. Young people are an important and often overlooked group of urban residents with unique perspectives and needs that should be considered in urban planning and policymaking (Humberto et al. 2022). Young people's urban experiences can ensure valuable insight into the needs and preferences of this demographic group (Chen et al. 2011; Tani and Surma-aho 2012). Young people are often more open to new experiences and ideas than older adults, making them an important target group for initiatives to promote urban development and innovation (Ittelson 1978).

Understanding the urban experiences of young people can be important for building sustainable and equitable cities and developing policies and interventions that support their well-being, social mobility, and perceptions of the city and influence their future decisions. This is also crucial for developing policies and interventions to improve their quality of life and promote social inclusion (Langevang and Gough 2009; Winton 2005; Ittelson 1978; McDowell 1999; Chen et al. 2011; Tani and Surma-aho 2012; Humberto et al. 2022; Gonçalves and Malfitano 2020; Alarasi et al. 2016).

For several reasons, young people's urban experiences and spatial mobility in cities are important. Some of those are health and well-being. Young people with access to safe and walkable streets, green spaces, and public transportation are more likely to be physically active and have better health outcomes. In social development, urban spaces can provide opportunities for young people to interact with peers, build social networks, and develop important life skills (Zwerts et al. 2010). Shape their social and spatial mobility, sense of identity, and belonging in urban environments (Winton 2005; McDowell 1999). Education and access to safe and reliable transportation can help young people get to school and other educational opportunities (Zwerts et al. 2010). Equity decisions in urban planning often disproportionately affect young people from marginalized communities (Zwerts et al. 2010). It can significantly impact young's well-being and shape their social mobility by reducing disparities in access to resources and opportunities (Chen et al. 2011) and their ability to build social networks and navigate social hierarchies. At the same time, this can play a key role in shaping young's identification by exposing them to different cultural influences and social contexts (Langevang and Gough 2009; Chen et al. 2011). Social and cultural factors such as

gender, race, and religion shape young people's experiences of urban spaces. These factors interact with the physical and built environment to produce complex and varied experiences. For example, young people may feel unsafe in certain areas of the city due to gangs or other forms of violence, or they may feel excluded from public spaces due to race or ethnicity (Kwan and Ding 2008).

A positive urban experience can promote independent mobility, physical activity, social integration, and a sense of belonging in the community. On the other hand, negative urban expertise can lead to feelings of alienation, exclusion, and reduced physical activity (Alarasi et al. 2016).

Young people's experiences in the city also shed light on broader social and economic trends, urbanization, and inequality. Thus, this helps policymakers and practitioners design more effective interventions to support youth development and well-being in urban environments (Gough 2008). By considering their needs and perspectives, urban planning and policymaking can help promote more significant equity and social justice.

### 2.4.2. University Student as a Member of Youth

Oyman (2019) touches on the definition of youth, covers many sociological dimensions, and reduces the age range. She explains demographically the age limit for the youth period used in the context of statistical evaluation of the population. However, it should also evaluate youth with the social dimensions.

While evaluating a group of young people, the importance of many factors, such as living spaces, social environments, family structures, and incomes of these young people, should not be overlooked. Regarding this, Bayhan (2016) states that it would not be correct to say that a 23-year-old university student, a 23-year-old young man who has been working since the age of 15, and a 23-year-old man who is married and has children have similar behavior patterns. In this context, they do not have similar behavior patterns, and their urban experiences and perceptions will change similarly.

University youth emerges as a youth subculture among youth categories. University students gain much new knowledge and life experience during this period. Living in a different city or being with students from different cities makes it possible to get to know different cultures and be influenced by each other during these periods. They

use these to produce a new space and a new perception of that space. This perception also causes lifestyle changes because spatial experiences and inequalities shape public spaces' use, mobility, and sociability patterns (Saraví 2014).

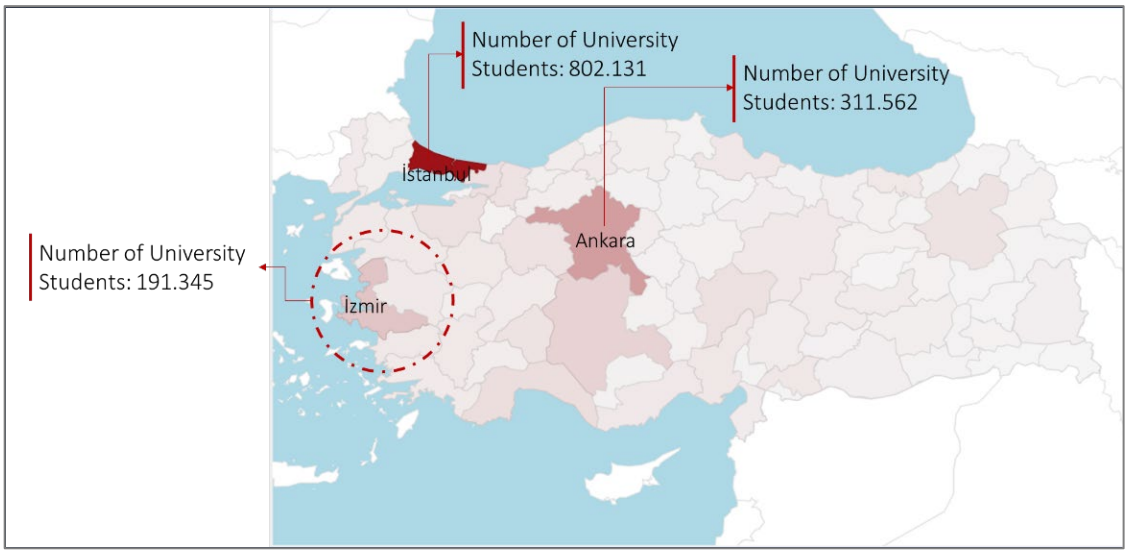



Figure 10: University Student Numbers.
(Source: Council of Higher Education, 2023)

As shown in Figure 10, İzmir is the city with the third largest university student population in Turkey, with 191,345 students. This makes the study more important because exploring and analyzing the city in the context of university students is important for city planners and decision-makers.

# CHAPTER 3

# NARRATIVE ANALYSIS AND SPATIAL MAPPING AT GEOGRAPHIC INFORMATION SYSTEM

## 3.1. Sketch Maps and Narratives to Collect Data from Individuals

We encounter two essential concepts in comparing and relating space and experiences. The first is the concept of narrative in social sciences, and the second is spatial mapping in geography.

The narrative consists of the people's life stories about their experiences and the meanings they attach to those experiences (Bagheri 2014). Narratives differ for different fields of study. Clandinin and Connelly (2000) proposed a three-dimensional narrative analysis appropriate for geographical studies. Accordingly, there are three main components: action-interaction (focus on the personal and the social in a balanced right to the inquiry), time (have temporal dimensions), and space (occurs in places) (cited as Kwan and Ding 2008). People also make creative narratives, images, texts, and many qualitative data accessible and place experienced from different people's fields of visualizing the alternatives (Mugerauer 2000). Analyzing narrative texts supports the researcher can better grasp how participants experience, live, and tell their worldview (Keats 2009).

Since the emergence of work in urban perception, the sketch map has been one of the common tools to capture the spatial component. (Curtis 2012). A spatial map is a map that focuses attention on a spatial organization (Imani and Tabaeian 2012). Spatial mapping is the most basic, traditional, and widely used map in different areas. Tuan (1977) explained spatial maps defined as "sketch maps," "mental maps," "cognitive maps," and "perceptual maps" in different disciplines. The frequent use of terms interchangeably creates problems in the literature. Here, we will focus on a mental map and a sketch map.

Lynch is one of the crucial people in this field and has done sketch map studies that pioneered the following studies. Lynch (1960) conducted interviews and sketch map studies to measure the legibility and imageability of the city with people in 3 different

cities. Lynch divides the environmental image into identity, structure, and meaning. First, an image requires an object to be identified and differentiated from other entities, namely an identity. Secondly, the image also includes the relation of the thing with the observer and other objects; that is, it has a structure. Finally, it must have meaning for the observer. According to Lynch, a city's legibility is related to its regions, borders, roads, and areas that can be distinguished and grouped into a coherent pattern. In other words, he means directly related to its physical properties, such as shape and arrangement. Imageability contains two-way relations between the observer and the observed (Figure 11). Therefore, this refers to physical (location, appearance, etc.) and cultural (meaning, association, etc.) components.

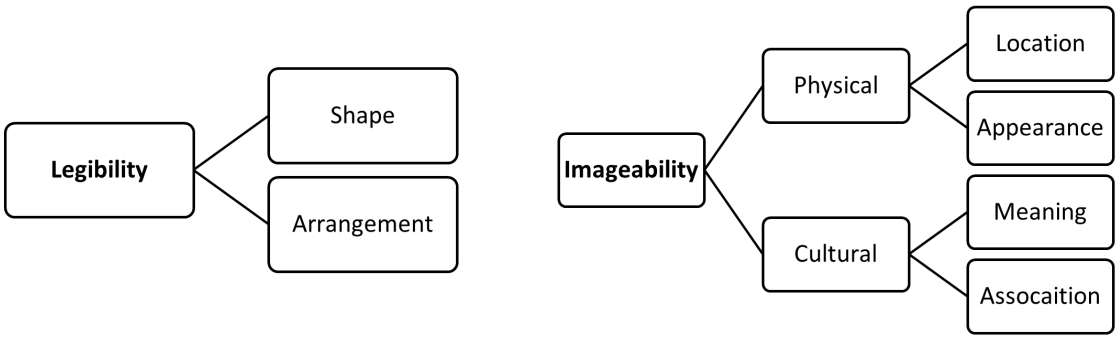



Figure 11: Components of Legibility and Imageability.
(Source: Broadbent, 1980; Lynch, 1960)

People produce sketch maps and geospatial presentations of their experiences by making spatial markings on basic maps (Figure 12) (Boschmann and Cubbon 2014). It is a standard tool for seeing the spatial dimension in environmental perception studies (Curtis 2012). Participants can obtain sketch maps through "free recall" using a blank sheet of paper or by drawing on a "base map" in a designated area (Pocock 1976). According to Pocock (1976), the size and shape of the paper can affect participants' results. On the other hand, Evans (1980) also expresses three concerns about the unique characteristics of the participants, how the guide and materials influence the resulting map, and how to analyze the maps.


Figure 12: Sketch Map Example.
(Source: Boschmann & Cubbon, 2014)

In the modern behavioral geography tradition, researchers used mental maps to understand people's decisions (Kitchin et al. 1997, cited as Boschmann and Cubbon 2014). Lynch's pioneering work (1960), where he asked people to draw maps of their cities from their minds, influenced the development of the mental map. Mental maps are typically unrestricted, baseless spatial drawings made on white paper. They do not have cartographic certainties because their primary purpose is to learn the behavior and thoughts of people.

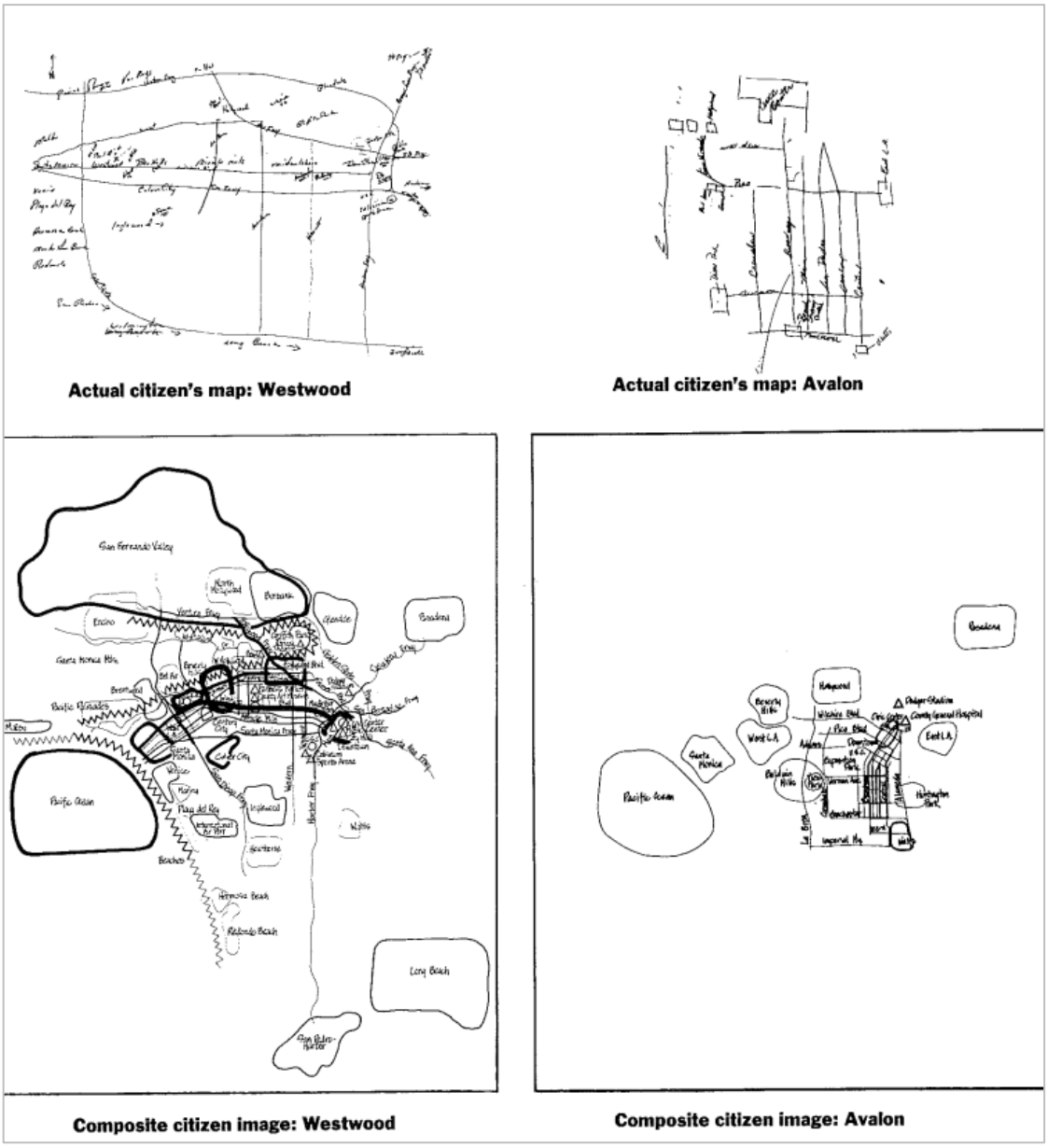



Figure 13: Mental Map Example.
(Source: Hayden, 1995)

As we see in the example in Figure 13, the same places may have remained different in the minds of the people who experienced them. In the first of the Westwood drawings, the participatory drew roads as lines using a single thickness and represented places only by naming them. In the second drawing, the participatory defined routes and main axes with lines of different thicknesses, divided the space into zones with polygons, and emphasized some places with varying lines. This comparison concerns the experience and perception of two people who use the same space. The desired information in this

thesis study is not only scheduling the correct locations of the space of experience using a base map as in a sketch map study but also measuring the perceptions about this location as in mental map studies. In the context of urban experience, we combine narrative and sketch map concepts to describe and spatialize experience perception.

## 3.2. Spatialization of Narratives

Spatial narratives unify time and space by relating people's experiences and places. Georeferenced qualitative data links stories to specific locations on the map. This integrates time geography with narrative and allows researchers to explore the relationship between people's experiences and the places where they occur. Kwan and Ding (2008) contend that a key component of narrative analysis is the chronology of characters' experiences; for this reason, they use time geography. Time geography represents people's life or daily activities as a continuous life path in three-dimensional space, with time represented by the vertical dimension and location by the horizontal dimensions (Hagerstrand 1970; Parkes and Thrift 1975; Lenntorp 1976; as cited in Kwan and Ding 2008). Thus, the researcher made the investigation of the interaction between space, time, and experiences more accessible by combining temporal and spatial dimensions into a single concept. As a result, they developed a "Geographic Narrative" and "Geo-Narrative."

Spatial narratives (Figure 14) can provide a more detailed understanding of the experiences and perceptions of individuals in different places. For example, a researcher might collect spatial narratives from young people about their experiences using public transportation in a particular city. By linking these narratives to specific locations on a map, the researcher can identify patterns and relationships between data types, such as the frequency of negative experiences (such as feeling unsafe or uncomfortable) in some city regions. Researchers can also use spatial narratives to explore the emotional geographies of different places. For example, a researcher might collect spatial narratives from young people about their experiences of spending time in a particular park. By linking these narratives to specific locations on a map, the researcher can identify the places within the park associated with positive or negative emotions, such as feeling relaxed or anxious (Elwood and Cope 2009; Kwan and Ding 2008).

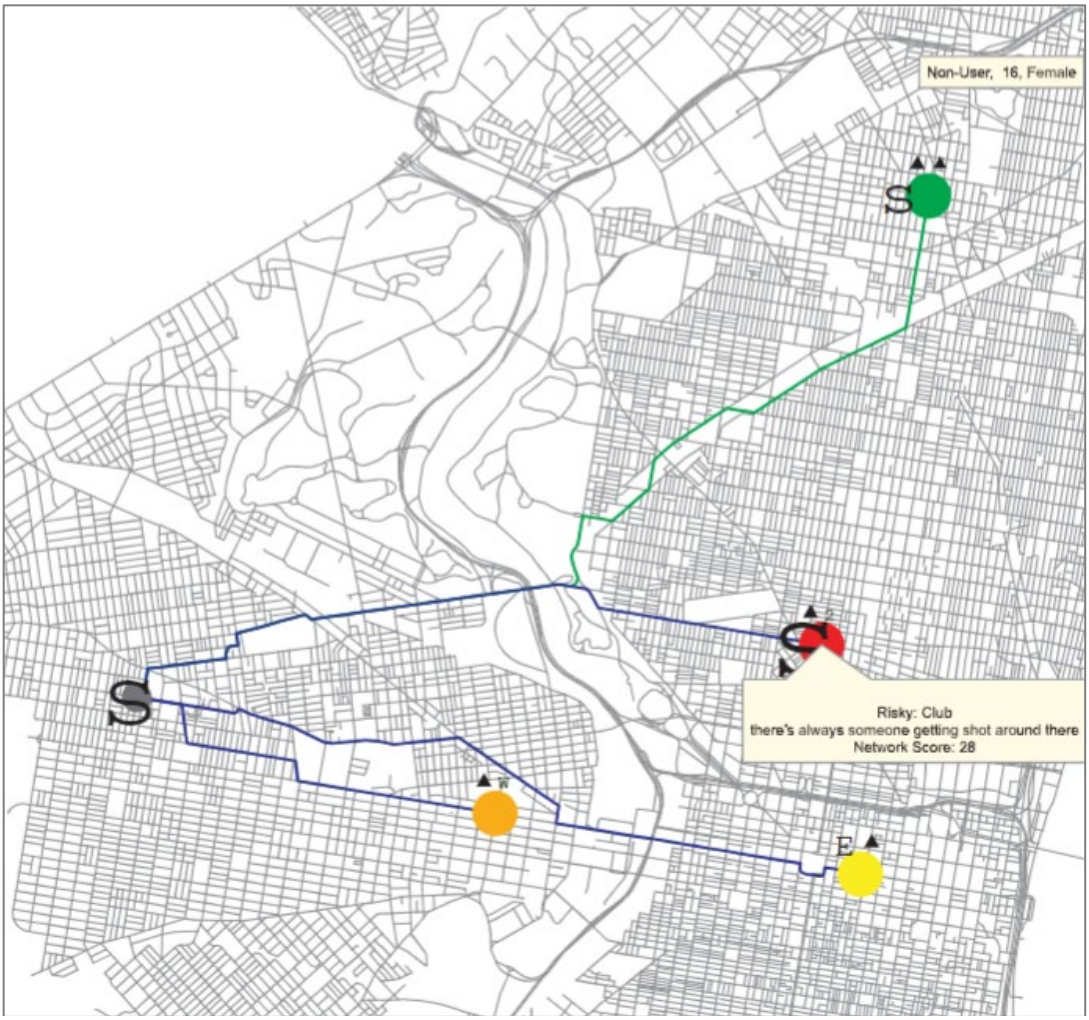



Figure 14: An example of Spatial narratives.
(Source: Mennis et al., 2013)

Overall, spatial narratives are a powerful tool for exploring the relationship between people's experiences and the places where they occur. By linking narratives to specific locations on a map, researchers can gain a more nuanced understanding of the emotional and social dimensions of different places, which can inform interventions tailored to young people's needs and experiences (Mennis et al. 2013; Elwood and Cope 2009; Kwan and Ding 2008). Researchers can collect spatial narratives through various methods, such as interviews, focus groups, or surveys, and analyze them using Qualitative Geographic Information Systems (Qualitative GIS) software (Mennis et al. 2013).

## 3.3. Geographic Information Systems Concept and Usage Areas

With the development of technology, professionals and researchers have increasingly utilized Geographic Information Systems, making the sketch map method more valuable. Because geographic information systems are digital technologies that enable us to collect, store, manage, analyze, and represent geographic information. At the same time, GIS is a community of applications that produce and discuss geographical information by representing and analyzing spatial data (Cope and Elwood 2009). Geospatial data contain the location and its attributes. For example, to describe a building, people refer to its location as "where it is," they describe its attributes as "floor area, age."

Professionals can group geospatial data as vector and raster data. The vector data uses points, lines, and polygons as geometric objects for an exact spatial location and boundary. Linear data are more problematic in maintaining a one-to-one connection than point and area characteristics. Researchers should segment linear records into homogeneous components for all criteria, such as road width, traffic volume, and surface quality (Dueker 1987). The raster data uses a grid and grid cells to show spatial features. The cell value corresponds to the cell location's attribute (Chang 2017). We must relate the location and data such as land, buildings, highways, or streams. The connection of a feature between location information and its attribute is named the geo-relational structure (Dueker 1987). The geo-relational structure allows us to search the attributes database and match features with relevant ones with the help of GIS technology.

## 3.4. Qualitative Geographic Information Systems (QGIS)

Qualitative GIS is a branch of GIScience research focusing on knowledge production using mixed-method research approaches in geography (Merschdorf and Blaschke 2018). Using qualitative data in GIS challenges traditional notions of quantitative analysis because GIS is traditionally within quantitative and technical analyses (Alaimo and Picone 2015). This has revealed Qualitative Geographic Information Systems as one of the critical developments in recent times. Through public participation and disparate data sources, QGIS supports geographic information's production, analysis, and meaning (Baravikova 2019).

The use of qualitative methods in urban studies is not absent, but it is limited to more community studies focusing on ghettos, immigrants, poverty, and ethnic culture (Verd and Porcel 2012). GIS is a tool for analyzing socio-spatial processes (Goodchild et al. 2000).

Knigge and Cope (2006) support combining quantitative and qualitative methods in GIS analysis to create a new understanding of how social space is built and comprehended. Data can also be qualitative, not only non-numerical data but also, thanks to enabling interpretation of these situations or processes and the rich contextual details they provide in the cases. For example, interviewees' responses are qualitative data because each narrative conveys possibly rich descriptive information about these changing social and material conditions and processes and the interviewees' interpretations of them (Cope and Elwood 2009).

Integration in CAQDAS software such as MAXQDA, ATLAS ti., and NVivo of some GIS tools provides new probabilities for qualitative socio-spatial analysis (Verd and Porcel 2012). This integration benefits from the strengths of different approaches to complete each other (Mennis et al. (2013). Ose (2016) analyzed qualitative data using Microsoft Word and Excel. In this study, the researcher used Excel's conditional formatting feature.

Meyer and Avery (2009) also suggested using Excel as a qualitative data analysis tool. This method is a suitable alternative to CAQDAS as it allows systematic coding to analyze data and is also used to visualize data and create graphs.

Mennis et al. (2013) suggest that using Qualitative Geographic Information Systems (Qualitative GIS) can provide a more nuanced understanding of the urban experiences of young people. This can help identify patterns and relationships between data types, such as feelings and behaviors associated with specific activity locations. This information can inform urban planning and public health interventions tailored to young people's needs and experiences (Mennis et al. 2013).

### 3.4.1. Recent Studies with Qualitative GIS

When we look at the recent studies with Qualitative GIS, we encounter the work of Kwan and Ding, pioneers in this field. Kwan and Ding (2008), who stand out with their work in the field of qualitative GIS, used GIS Analysis (Geographic Analysis) and

Qualitative Analysis (Narrative Analysis) combined to investigate "the short-term and long-term impact of Muslim women's fear of being attacked on their daily activities and trips." They aim to understand and interpret human experience in a socio-spatial context. Because this has made personal, local, or other perceptual qualitative data accessible to us and has offered alternatives to visualizing the areas where different people or groups live and experience. They created 3D-Life Paths with geographic analysis using Activity Diary Survey. Here, they aimed to directly relate the data produced by the verbal narratives, visuals, and sounds obtained from the answers to the person's questions about what time, where, and what he did. Then, they made a 3D Narrative Analysis using In-depth interviews. They assigned interpretative labels to the text or qualitative data based on the research. They used three basic categories: Action- Spatial References, Temporal References, and Feelings - Emotions.

Mennis et al. (2013) aim to integrate qualitative methods into GIS and spatial analysis of people's experiences. While using the "Activity Diary Survey" in Kwan and Ding (2008), Mennis et al. (2013) similarly used "Activity Space Data." These data capture the places of routine activities such as life, work, and leisure that people visit daily, as well as people's perceptions, comments, and feelings about these places. For this, researchers have developed three different layers. The first is location. This layer can be a point polygon and contains the locations of home-routine activity spaces. Each record in this layer includes relevant geographic and temporal variables, length of stay, and spatial perception. The second is the path; This layer is a line, giving us distance. It consists of the shortest paths between home and activity venues and includes distances and modes of transport. The third is the subject; this layer contains each record's ID and demographic data, such as age and gender.

Bagheri (2014) also conducted a study like the above and studied Iranian women's feelings and preferences in public spaces and how women attach meanings to those urban places based on the socio-spatial experiences of women's everyday lives. This research collected photographs to illustrate visual details such as women's hijab and makeup styles. Created were spatial behavior maps to track women's numbers, activities, locations, and readily observable characteristics, such as approximate age, sex, and whether the individual was alone or in a group. Researchers marked these places in GIS as a point layer. They conducted in-depth semi-structured interviews, converted the data into text, and processed it into an attribute table.

Unlike the others, Boschmann and Cubbon (2014) did not use the GIS to collect the data they used for the analysis. They conducted a case study that included interviews with thirty-working people in Columbus, Ohio, to examine household location decision-making about job commuting and home-to-work linkages. For this, they made sketch maps that areas manually marked on the paper were re-drawn via GIS, and they processed the data obtained from the interviews and the attribute table. Then, they transferred the collected data to the GIS environment and analyzed them.

Different from the others, Ho et al. (2012) collected three data types in their study. These data are about the spatio-temporal care routines of older adults in Singapore. The first is in-depth interviews, and the second is "Go-along interviews." The third is seven days of GPS tracking activity diary. Here, researchers obtained data in a two-dimensional point-polygon form, marking places to go for daily care as activity spaces. Then, researchers added distance as the line, creating a three-dimensional space-time path, with the places for daily care overlapping with time (Z-axis) on the x and Y-axis. Researchers conduct structured/semi-structured interviews in all studies, as they are qualitative research. Another common feature is, of course, the use of GIS. However, there are some differences. While researchers used the first three studies for data collection and analysis, they collected data using different methods in the last two studies. They analyzed them by transferring them to GIS.

# CHAPTER 4

# STUDY SITE AND METHODOLOGY

## 4.1. Study Site

İzmir is the third largest city in Turkey, with a population of 4,462,056. The city has many resources and tourist attractions. It is called the "Pearl of the Aegean" and has great potential for various types of tourism. It hosts important cultural events, congresses, exhibitions, and fairs (İzmir Chamber of Commerce, 2010). As it attracts the attention of many people from all over the world and from Turkey, it also attracts the attention of students with its socio-cultural richness (Figure 15).

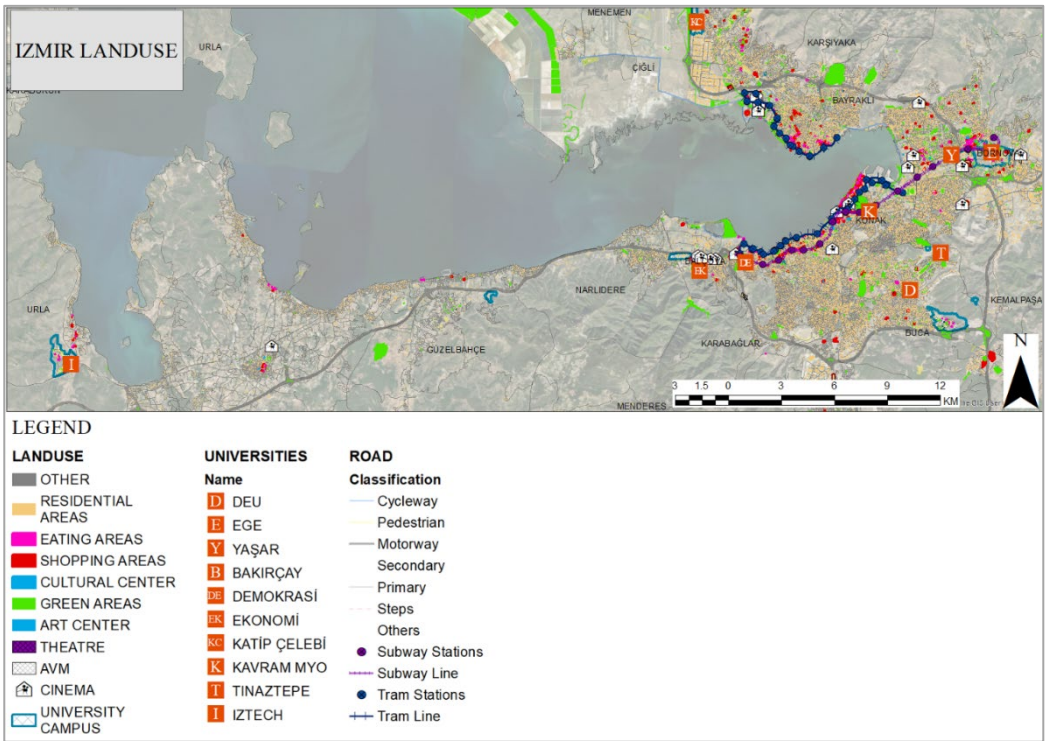



Figure 15: Land-use of İzmir.

According to the data of the Turkish Higher Education Council (2023), there are ten universities and 191345 university students in total in İzmir. Additionally, there are 7020 students at Izmir Institute of Technology (Figure 16).

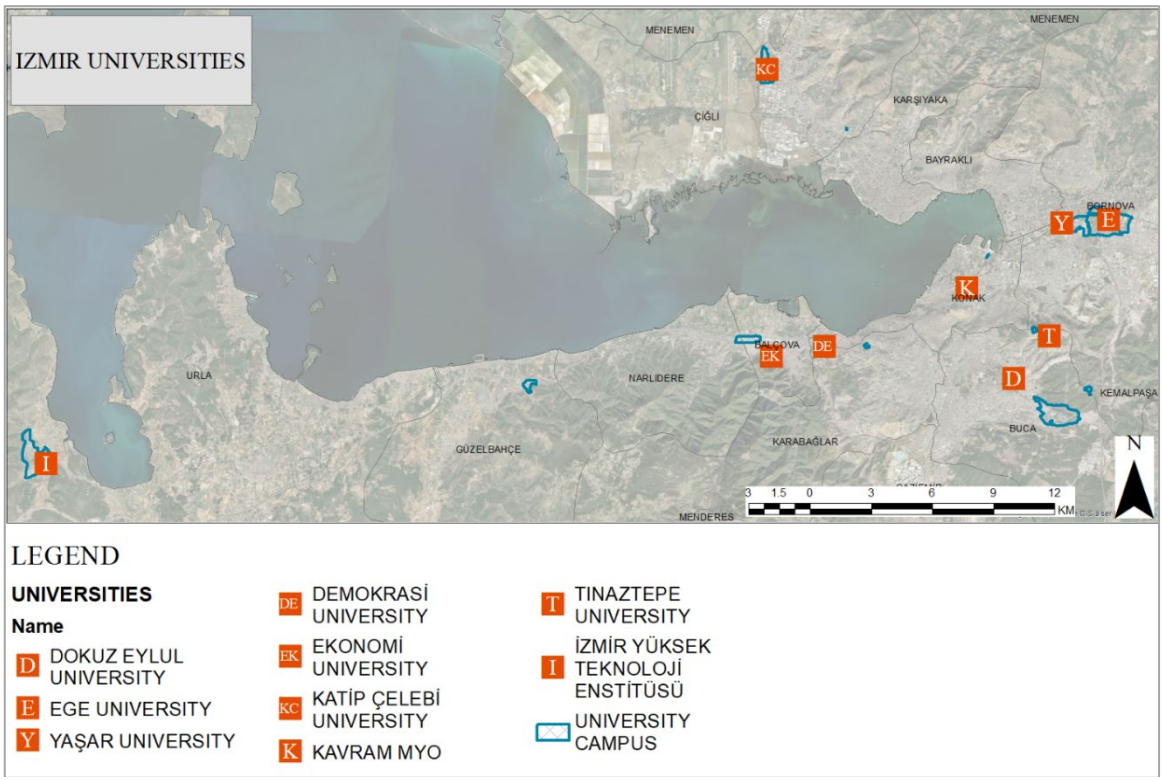



Figure 16: Universities in İzmir.

This study aims to investigate how the urban spatial experiences of university students between the ages of 18-25 change and to determine the factors that affect their spatial experiences. For this purpose, this study applied sketch maps and narrative as a mixed method to explore the urban experiences of university students. First, we survey to examine personal characteristics and earlier experiences. Secondly, we made open-ended questions and spatial markings to measure their perceptions of the city, and finally, we added spatial markings to measure their urban mobility.

Within the scope of this thesis, we selected five universities for analysis in the first place. These are (1) Izmir Institute of Technology, (2) Izmir University of Economics, (3) Izmir Democracy University, (4) Dokuz Eylul University, (5) Ege University. Online surveys prepared with Survey123. We sent it to these universities

online but did not receive enough answers from all universities. Number of responses was a few. As a result, the surveys were conducted face-to-face with Izmir Institute of Technology students, and we collected data from 90 students.

## 4.2. Study Methods for Data Collection

The literature has generally developed survey studies when analyzing people's mobility and urban experiences. Recently, researchers have begun to integrate such studies with qualitative data on the socio-spatial characteristics of cities. Unlike the others, this study aims to use a dual method by combining narrative analysis and spatial mapping in the Geographical Information Systems (GIS) environment.

Researchers reviewed the factors affecting students' urban spatial experiences under the titles of student background and space's socio-spatial characteristics. They analyzed student background characteristics such as age, gender, income, car ownership, living with or without parents, and living time in İzmir. They examined socio-spatial characteristics of the space factors such as the distance from the university and city center, sense of safety and comfort, and city of residence before the university. To collect data about these factors, I developed a user survey in the Survey123 program that allows both sketch maps and narratives. The study divided this survey into three parts. The first part is a survey about personal characteristics and earlier experiences at pre-university. The second part is open-ended questions and spatial markings about safety and comfort. The third part is spatial markings about activity spaces such as sociocultural areas, daily and general shopping areas, sports areas, and eating outside areas (Figure 17).

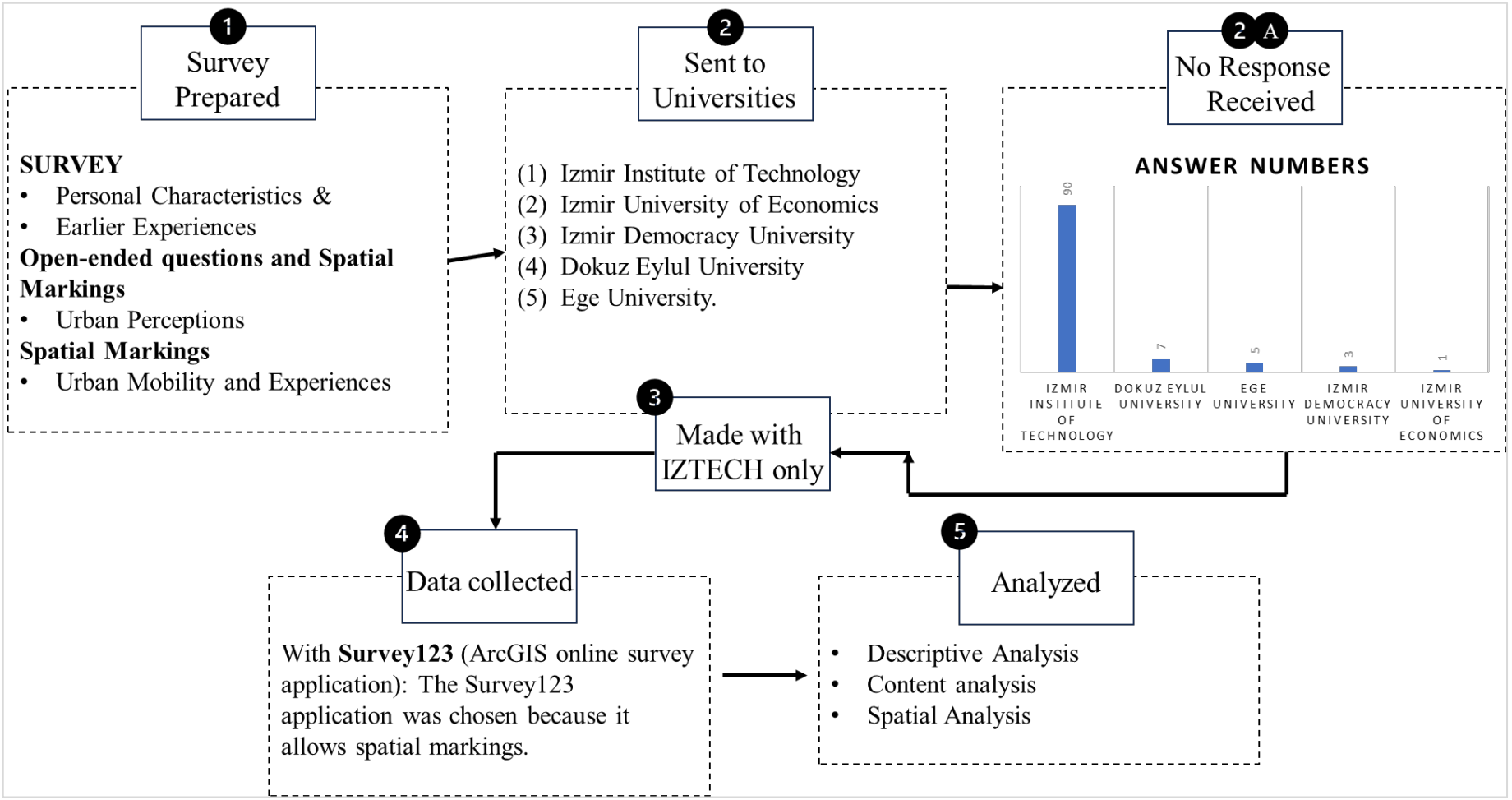



Figure 17: Data Collection Techniques in the Research.

### 4.2.1. Designing the Survey with Survey123

ArcGIS application Survey123's most significant difference from other survey applications is that it can add maps and allow marking such as points and polygons on this map (Figure 18). Appendix  A gives a user survey.

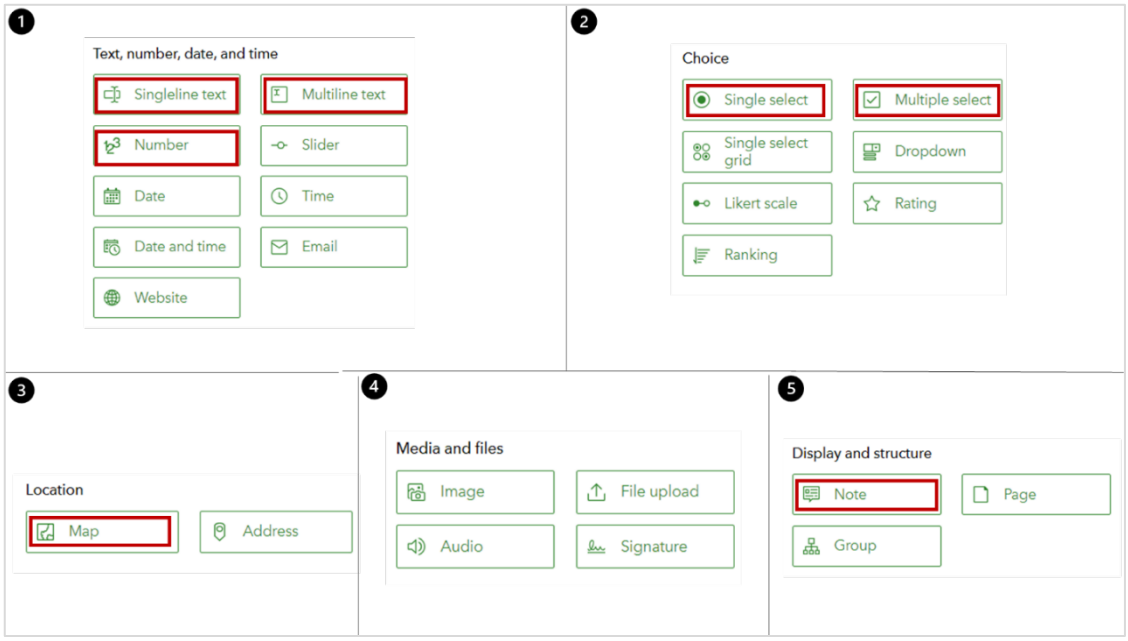



Figure 18: Survey123 Categories.

Survey123 allows map insertion and marking, but the application has a gap. The application can only capture one point in each survey. In this study, each questionnaire required adding 11 maps, but it did not allow for the capture of 11 points, giving a warning, “The answer to this question will not be submitted” (Figure 19 – Number-6).

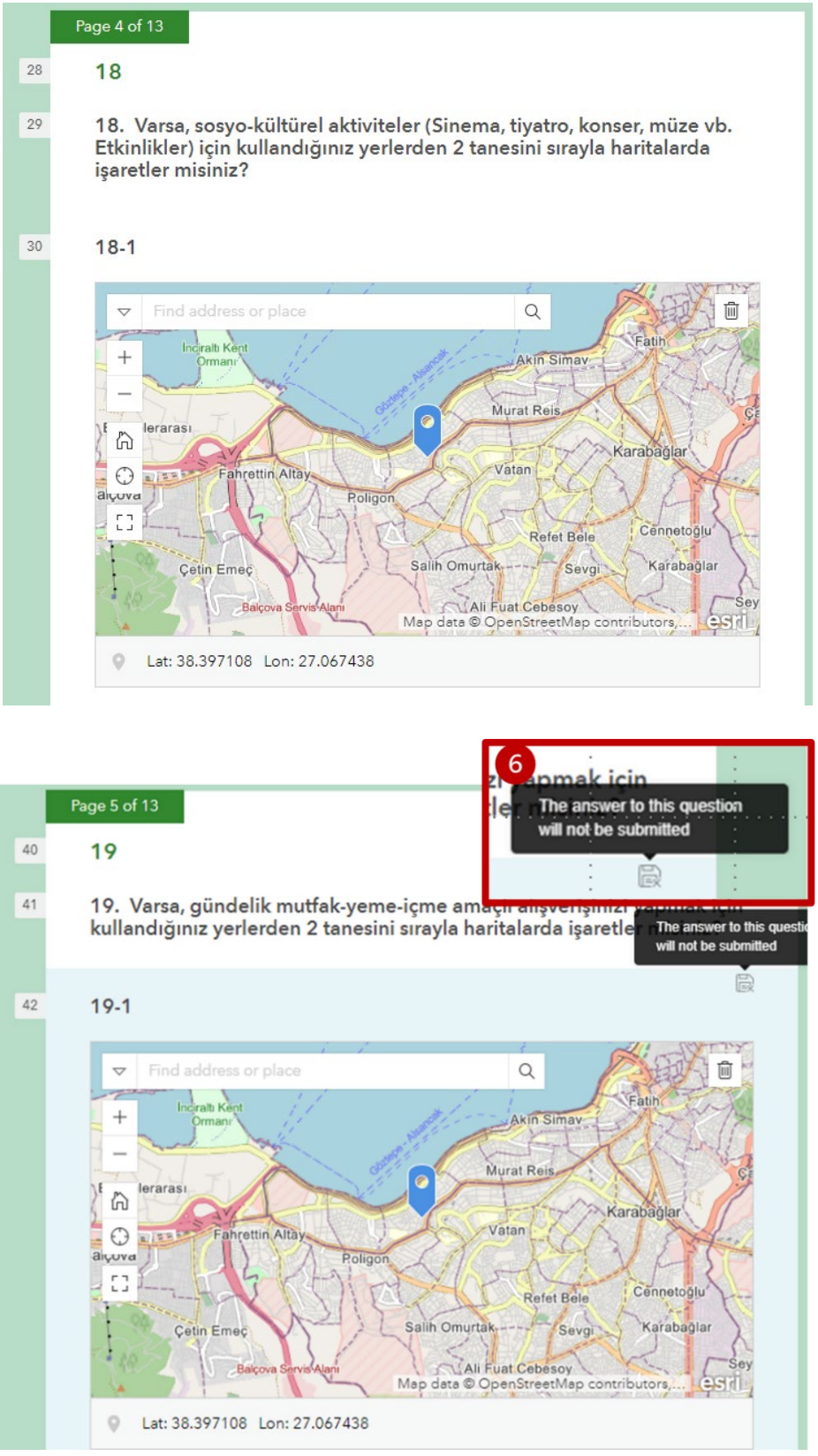



Figure 19: Survey123 Message about other maps.

I added 11 maps to the survey and added Latitude and Longitude fields linked to the maps to capture points on those maps (Figure 20 - Number 7).

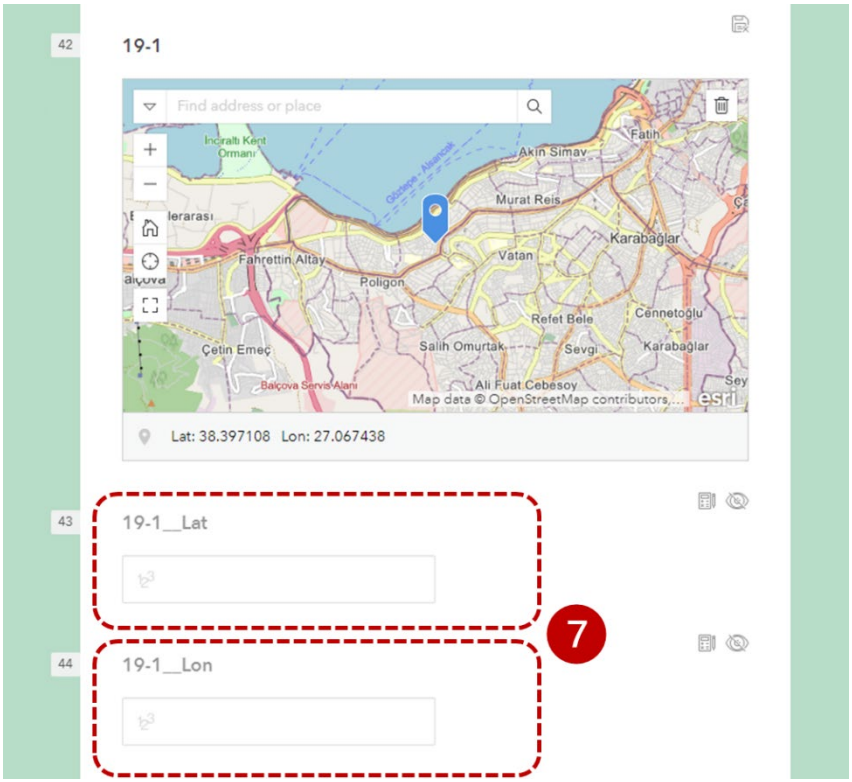



Figure 20: Survey123 adding Latitude and Longitude.

## 4.3. Data Analysis

In the literature, researchers preferred hand-drawn participatory maps and mental maps as the data collection method related to the sketch map, and they subsequently digitized them. In this thesis, the researchers introduced a new approach: online maps were added to the survey to capture spatial data, and they made markings on them.

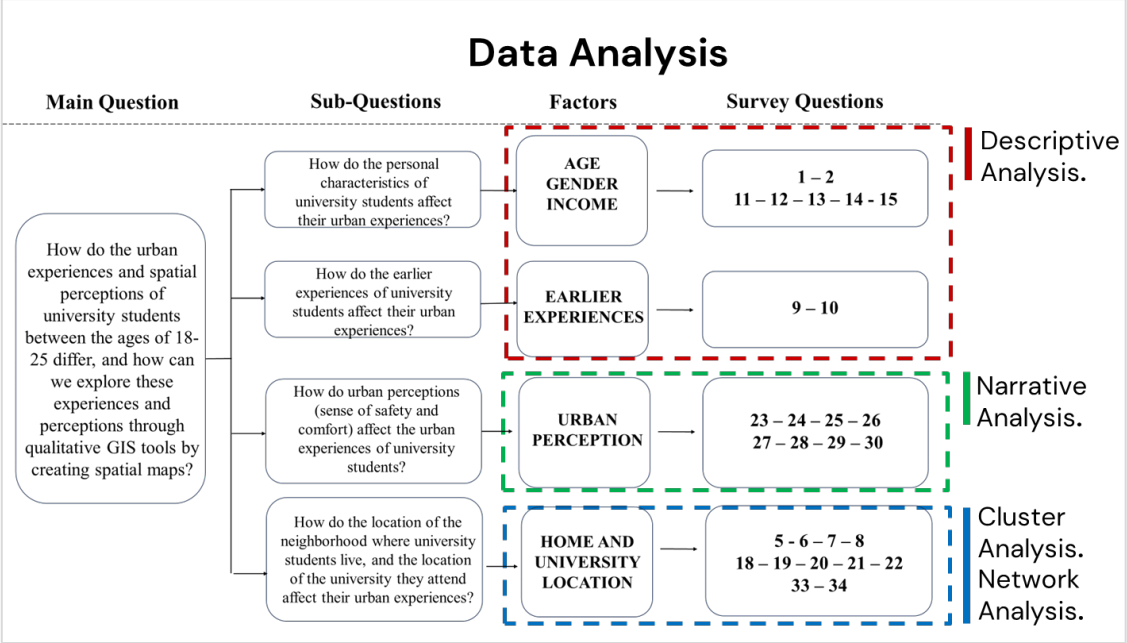



Figure 21: Relation of Research Questions and Survey Questions

Figure 21 summarizes this study's research question, sub-questions, hypotheses, and outlines. The study asked which survey questions aligned with these hypotheses and explained how to analyze the questions. Accordingly, to answer the first sub-question, researchers determined age, gender, and income as personal characteristics. For this reason, they asked about age and gender in the first and second questions of the survey. In questions 11-15, the status of working in a paid job, the status of scholarship, personal income, household income, and vehicle ownership to determine income.

To answer the second sub-question, researchers investigated students' past experiences. For this reason, they included it as ranks 9-10 in the survey. The questions asked about how long they had lived in Izmir and the differences between Izmir and the city they lived in before university.

Although all questions have descriptive side questions in the first two sub-questions, researchers will use descriptive analysis for the survey questions asked for the first two sub-questions. The primary purpose is to obtain general information about the student and understand how their characteristics affect their urban experience. All data is transferred to Excel and edited. I made tables for the questions shown in Figure 22 according to gender, income, and life expectancy in Izmir.

To answer the third sub-question, researchers investigated students' sense of safety and comfort. For this, they asked questions 23-30. These questions were about the

safety precautions they take while using public transportation, whether they feel safe in the neighborhood and building they live in, where they enjoy going, do not enjoy, do not want to be, consider safe, and where they can be at night.

The third sub-question is about perception, and open-ended questions were asked in the survey to answer this sub-question. Therefore, researchers will analyze these open-ended questions narratively. Combining the answers given with spatial maps will show us the spatial equivalents of verbal expressions. We used narrative analysis to investigate students' perceptions of safety and comfort. For this, we used Excel to transfer our primary data. Here, we coded the answers to open-ended questions using Excel instead of CAQDAS programs. Researchers performed two types of coding. The first is to code the answers according to the literature. The second is to code as positive and negative. We then combined these codes with spatial data in ArcGIS and produced my maps. Appendix B and C give narrative data.

To answer the fourth sub-question, researchers asked about the different areas students use at school, at home, and in the city. Questions 5-8 discuss how and where the accommodation of students during their university education. Questions 18-22 are about where people use places for socio-cultural activities, daily and general shopping, sports, and eating out. Questions 33-34 are questions about the campus.

The fourth sub-question concerns living space, activity areas, and the university. Researchers use spatial analyses to answer these questions. Here, the study tests the clustering, proximity, and usage times of the uses in the space. We will start the cluster analysis by first analyzing the places where all students live. Later, researchers will compare socio-cultural areas, daily and general shopping areas, sports areas, and outdoor eating areas. They will compare home clusters with activity area clusters. Then, researchers will conduct network analysis with 2-4 selected students to examine the relationship between their activity areas and home locations. We used the same Excel table to perform Cluster and Network Analysis. The researchers recorded the latitude and longitude data of the point data collected for each map question in the surveys as a single line in Excel. The researchers organized all the points to add them to the GIS environment and to prevent students' data from being lost. Then, I transferred this data to the GIS environment with the add data x-y tool and associated it with Excel data.

Point cluster analysis detects areas where points are concentrated and separated by empty or sparse areas. Points not part of a cluster are labeled as noise (Figure 22). It requires two inputs from us for the analysis to start. The first is the minimum number of

points to be considered a cluster. Any cluster with fewer features (points) than is provided when we enter this number is considered noise. Second, limit the search range to. Maximum distance is determined to assume that these features (points) are part of the same cluster. Given a value, the tool uses the specified distance to separate dense clusters from sparser points, which labels noise.

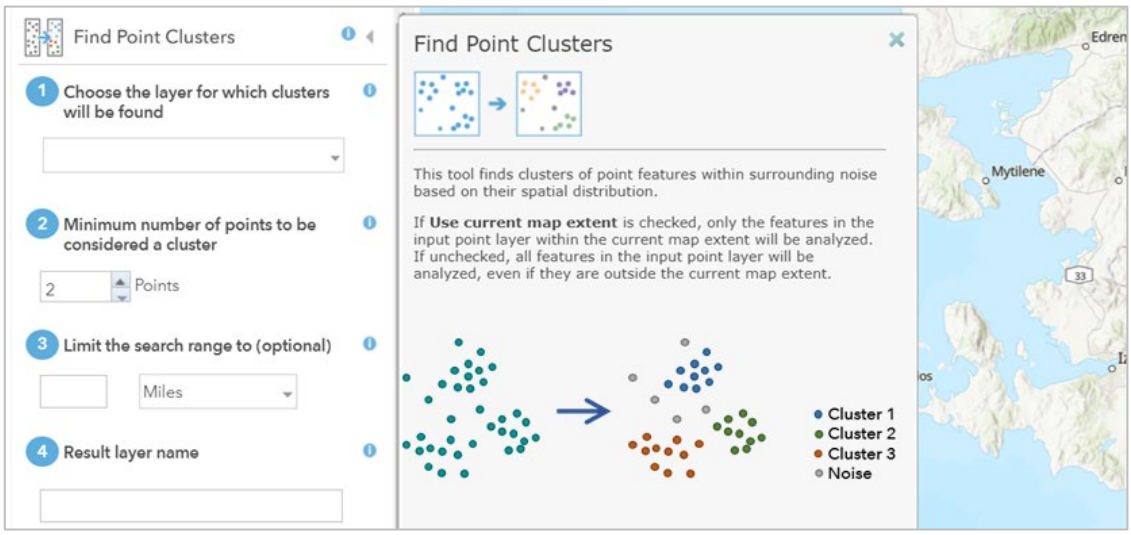



Figure 22: Point Cluster Analysis
(Source: "Find Point Clusters (GeoAnalytics Desktop)-ArcGIS Pro | Documentation," n.d.)

In this study, the minimum number of points considered a cluster two are taken for cluster analysis because a group consists of at least two people. We make three attempts to limit the search range. These trials are made based on a walking distance of 400-800-1200 meters using home location data, and the most suitable value is selected.

Figure 23 shows the 400-meter example. This distance also refers to a 5-minute walking distance. In this example, we form a total of 10 clusters. I tried the 800-meter sample. This distance also refers to a 10-minute walking distance. In this example, we create a total of 9 clusters. Then, I tried the 1200-meter example. This distance also refers to a 15-minute walking distance. In this example, we form a total of 8 clusters. When we compared all three samples, 400 meters was chosen as the limit for the search range because it created more clusters in terms of reaching the data, and 400 meters (5 minutes walking distance) was a suitable range.

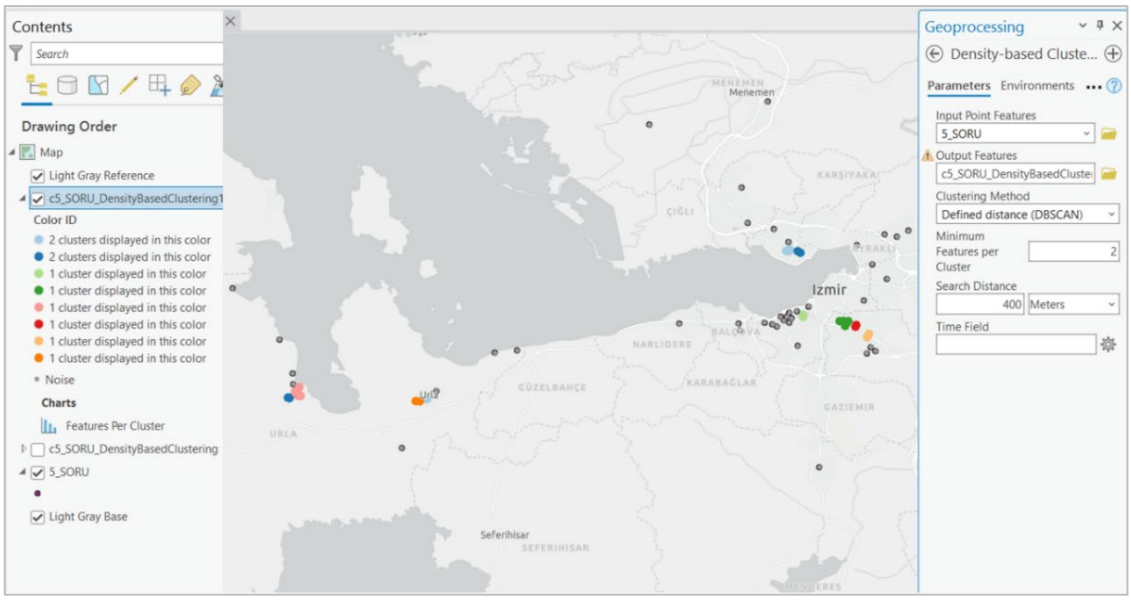



Figure 23: Cluster Analysis Example (400 m distance).

# CHAPTER 5

# RESULT

This section presents the answers to the surveys conducted with university students. The results show hypotheses under two main headings. These are the respondents' individual characteristics and the place's socio-spatial character. Under the heading of individual characteristics, the results about age, gender, income, car ownership, living with or without parents, and living time present descriptive analysis. We gave the results under the headings of the socio-spatial character of the place, distance to the university and city center, sense of security and comfort, and city of residence before the university, with cluster and network analyses.

## 5.1. Individual Characteristics of Respondents

The survey was completed with 90 university students from İzmir Institute of Technology, 32 (36%) male and 58 (64%) female. Table 4 shows the distribution of university students' age and gender. According to this table, the number of female students participating in the survey is higher than that of male students—figure 24 shows where students live according to university students' gender.

Table 4: Distribution of University Students' Age and Gender.

| | | **Total** | **Total (%)** |
|---|---|---|---|
| **GENDER** | Male | 32 | 36 |
| | Female | 58 | 64 |
| | No Response | 0 | 0 |
| **AGE** | 18 - 21 | 28 | 31 |
| | 22 - 25 | 61 | 68 |
| | No Response | 1 | 1 |
| | Total | 90 | 100 |

We examined students' income to explain the relationship between their income and their urban experience. We asked students five questions to determine their income levels. We ask about the employment and scholarship status intended to measure individual incomes. The number of yes answers to the questions about the status of working in a paid job and the status of a scholarship, which I ask to find out the income of students, is important to us. As seen in Table 5, the yes answer of male students to the question status of working in a paid job is 21.88%, and the yes answer of female students is 13.79%.

Regarding the status of the scholarship question, the yes answer of male students is 40.63%, and the yes answer of female students is 58.62%. Table 5 shows the students' income. According to the table, there are 20 (%62.50) male students whose income is between 4 and 6 times more than 750 TL. There are 35 (%60.34) female students whose income is between 2 and 3 times more than 750 TL (Figure 24). There are 14 students with an income of 750 TL and below 750 TL, and 7 (50%) live in Karabağlar.

Looking at the student's household income, we see that 14 (44%) male students have an income equal to twice the minimum wage, and 13 (22%) female students have an income of three times the minimum wage, as seen that 21 (%16) of female students have an income equal to the minimum wage. There are 19 students with a household income of minimum wage or below minimum wage, and 8 (42%) live in Urla. Table 6 also shows students' vehicle ownership. We asked the students, "Do they have any vehicles they use in Izmir?" According to the answers, 41% of male students have a car, while 21% of female students have one. Another thing that stands out is the absence of any vehicle. When we look at students' car ownership (the vehicle they use in Izmir), we see that twenty-five students own a car—five live in Karabağlar, five in Buca, and four in Urla.

Table 5: Working and Scholarship Status

| STATUS OF WORKING IN A PAID JOB | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|
| Yes | 7 | 21.88 | 8 | 13.79 | 15 | 16.67 |
| No | 25 | 78.13 | 49 | 84.48 | 74 | 82.22 |
| No Response | 0 | 0.00 | 1 | 1.72 | 1 | 1.11 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |
| **STATUS OF SCHOLARSHIP** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
| Yes | 13 | 40.63 | 34 | 58.62 | 47 | 52.22 |
| No | 19 | 59.38 | 24 | 41.38 | 43 | 47.78 |
| No Response | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |
| **INCOME** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
| Less than 750 TL | 2 | 6.25 | 6 | 10.34 | 8 | 9 |
| 750 TL | 2 | 6.25 | 4 | 6.90 | 6 | 7 |
| 750 TL up to 2 times | 5 | 15.63 | 12 | 20.69 | 17 | 19 |
| 750 TL up to 3 times | 2 | 6.25 | 12 | 20.69 | 14 | 16 |
| 750 TL up to 4 times | 7 | 21.88 | 11 | 18.97 | 18 | 20 |
| 750 TL up to 5 times | 7 | 21.88 | 7 | 12.07 | 14 | 16 |
| 750 TL 6 times and more | 6 | 18.75 | 5 | 8.62 | 8 | 9 |
| No Response | 1 | 3.13 | 1 | 1.72 | 5 | 6 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |
| | | | | | | |
| **HOUSEHOLD INCOME** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
| Less than Minimum Wage | 0 | 0 | 4 | 7 | 4 | 4 |
| Minimum Wage | 4 | 13 | 12 | 21 | 16 | 18 |
| Minimum Wage up to 2 times | 14 | 44 | 12 | 21 | 26 | 29 |
| Minimum Wage up to 3 times | 8 | 25 | 13 | 22 | 21 | 23 |
| Minimum Wage up to 4 times | 2 | 6 | 6 | 10 | 8 | 9 |
| Minimum Wage up to 5 times | 0 | 0 | 5 | 9 | 5 | 6 |
| Minimum Wage 6 times and more | 3 | 9 | 2 | 3 | 5 | 6 |
| No Response | 1 | 3 | 4 | 7 | 5 | 6 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |
| | | | | | | |
| **VEHICLE OWNERSHIP** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
| Car | 13 | 41 | 12 | 21 | 25 | 27.78 |
| Scooter | 0 | 0 | 1 | 2 | 1 | 1.11 |
| Motorcycle | 1 | 3 | 1 | 2 | 2 | 2.22 |
| Bicycle | 1 | 3 | 1 | 2 | 2 | 2.22 |
| None | 15 | 47 | 42 | 72 | 57 | 63.33 |
| No Response | 2 | 6 | 1 | 2 | 3 | 3.33 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |

Another important factor affecting students' urban experience is where they live, whether they live with their families or separately, and how long they have lived in the city where they studied at university. Figure 24 shows the distribution of the districts where students live.

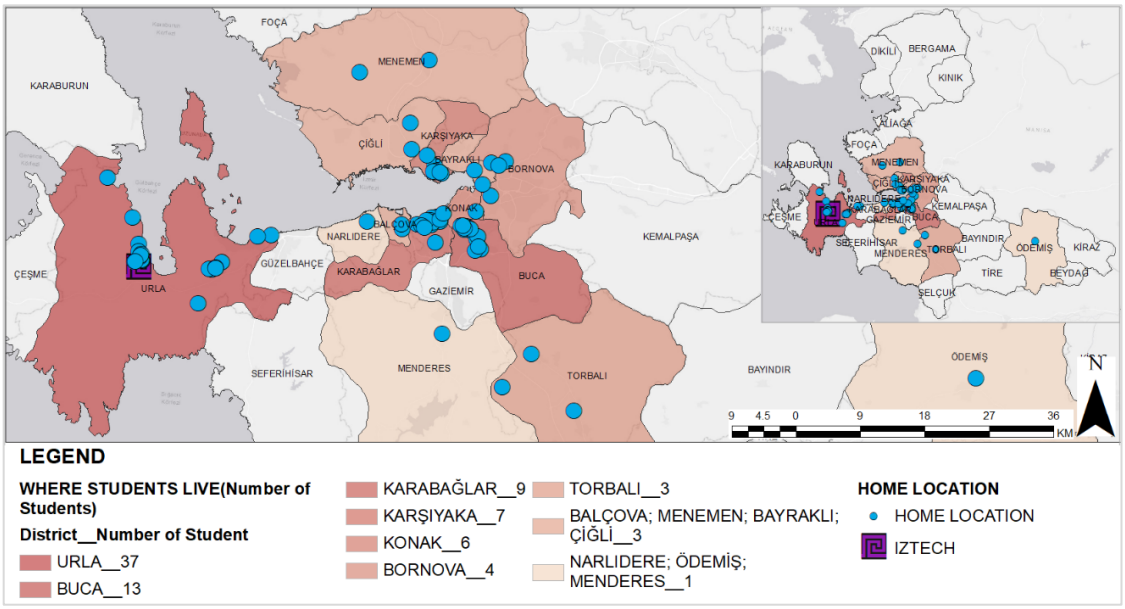



Figure 24: Home Location of Students.

According to the research results, 56 percent of male students live with their families, while 26 percent of female students live with their families. Another important difference is that while no male students stay in state dormitories, 26% of female students stay in state dormitories (Table 6).

Table 6: Accommodation Type of Students.

| ACCOMMODATION TYPE | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|
| With Parents | 18 | 56 | 15 | 26 | 33 | 37 |
| With Friends at home | 4 | 13 | 10 | 17 | 14 | 16 |
| KYK Dormitory | 0 | 0 | 15 | 26 | 15 | 17 |
| Private Dormitory- Apart | 3 | 9 | 9 | 16 | 12 | 13 |
| Alone at home | 6 | 19 | 9 | 16 | 15 | 17 |
| No Response | 1 | 3 | 0 | 0 | 1 | 1 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |
| **KIND OF ACCOMMODATION PROBLEM** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
| Low Number of Housing | 4 | 12 | 14 | 17 | 18 | 15 |
| High Rents | 8 | 24 | 25 | 30 | 33 | 28 |
| High Private Dormitory Fees | 4 | 12 | 9 | 11 | 13 | 11 |
| Attitudes of Housing Owners Towards Students | 1 | 3 | 5 | 6 | 6 | 5 |
| Not Finding Quality Housing | 5 | 15 | 10 | 12 | 15 | 13 |
| Inadequate State Dormitory Conditions | 2 | 6 | 6 | 7 | 8 | 7 |
| Not Finding a Roommate | 1 | 3 | 3 | 4 | 4 | 3 |
| No Response | 9 | 26 | 11 | 13 | 20 | 17 |
| Total | 34 | 100 | 83 | 100 | 117 | 100 |

When we asked whether the students encountered any problems while looking for a place to stay, 19% of the male students who did not live with their families answered yes, while 50% of the female students answered yes. In addition to this question, we asked the students who answered yes to choose the problem they experienced. According to Table 7, students' most significant problem was high rents; the ratio for female students was 30% and male students 24%. The second biggest problem was not finding quality housing for five male students (15%) and the low number of accommodations for fourteen female students (17%) (Table 6).

Students' urban experiences are also related to the duration of their stay in that city. The period of undergraduate education is four years, and it can take about 5-6 years with English preparatory education and extension. Therefore, as the average of this period, we have taken the fact that the students have been living in İzmir for less or more than three years as a criterion that will affect their urban experience.

Table 7: Living Time in İzmir.

| LIVING TIME IN IZMIR | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|
| Less than three years | 4 | 13 | 15 | 26 | 19 | 21 |
| More than three years | 28 | 88 | 42 | 72 | 70 | 78 |
| No Response | 0 | 0 | 1 | 2 | 1 | 1 |
| Total | 32 | 100 | 58 | 100 | 90 | 100 |

Table 7 shows that 42 (72%) female students and 28 (88%) male students from outside the city have lived in İzmir for over three years. We can say that 78% of students from outside the city are familiar with the city (Table 9). In addition, we looked at the distance of the city from which the students outside of Izmir came to Izmir and whether it was a metropolitan (Figure 25).

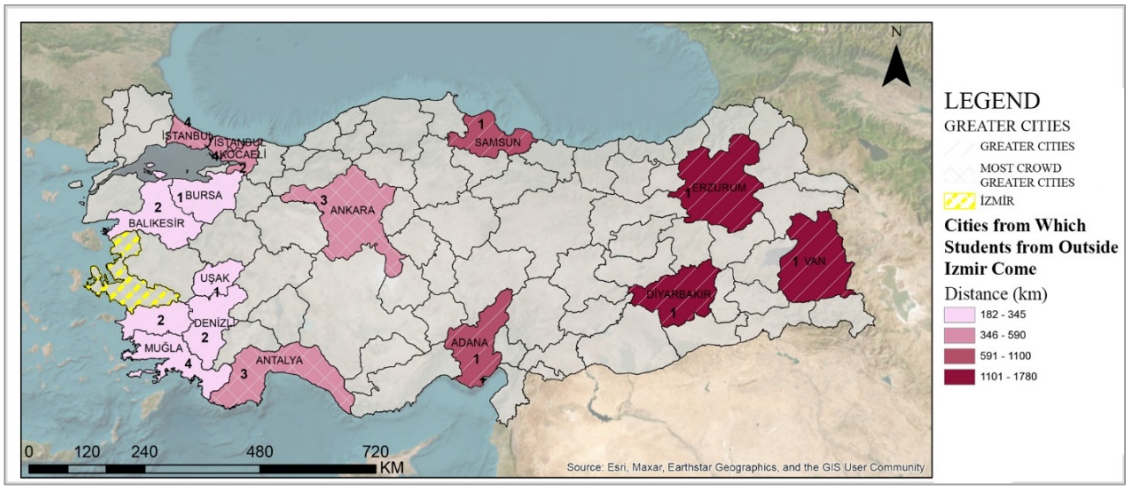



Figure 25: Cities of Students Come.

## 5.2. Location and Perceived Characteristics of Urban Experiences

In this section, we examined which areas of the city and for what purpose they used by university students, which modes of transportation they preferred to go there, and the reasons that affect them. Creating groups under three headings:

- Places used for socio-cultural activities (such as cinema, theatre, concert, museum, etc.).

- Places for daily shopping (kitchen, food, and beverage), general shopping (clothes, stationery, etc.), and outside eating and drinking areas.
- Open and closed areas you use for sports, walking, walking, and resting.

### 5.2.1. Location of Activity Areas

While describing the students' activity areas in spatial terms, I divided the city into nine regions to understand their location in Izmir (Figure 26).

The first region is the University (Izmir Institute of Technology) surroundings and Gülbahçe village. Gülbahçe village has a small center where people can meet basic needs.

The second and third regions comprise the center and the coast of the Urla district. Urla is one of the prominent districts of Izmir with its historical and cultural structure. It has a historical city center that hosts many socio-cultural activities and basic needs.

The fourth region shows the Balçova and Fahrettin Altay/Üçkuyular parts of the city. This is a connection and transition zone. It is the first tram, metro, and bus transfer center stop. It is close to the city center and the city's exit point.

The fifth district is Konak, the center of the city.

The sixth region is the Alsancak district of Konak district. This is the city's Central Business District. It has a large green area by the seaside at Kordon and socializing areas of the city. In addition, Kültürpark, located in this region, is an essential green area and cultural center.

The seventh region is the Buca district.

The eighth region is the Bornova district. Bornova district is also a student area where students live densely due to Ege University. There is a center called Küçükpark here, a metro station, and a bus transfer center.

The ninth region is the Karşıyaka district. This district offers various activities along the coastline.

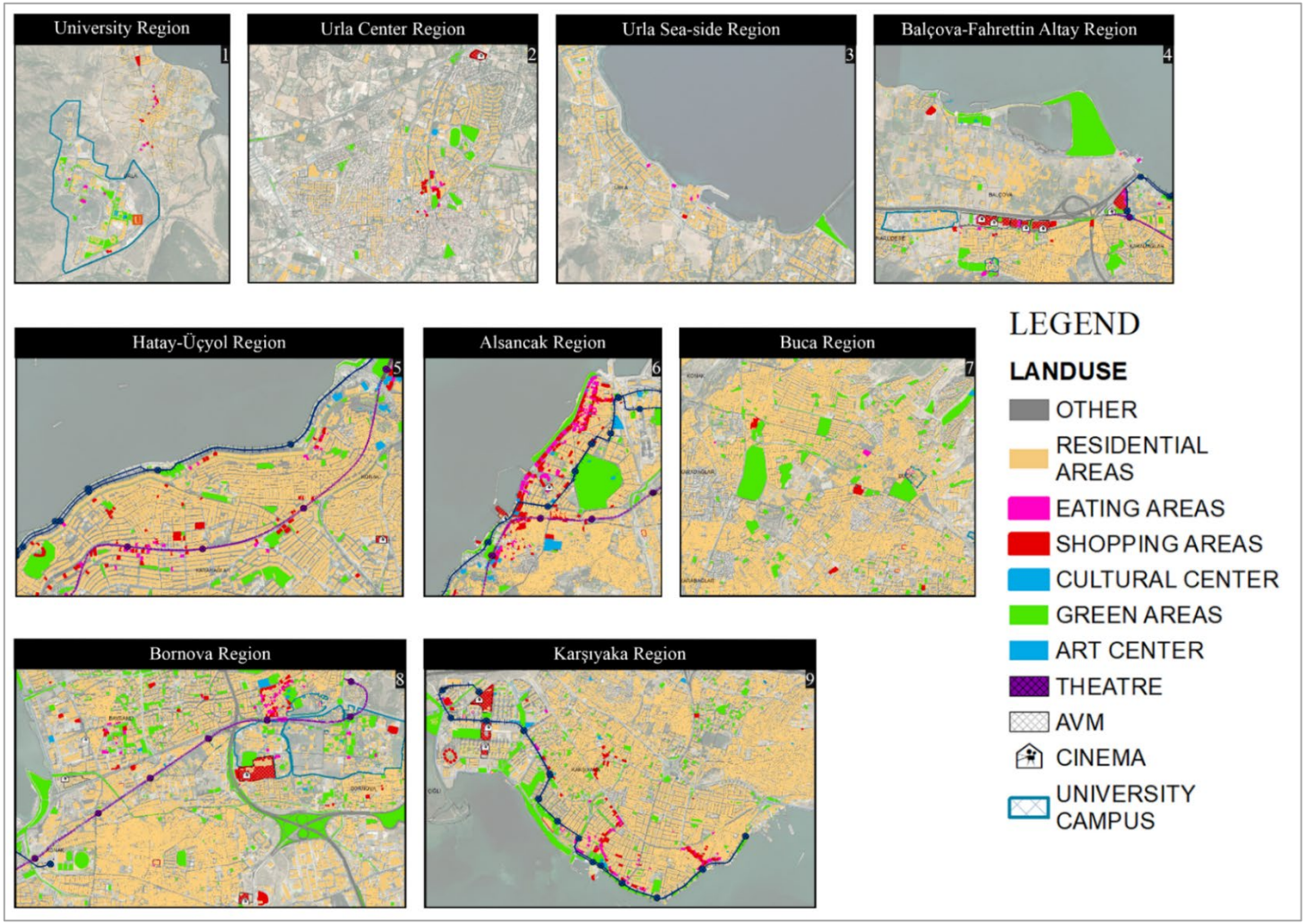



Figure 26: Landuse of İzmir (Detailed).

When looking at students' activity areas, we will first look at their home locations—and ask responders to mark the approximate location of where they live. According to 41% of the students live in Urla and Gülbahce. Table 8 shows that the university is in Gülbahçe, a district of Urla. Then we saw that Buca is the second most-lived place with 14% and Karabağlar is the third with 10% (Figure 27).

Table 8: Distribution of Students by Districts They Live in and Gender.

| DISTRICT | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|
| URLA | 0 | 0.0 | 8 | 13.8 | 8 | 8.9 |
| Gülbahçe | 6 | 18.8 | 23 | 39.7 | 29 | 32.2 |
| BUCA | 4 | 12.5 | 9 | 15.5 | 13 | 14.4 |
| KARABAĞLAR | 3 | 9.4 | 6 | 10.3 | 9 | 10.0 |
| KARŞIYAKA | 3 | 9.4 | 4 | 6.9 | 7 | 7.8 |
| KONAK | 5 | 15.6 | 1 | 1.7 | 6 | 6.7 |
| BORNOVA | 2 | 6.3 | 2 | 3.4 | 4 | 4.4 |
| TORBALI | 3 | 9.4 | 0 | 0.0 | 3 | 3.3 |
| BALÇOVA | 1 | 3.1 | 1 | 1.7 | 2 | 2.2 |
| MENEMEN | 1 | 3.1 | 1 | 1.7 | 2 | 2.2 |
| BAYRAKLI | 2 | 6.3 | 0 | 0.0 | 2 | 2.2 |
| ÇİĞLİ | 1 | 3.1 | 1 | 1.7 | 2 | 2.2 |
| NARLIDERE | 0 | 0.0 | 1 | 1.7 | 1 | 1.1 |
| ÖDEMİŞ | 1 | 3.1 | 0 | 0.0 | 1 | 1.1 |
| MENDERES | 0 | 0.0 | 1 | 1.7 | 1 | 1.1 |
| TOTAL | 32 | 100 | 58 | 100 | 90 | 100 |

Figure 27 looks at the cluster analysis of the places where students live. There are 10 clusters in total. Three of these clusters occur in Gülbahçe, 1 in Urla, 1 in Karabağlar, 3 in Buca, and 2 in Karşıyaka.

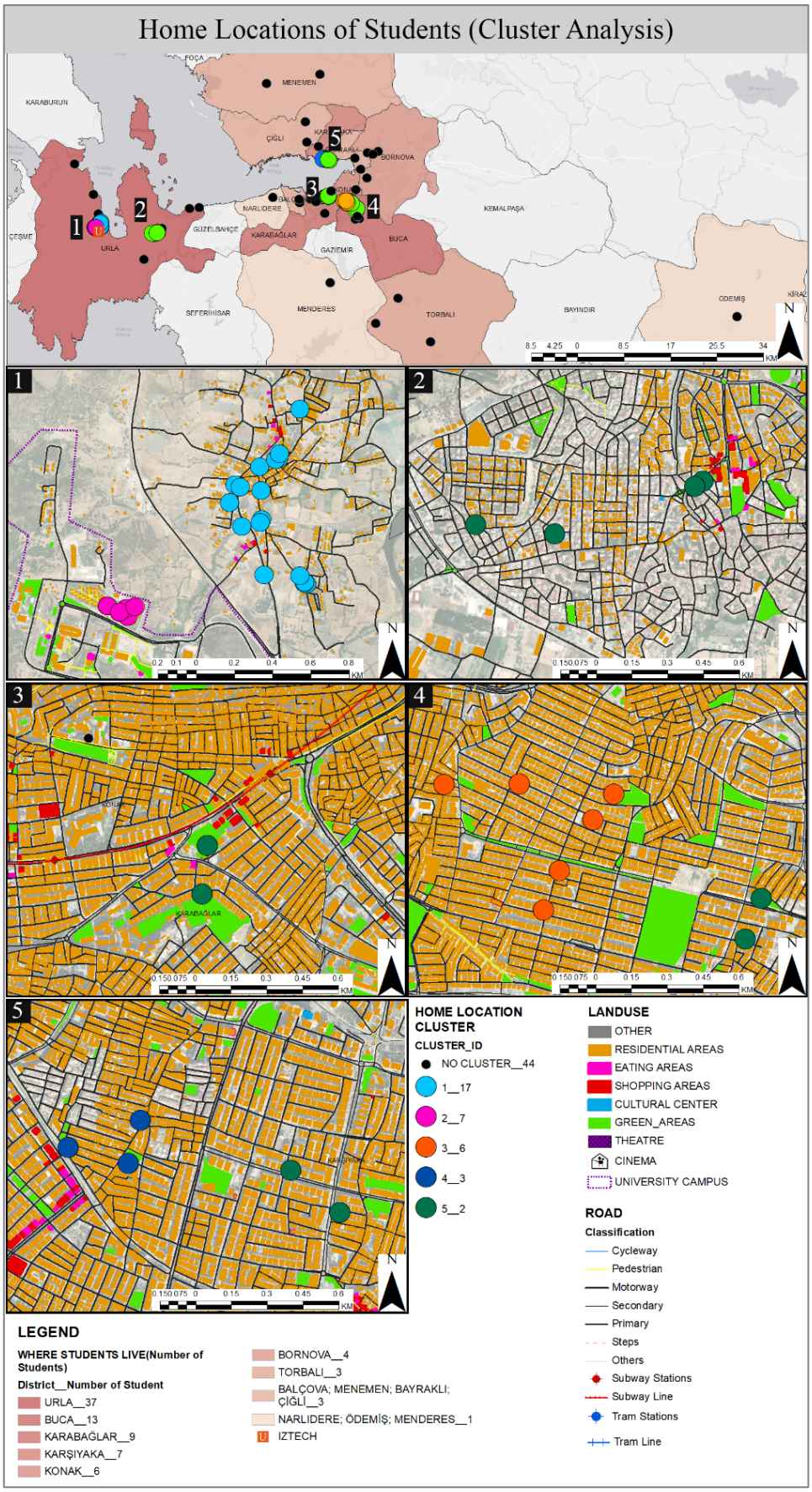



Figure 27: Home Locations of Students (Cluster Analysis).

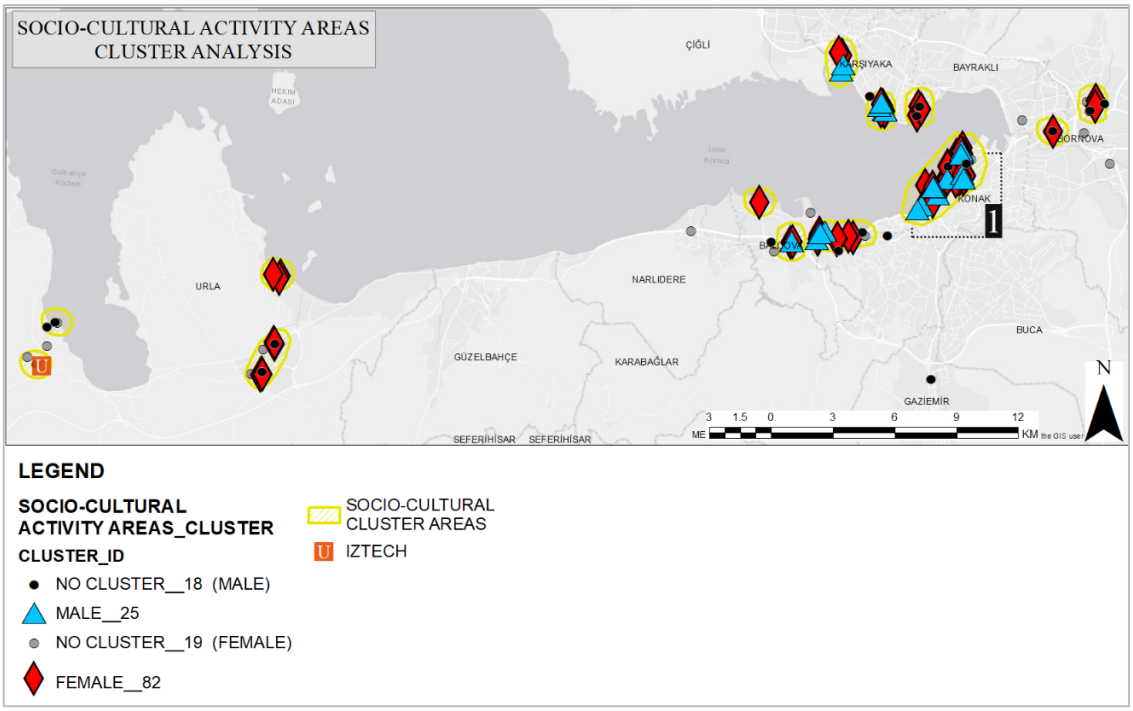



Figure 28: Socio-cultural Activity Areas Using Students (Cluster Analysis).

Figure 28 shows the socio-cultural activity areas cluster analysis by gender. Accordingly, male students marked 43 places, and 18 (41.86%) do not form a cluster. Male students formed 9 clusters in total, and 6 of them are in Konak. Only men use the Urla Center, Urla coast, and Bornova region. Female students marked 101 places, and 19 (18.81%) did not form a cluster. Female students formed 19 clusters in total, and 9 of them are in Konak. According to the general cluster analysis, although there is a cluster in the university area, when we take gender differences into account, we see that there is no cluster in this area. We see that the distributions by gender are similar in other regions.

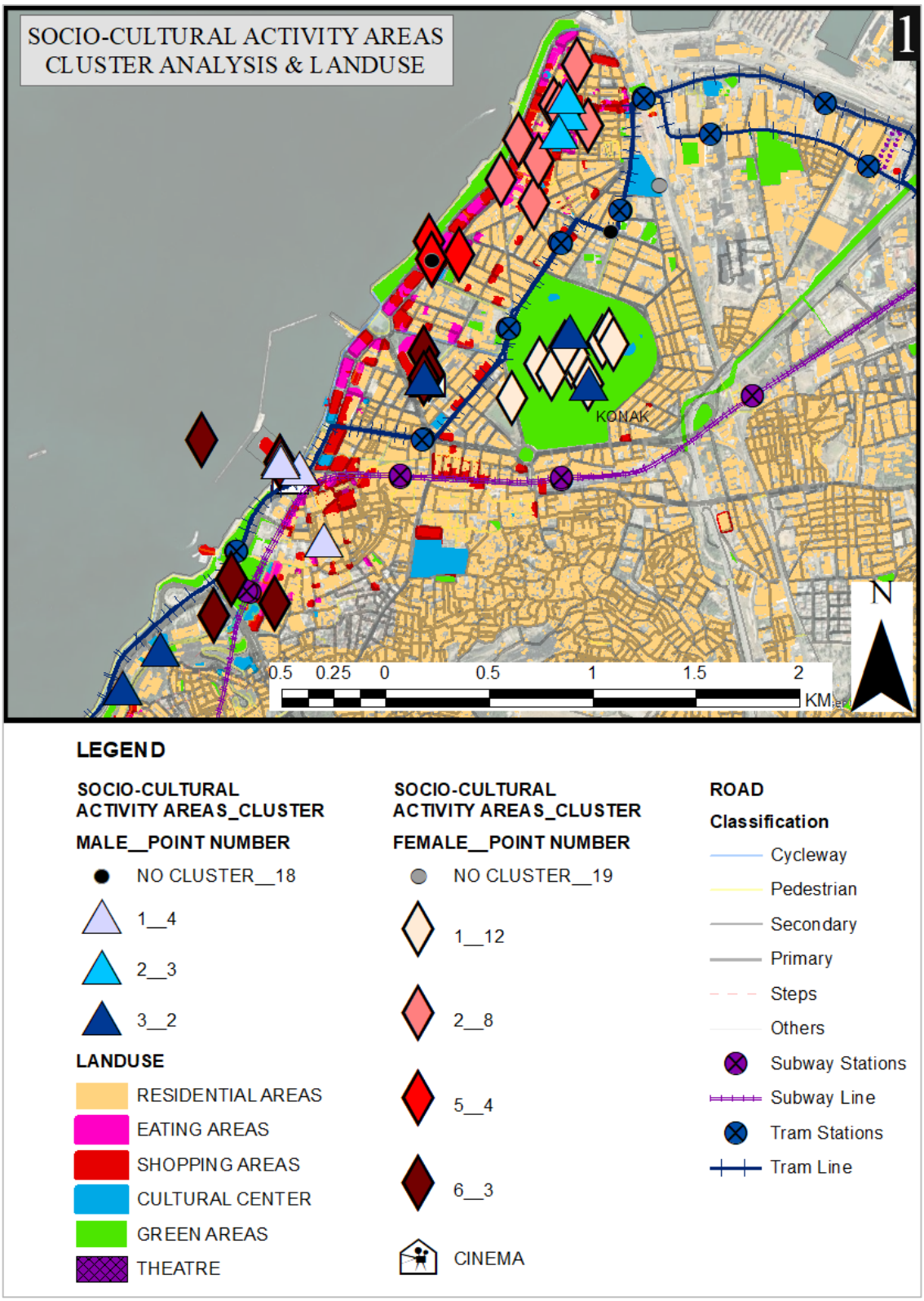



Figure 29: Socio-cultural Activity Areas Using Students (Alsancak Region Landuse).

The region with the most clusters is the Alsancak region, with 11. Figure 29 shows that students prefer Konak Pier Avm, Kıbrıs Şehitleri Caddesi, and Kültürpark.

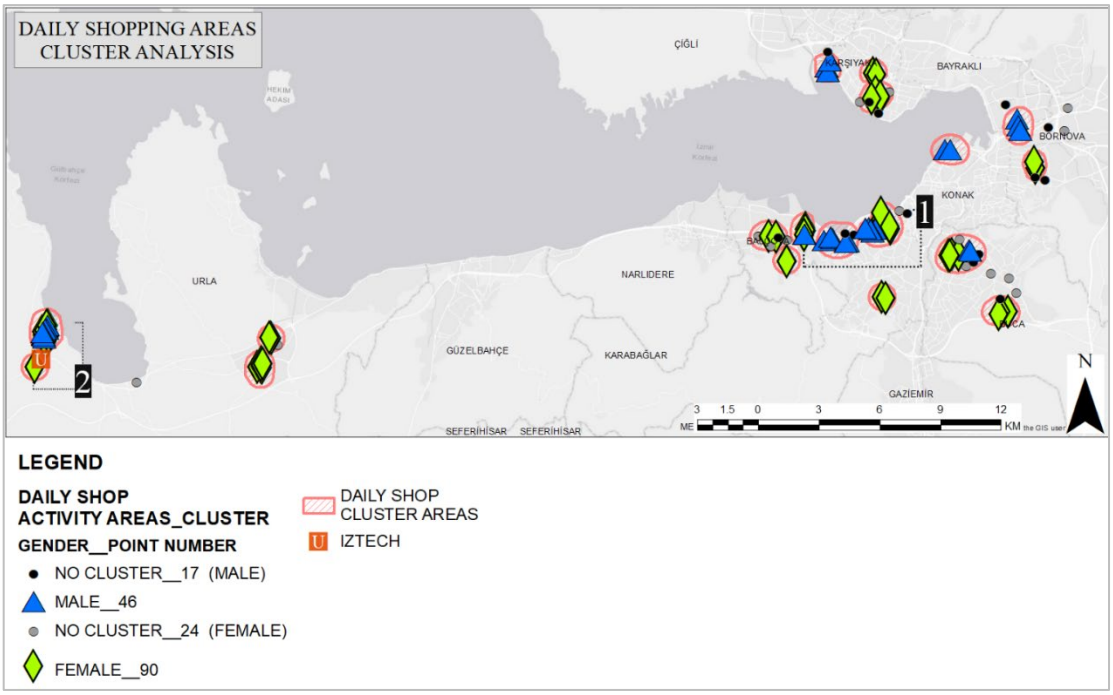



Figure 30: Daily Shopping Areas Using Students (Cluster Analysis).

Figure 30 shows the places students use for daily shopping activities by cluster analysis by gender. Accordingly, male students marked 63 places, and 17 (26.98%) do not form a cluster. Male students formed 9 clusters, and 3 of them are in Karabağlar. We see that only men use the Alsancak region. Female students marked 114 places, and 24 (21.05%) do not form a cluster. Urla Center, Karabağlar, Buca, and Balçova have only female students clusters. Female students have formed 15 clusters: 4 in Urla, 3 in Karabağlar, and 3 in Konak.

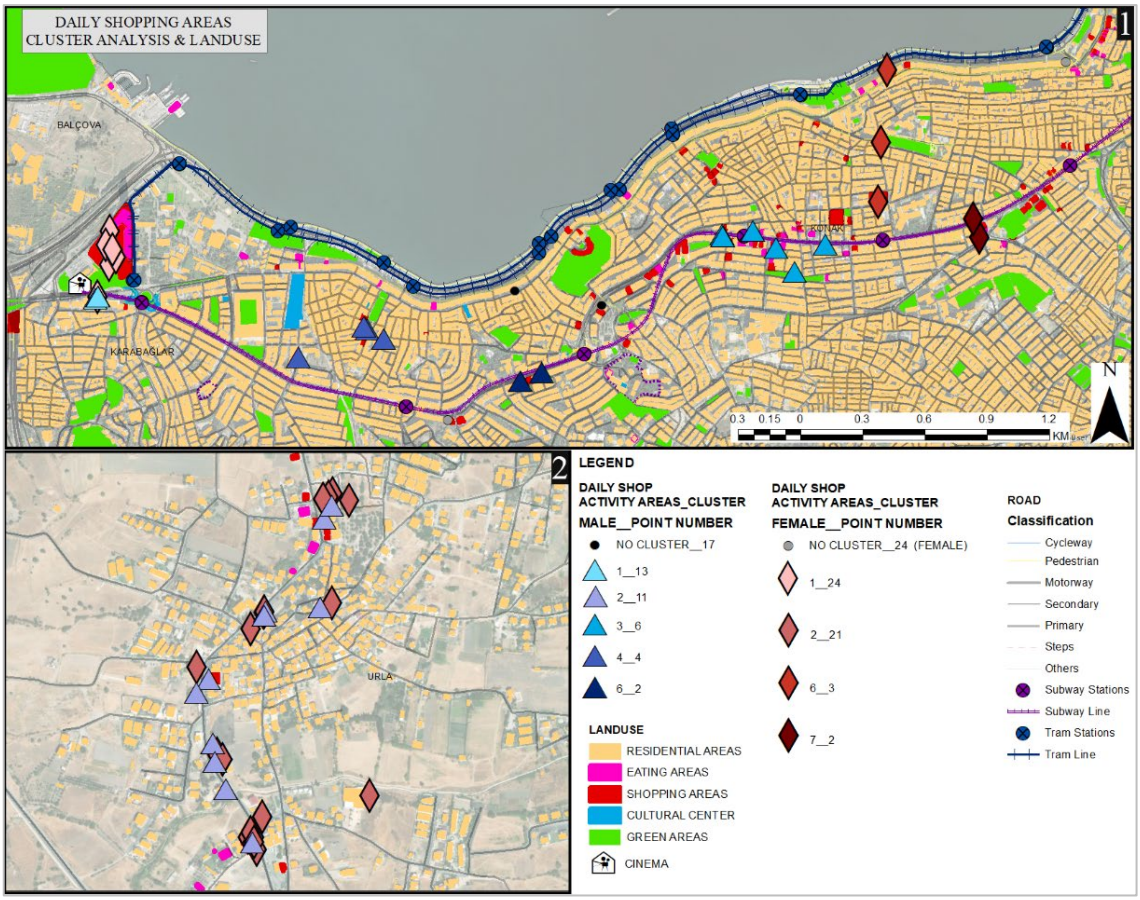



Figure 31: Daily Shopping Activity Areas Using Students (1-Konak-Karabağlar and 2-University Region Landuse)

The region with the highest number of clusters is Konak-Karabağlar and University region. Figure 31-1 shows concentration on the street where the metro line is located, shown with the black line, separating İstinye Park AVM and Konak and Karabağlar districts. Figures 31-2 show that it is located on Gülbahçe Merkez Street.

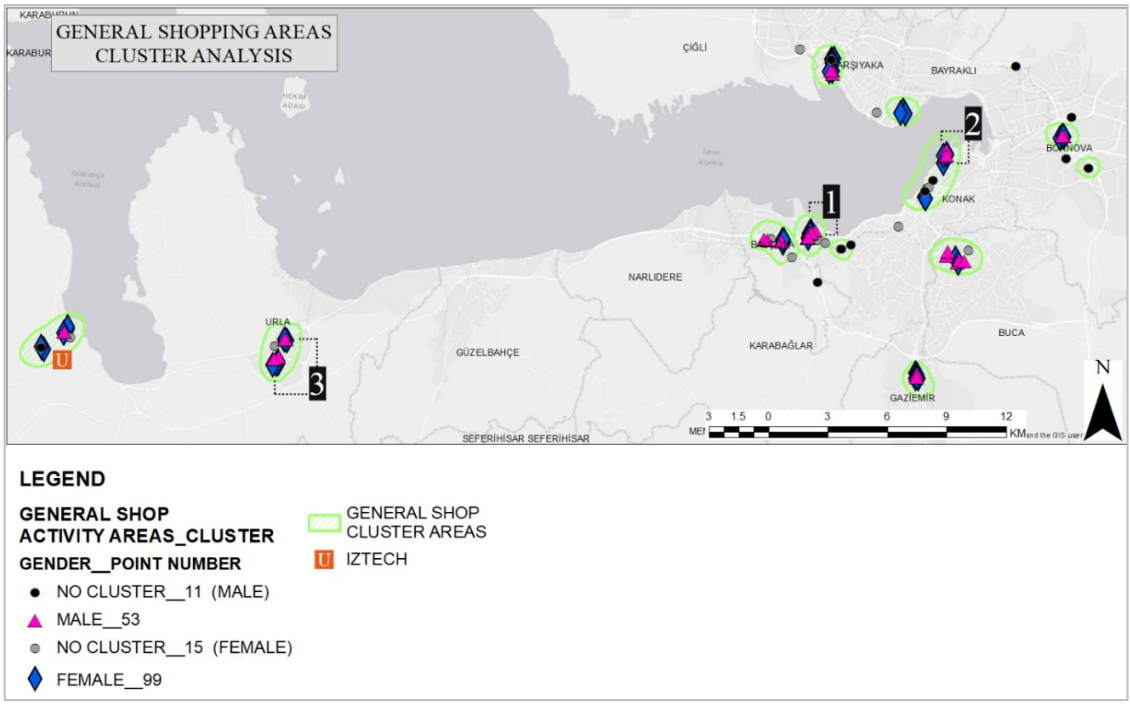



Figure 32: General Shopping Areas Using Students (Cluster Analysis).

Figure 32 shows the cluster analysis of general shopping areas by gender. Accordingly, male students marked 64 places, and 11 of them (%17.18) did not form a cluster. Male students formed 12 clusters, 2 in Konak and 2 in Karabağlar. Female students marked 114 places, and 15 of them (%13.15) did not create a cluster. Female students have formed 14 clusters, 6 in Konak and 3 in Urla.

Accordingly, there are clusters on shopping streets or shopping malls. These are Optimum Shopping Mall in Gaziemir, Şirinyer Park, the continuation of the spring trade axis in Buca, shopping malls in Balçova, Kıbrıs Şehitleri street in Alsancak, Forum in Bornova, Karşıyaka bazaar and Hilltown and Mavişehir shopping mall in Karşıyaka, Urla center and bamboo mall. In Urla, in the center of Gülbahçe, in the university area (Figure 33).

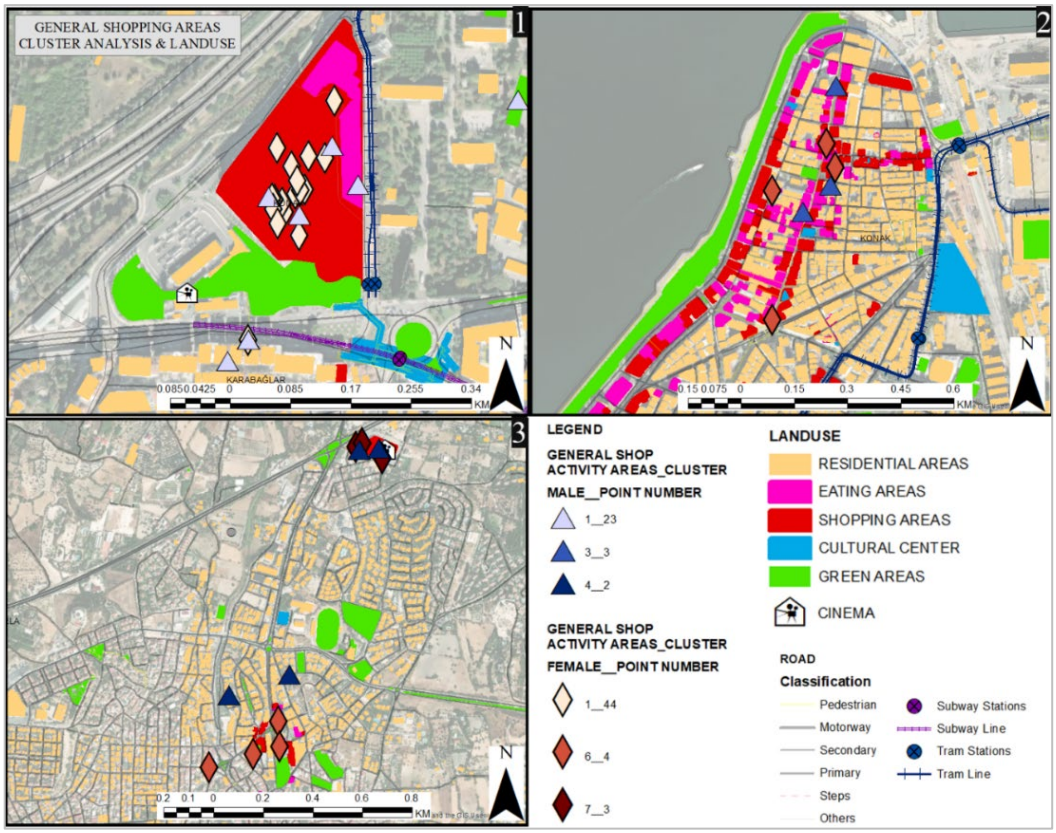



Figure 33: General Shopping Areas Using Students (1-2 Konak and 3-Urla Center Region Landuse).

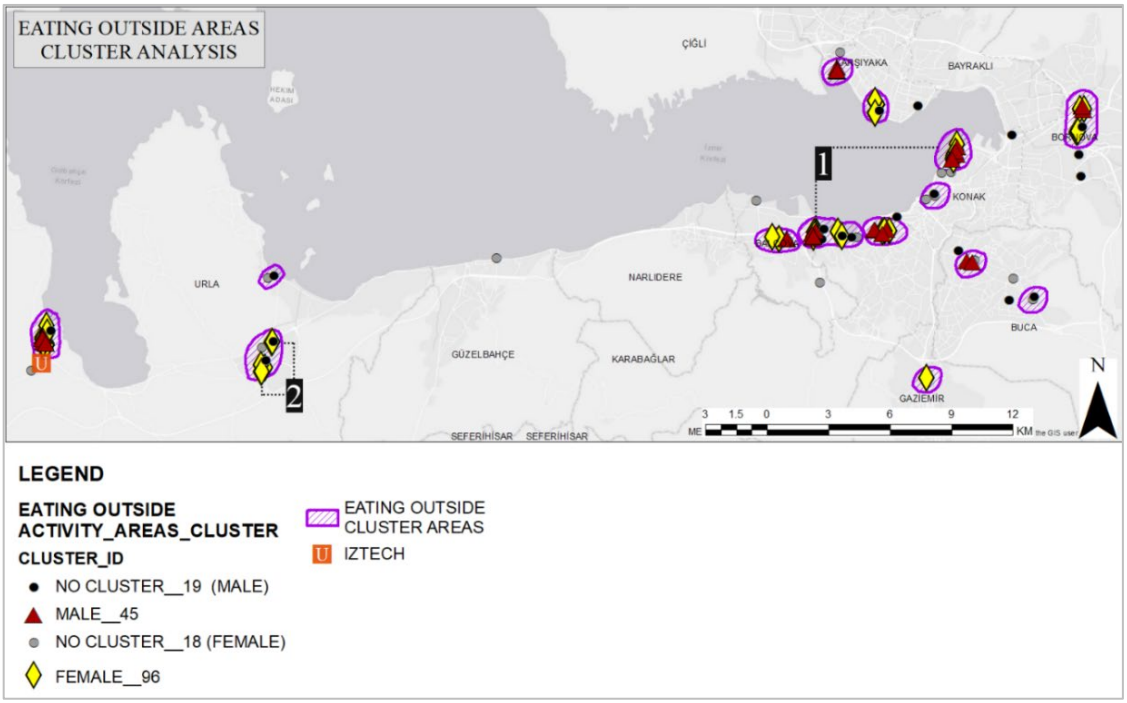



Figure 34: Eating Outside Areas Using Students (Cluster Analysis).

Figure 34 shows the cluster analysis of outdoor eating areas by gender. Accordingly, male students marked 64 places, and 19 of them (%29.68) did not form a cluster. Male students formed 8 clusters, 2 in Konak and 2 in Karabağlar. Female students marked 114 places, and 18 of them (%15.78) did not create a cluster. Female students have formed 13 clusters, 4 in Konak and 3 in Urla, Kıbrıs Şehitleri street in Alsancak region, shopping malls in Balçova region, Optimum Mall in Gaziemir. In Buca, only male students form a cluster, Şirinyer Park. In the Karşıyaka region, only female students form clusters in Karşıyaka market, and only male students form clusters in Hilltown and Mavişehir shopping mall. In the Urla center, only female students form a cluster (Figure 35).

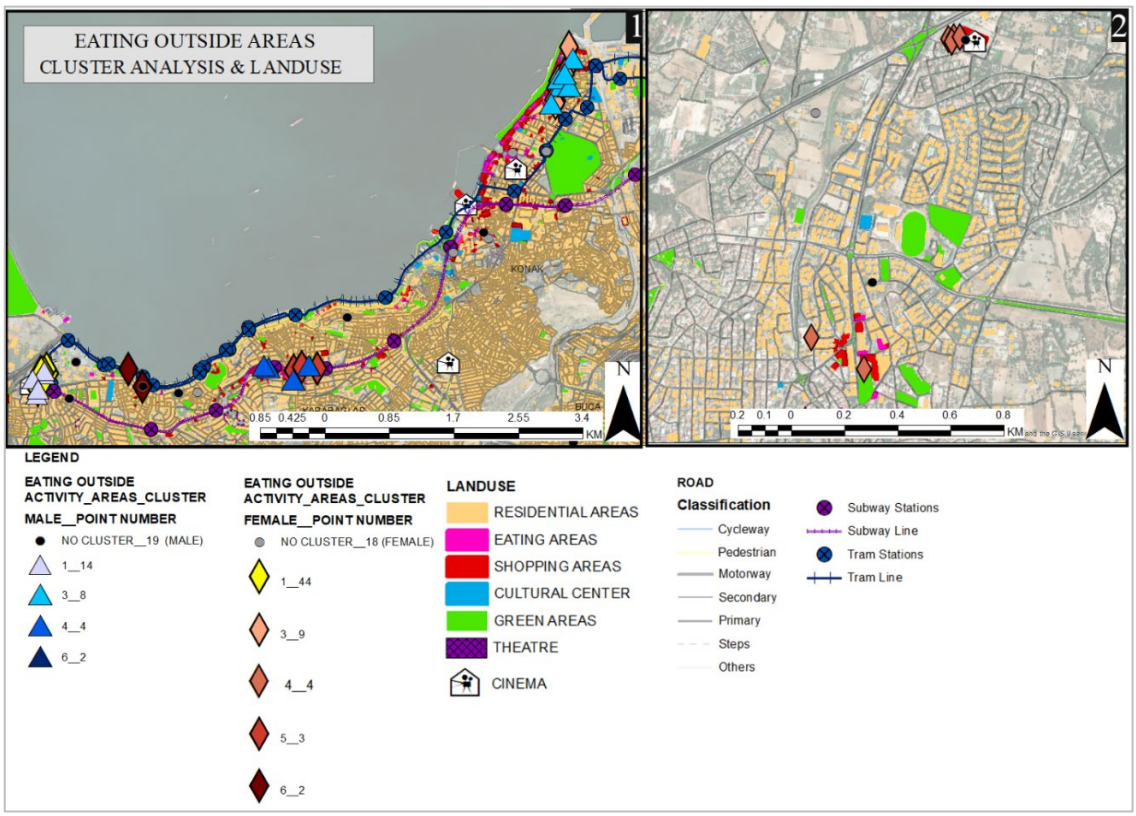



Figure 35: Eating Outside Areas Using Students (1- Konak and 2-Urla Center Region Landuse).

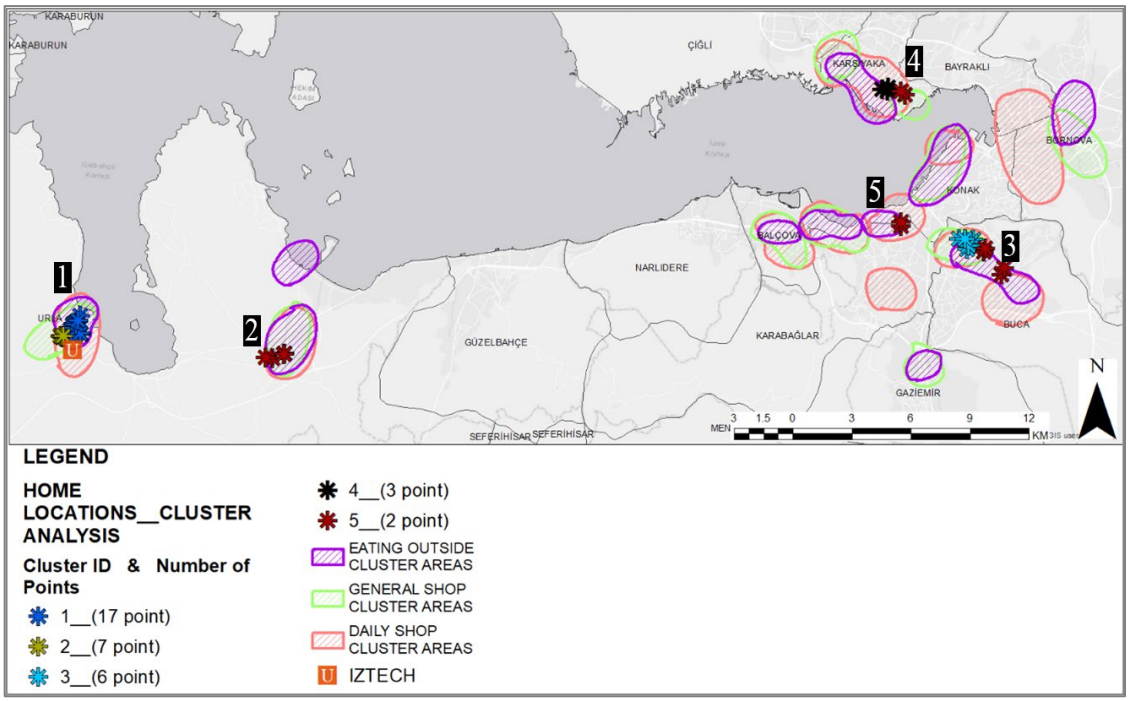



Figure 36: Comparison of Shopping (daily and general) and Eating Areas.

Figure 36 shows that comparing the shopping (daily and general) and eating areas, which we associate with commercial areas, with home cluster analysis, we see that these activities generally do not intersect with home locations. However, it was formed in the:

(1) University Region,

(2) Urla Center Region,

(3) Buca Region,

(4) Karşıyaka Region,

(5) Konak Region.

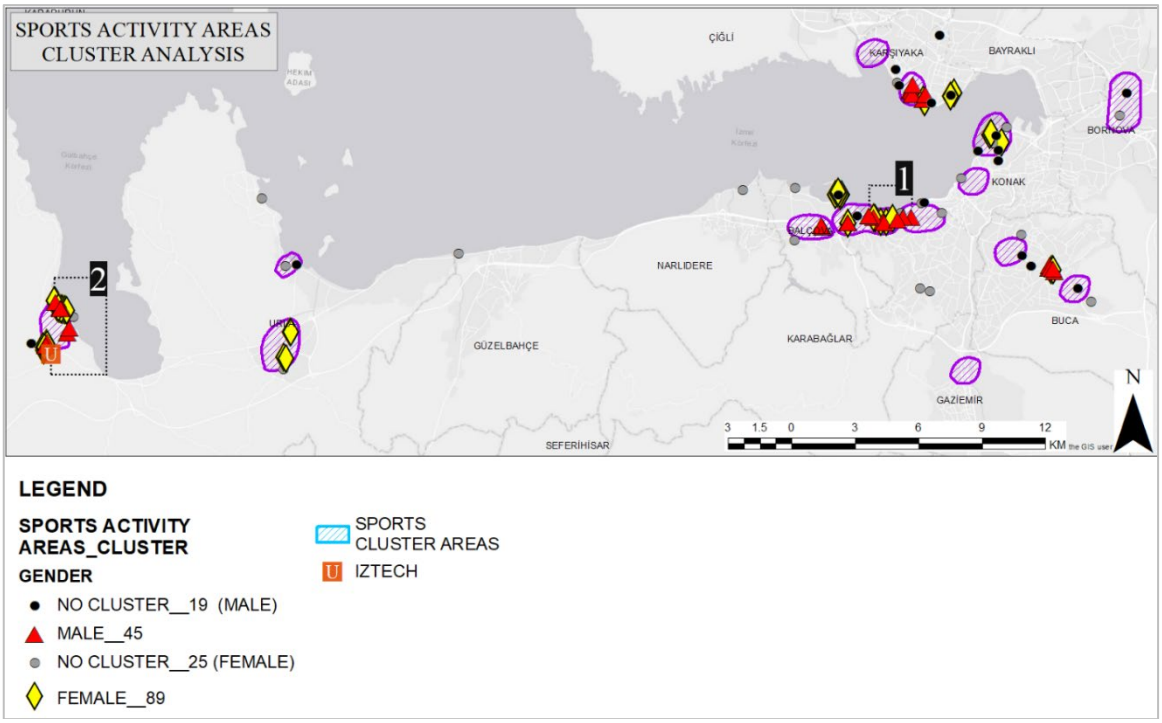



Figure 37: Sport Activity Areas Using Students (Cluster Analysis).

Figure 37 shows the cluster analysis of sports activity areas by gender. Accordingly, male students marked 64 places, and 19 (29.68%) do not form a cluster. Male students formed 11 clusters, 3 in Konak and 3 in Urla. Female students marked 114 places, and 25 (21.92%) did not create a cluster. Female students have formed 13 clusters, 4 in Gülbahçe and 3 in Konak.

There are only women in the Urla center and Alsancak region. The most used lines are the Konak-Karabağlar line and Gülbahçe. In the general cluster analysis without gender difference, a cluster was formed in Bornova, but it seems it did not form according to gender difference (Figure 38).

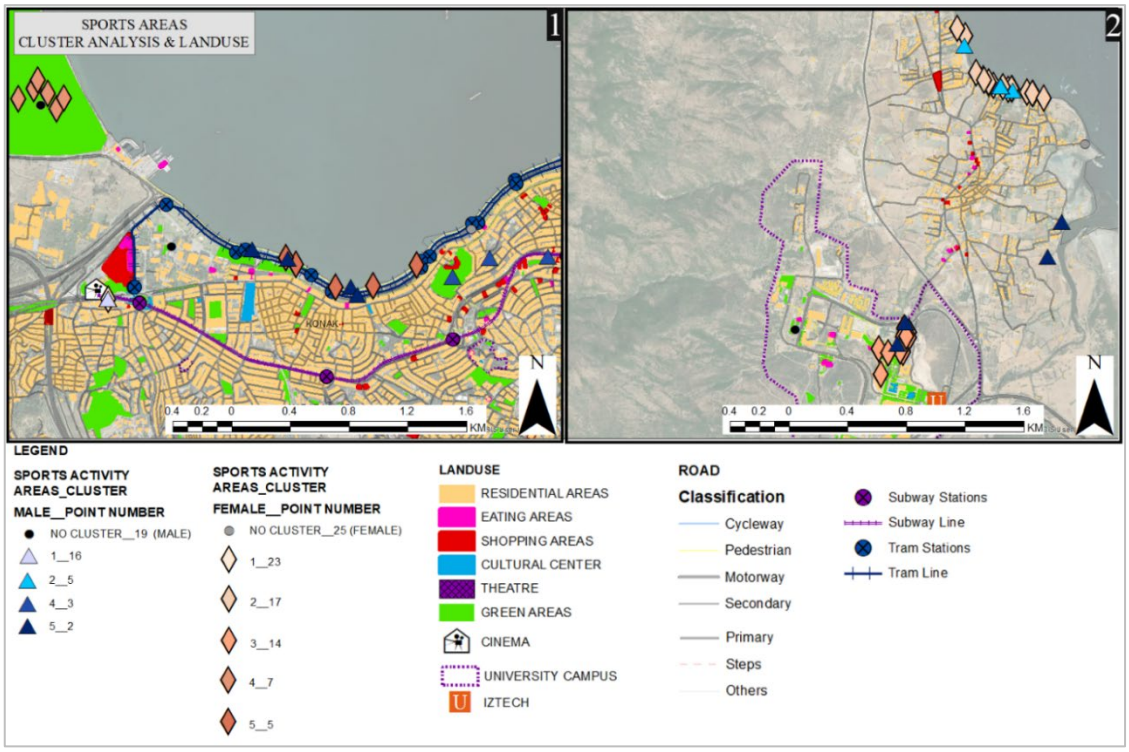



Figure 38: Sport Activity Areas Using Student (1-University Region and 2- Konak Landuse).

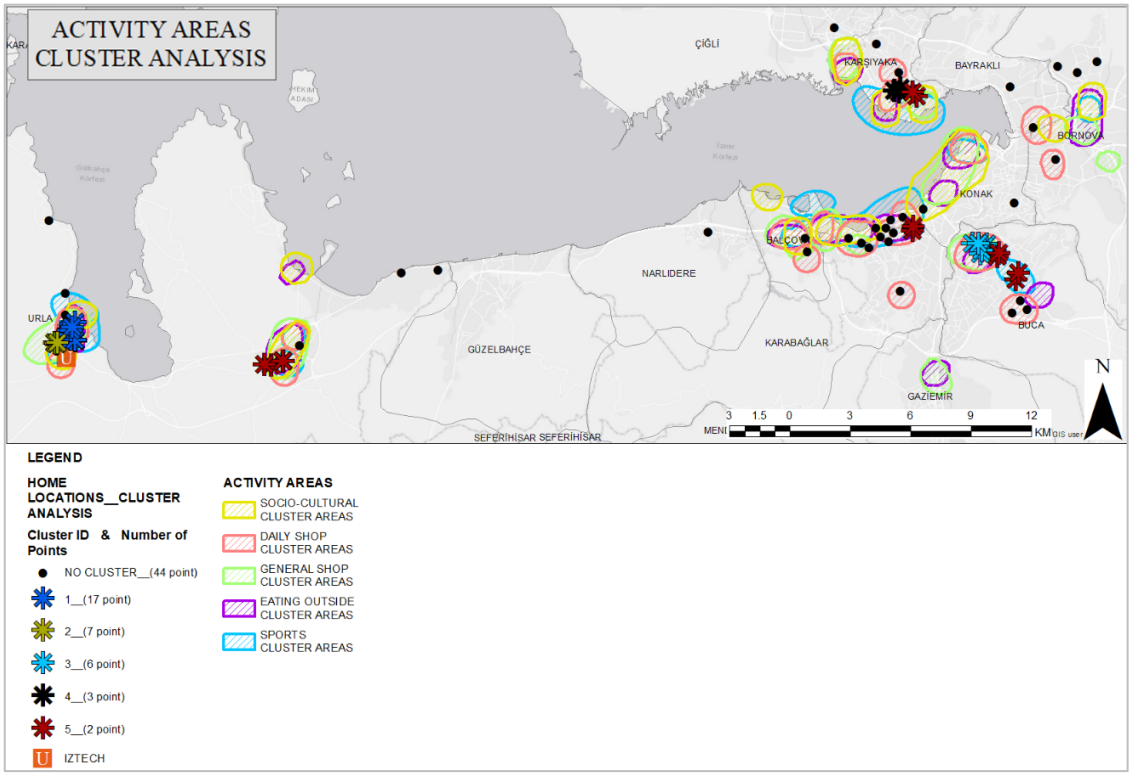



Figure 39: Summary of Activity Areas Using Students (Cluster Analysis).

Figure 39 shows a summary of all activity areas. Here, we also see home location clusters. Accordingly, according to the regions shown in Chapter 3 (Figure 26), house positions and activation areas do not intersect in six out of nine regions.

Still, differences are observed in some regions. Especially in the university region, all activities are concentrated there, while in the Urla region, socio-cultural activities and eating out activities are seen by the beach. Although there are no houses in the Bornova and Karşıyaka regions and some of the Alsancak region, activities are concentrated there. Shopping malls are concentrated in the concentrated part of Karşıyaka. Bornova region, called Küçükpark, is a center of attraction for students. Alsancak is the center of attraction for the whole city.

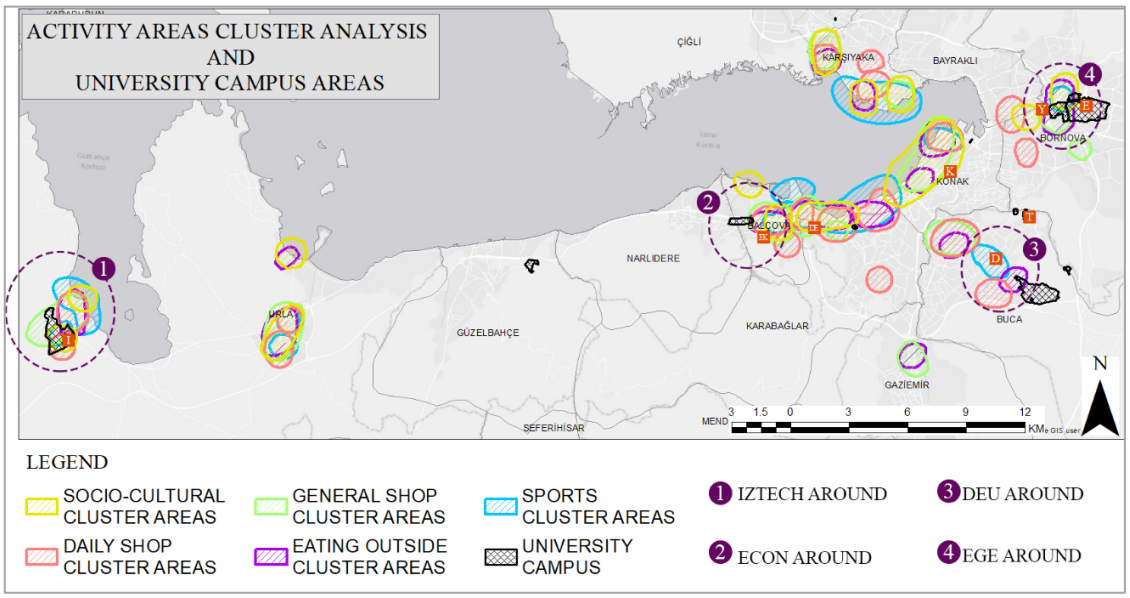



Figure 40: Activity Areas Cluster Analysis and University Campus Areas.

Figure 40 shows the cluster analysis of university activity areas and campus areas. Here, four university areas and activity areas intersect. This shows us that students prefer university campuses and campus surroundings in the city for their activities. These spaces (university campuses and campus surroundings) emerge as interface spaces in the city.

### 5.2.2. Reasons for Choosing Activity Areas

We looked at why students prefer activity areas. This will give us more detailed information about the factors influencing urban experiences. We showed these reasons for preference and their distribution by gender in Table 9.

Table 9: Reason for Choosing Activity Areas.

| | Reason for Choosing Activity Areas | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|---|
| Socio-cultural Activity Areas | Safe | 22 | 50 | 42 | 52 | 64 | 51.2 |
| | Close to Home | 14 | 32 | 30 | 37 | 44 | 35.2 |
| | No Response | 8 | 18 | 9 | 11 | 17 | 13.6 |
| | Total | 44 | 100 | 81 | 100 | 125 | 100 |
| Daily Shopping Areas | Affordable | 0 | 0 | 16 | 13.56 | 16 | 9.2 |
| | Close to Home | 44 | 78.57 | 94 | 79.66 | 138 | 79.31 |
| | No Response | 12 | 21.43 | 8 | 6.78 | 20 | 11.49 |
| | Total | 56 | 100 | 118 | 100 | 174 | 100 |
| General Shopping Areas | No Alternative | 27 | 39.13 | 45 | 36.59 | 72 | 37.5 |
| | Close to Home | 28 | 40.58 | 46 | 37.4 | 74 | 38.54 |
| | No Response | 14 | 20.29 | 32 | 26.02 | 46 | 23.96 |
| | Total | 69 | 100 | 123 | 100 | 192 | 100 |
| Sport Areas | Safe | 28 | 35.9 | 42 | 31.34 | 70 | 33.02 |
| | Close to Home | 34 | 43.59 | 76 | 56.72 | 110 | 51.89 |
| | No Response | 16 | 20.51 | 16 | 11.94 | 32 | 15.09 |
| | Total | 78 | 100 | 134 | 100 | 212 | 100 |
| Eating Outside Areas | Safe | 0 | 0 | 0 | 0 | 0 | 0 |
| | Close to Home | 40 | 85.11 | 58 | 75.32 | 98 | 79.03 |
| | No Response | 7 | 14.89 | 19 | 24.68 | 26 | 20.97 |
| | Total | 47 | 100 | 77 | 100 | 124 | 100 |

Socio-cultural activity areas were selected as safe (51.2%), with no gender difference. Daily shopping (79.31%) and general shopping (38.54%) were chosen as areas close to home, with no gender difference. Sports areas (51.89%) were selected as close to home, with male students at 43.59% and female students at 56.72%, with a difference of 13%. They are eating outside areas at 79.03%, male students 85.11%, and female students 75.32. There is a 9.8% difference between genders. There is a gender difference in sports and eating outside areas.

### 5.2.3. Accessibility of Activity Areas

In this section, the accessibility of students' activity areas was examined. For this, two basic things were taken into consideration. The first was which means transportation they used to go to these areas and whether they could reach the activity areas at 1200 meters. For the first one, the mode of transport was examined, and for the second one, a 400-800-1200-meter network analysis was performed for the clusters obtained from the cluster analysis of the students' home locations.

Table 10: Mode of Transportation for Choosing Activity Areas.

| | **Mode of Transportation** | **Male** | **Male (%)** | **Female** | **Female (%)** | **Total** | **Total (%)** |
|---|---|---|---|---|---|---|---|
| Socio-cultural Activity Areas | Personal Car | 12 | 14 | 16 | 12 | 28 | 13 |
| | Bus-Metro (Public Transport) | 44 | 53 | 90 | 65 | 134 | 60 |
| | Walking | 22 | 27 | 28 | 20 | 50 | 23 |
| | No Response | 5 | 6 | 5 | 4 | 10 | 5 |
| | Total | 83 | 100 | 139 | 100 | 222 | 100 |
| Daily Shopping Areas | Personal Car | 10 | 12.5 | 12 | 8.33 | 22 | 9.82 |
| | Bus-Metro (Public Transport) | 24 | 30 | 34 | 23.61 | 58 | 25.89 |
| | Walking | 42 | 52.5 | 90 | 62.5 | 132 | 58.93 |
| | No Response | 4 | 5 | 8 | 5.56 | 12 | 5.36 |
| | Total | 80 | 100 | 144 | 100 | 224 | 100 |
| General Shopping Areas | Personal Car | 20 | 20.41 | 20 | 13.89 | 40 | 16.53 |
| | Bus-Metro (Public Transport) | 50 | 51.02 | 76 | 52.78 | 126 | 52.07 |
| | Walking | 24 | 24.49 | 38 | 26.39 | 62 | 25.62 |
| | No Response | 4 | 4.08 | 10 | 6.94 | 14 | 5.79 |
| | Total | 98 | 100 | 144 | 100 | 242 | 100 |
| Eating Outside Areas | Personal Car | 16 | 17.39 | 24 | 17.65 | 40 | 17.54 |
| | Bus-Metro (Public Transport) | 38 | 41.3 | 60 | 44.12 | 98 | 42.98 |
| | Walking | 38 | 41.3 | 52 | 38.24 | 90 | 39.47 |
| | No Response | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | 92 | 100 | 136 | 100 | 228 | 100 |
| Sport Areas | Personal Car | 6 | 7.69 | 8 | 5.48 | 14 | 6.25 |
| | Bus-Metro (Public Transport) | 30 | 38.46 | 48 | 32.88 | 78 | 34.82 |
| | Walking | 36 | 46.15 | 76 | 52.05 | 112 | 50 |
| | No Response | 6 | 7.69 | 14 | 9.59 | 20 | 8.93 |
| | Total | 78 | 100 | 146 | 100 | 224 | 100 |

Bus-Metro (Public Transport) is used for going to socio-cultural activity areas in total (60%), with male students at 53% and female students at 65%, a difference of 12%. Walking is used for going to daily shopping areas (58.93%), with male students 52.5% and male students 62.5%, a difference of 10%. Bus-Metro (Public Transport) is used for general shopping (52.07%), and there is no gender difference. Bus-Metro (Public Transport) is used for eating outside (42.98%), and there is no gender difference. Walking is used for going to sports areas (50%), and there is no gender difference. Bus-Metro (Public Transport) visits socio-cultural activity areas, general shopping, and eats outside. Walking is used for going to daily shopping and sports areas.

- **Home Location Network Analysis and Activity Areas**

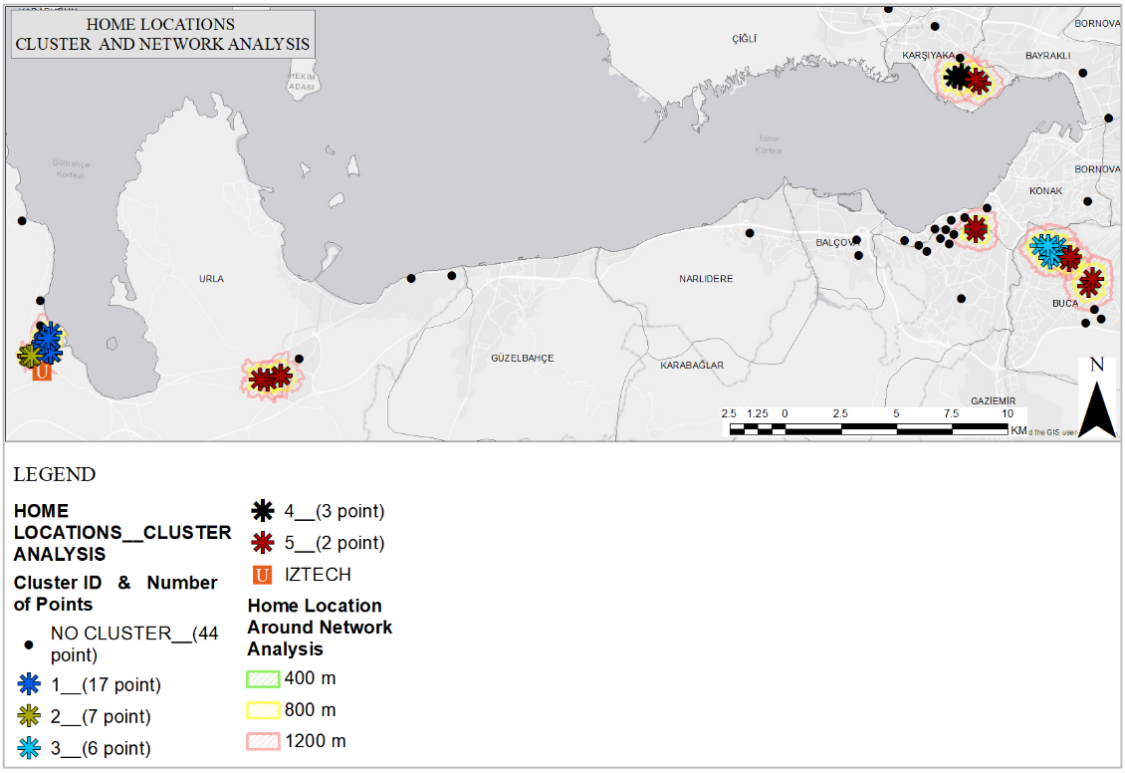



Figure 41: Network Analysis of Student's Home Location Cluster

Network analysis was performed to understand what kind of closeness there is in terms of distance between where students live and their activity areas. Here, firstly, cluster analysis of house locations was performed. Network analysis was carried out with the

clusters obtained here according to the walking distance of 400-800-1200 meters. Five regions were formed (Figure 41).

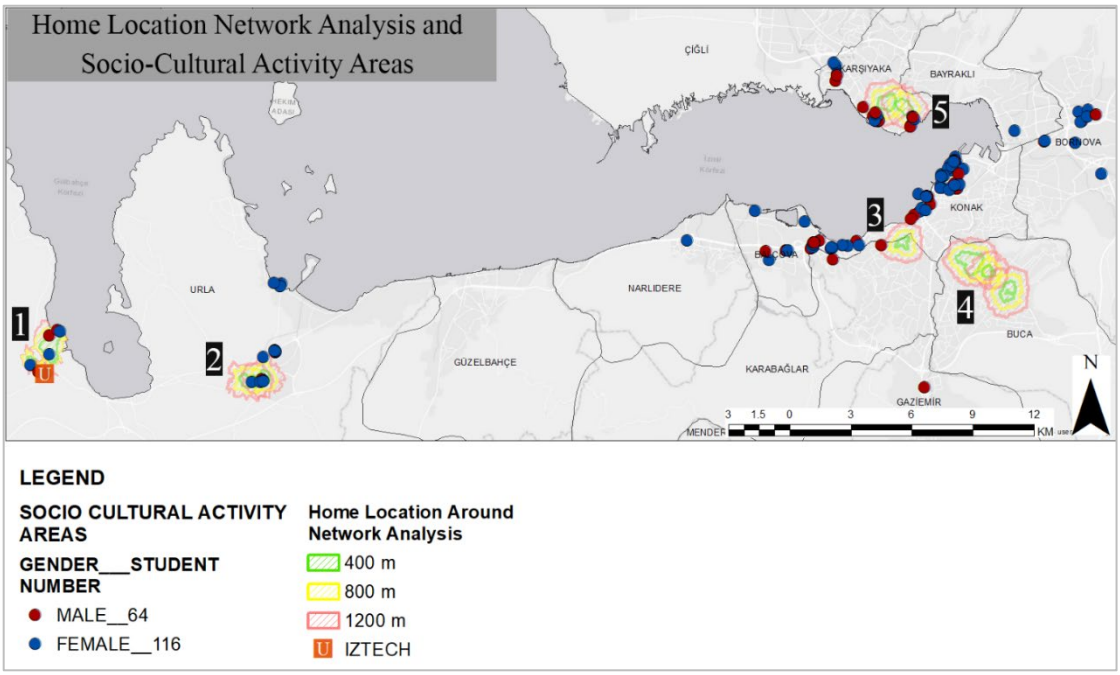



Figure 42: Home Location Network Analysis and Socio-Cultural Activity Areas.

First, the distance difference between home location network analysis and socio-cultural activity areas was examined (Figure 42). In these regions (Figure 43), only the University, Urla, and Karşıyaka regions are used for socio-cultural activities within a 400-800-1200-meter network. In addition, according to the distance analysis, male students travel an average distance of 8.07 km, while female students travel 18.25 km. There is a 10% difference between genders.

Table 11: Average Travel Distance and Mode of Transport for Socio-Cultural Activities

| | **Average Travel Distance (km)** | | |
|---|---|---|---|
| **Mode of Transportation** | **Male** | **Female** | **Total** |
| Personal Car | 1.38 | 2.10 | 3.48 |
| Bus-Metro (Public Transport) | 7.04 | 16.80 | 23.83 |
| Walking | 2.83 | 2.89 | 5.72 |

Additionally, when we evaluate the average distances taken for Socio-Cultural Activities and the mode of transportation by gender, we see that female students travel longer distances. We can say that they go to farther places by public transport (Table 11).

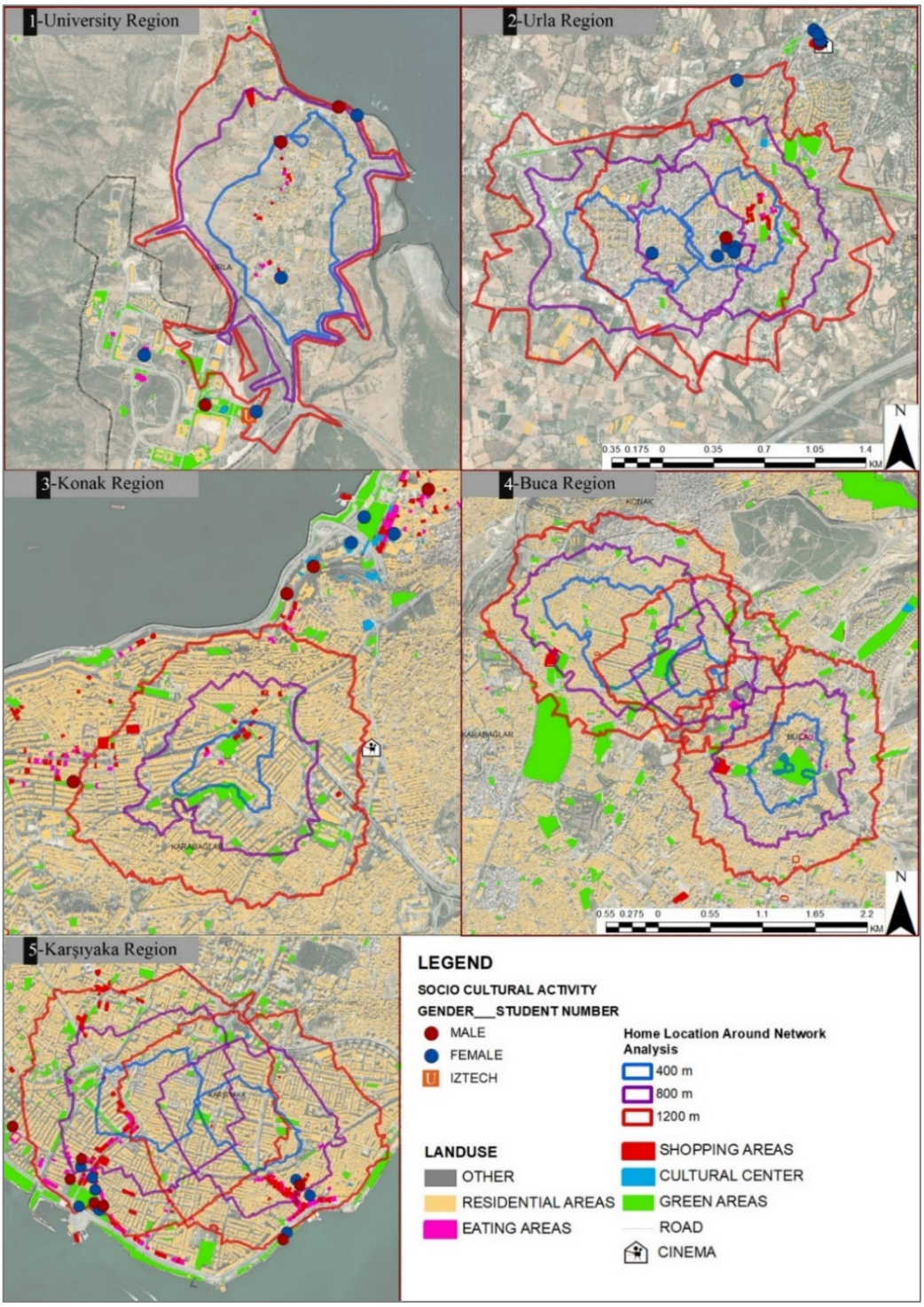



Figure 43: Home Location Network Analysis and Socio-Cultural Activity Areas (Regions)

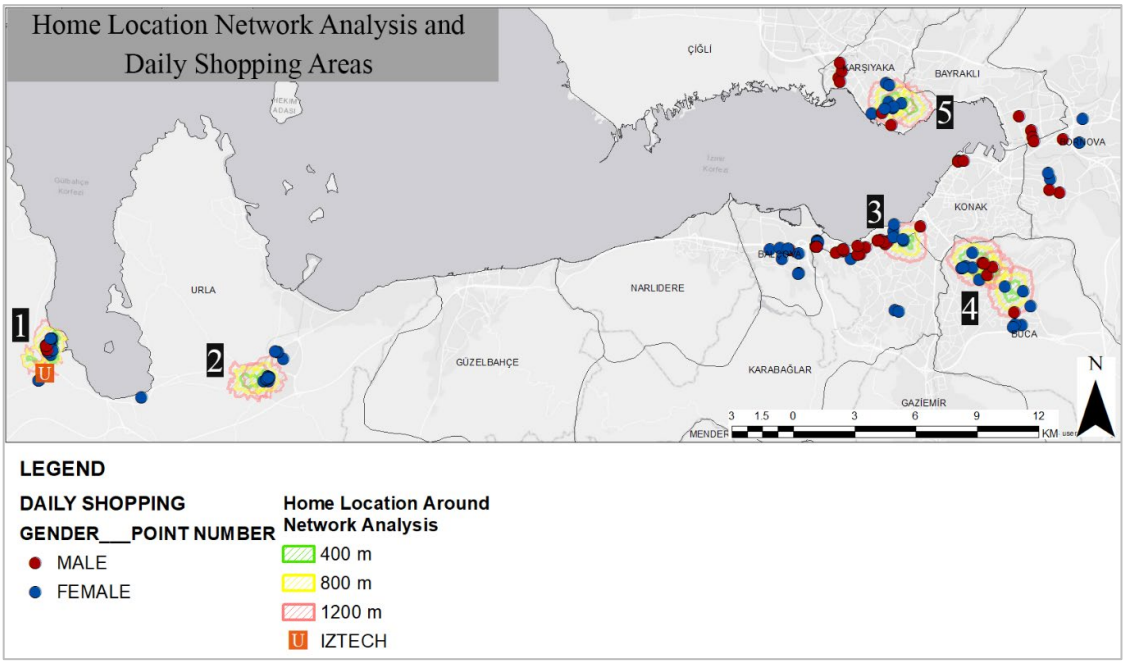



Figure 44: Home Location Network Analysis and Daily Shopping Areas.

Second, the distance difference between home location network analysis and daily shopping areas was examined (Figure 44). When we look at these regions (Figure 45), all regions are used for daily shopping activities within a 400-800-1200-meter network. In addition, according to the distance analysis, male students travel an average distance of 11.1 km, while female students travel 8.82 km. There is no difference between gender.

Table 12: Average Travel Distance and Mode of Transport for Daily Shopping.

| | **Average Travel Distance (km)** | | |
|---|---|---|---|
| **Mode of Transportation** | **Male** | **Female** | **Total** |
| Personal Car | 2.01 | 1.39 | 3.40 |
| Bus-Metro (Public Transport) | 5.06 | 3.57 | 8.64 |
| Walking | 4.34 | 5.31 | 9.65 |

They are evaluating the average distances taken for Daily Shopping Activities and the mode of transportation by gender. We can say that they go to daily shopping places on walking (Table 12).

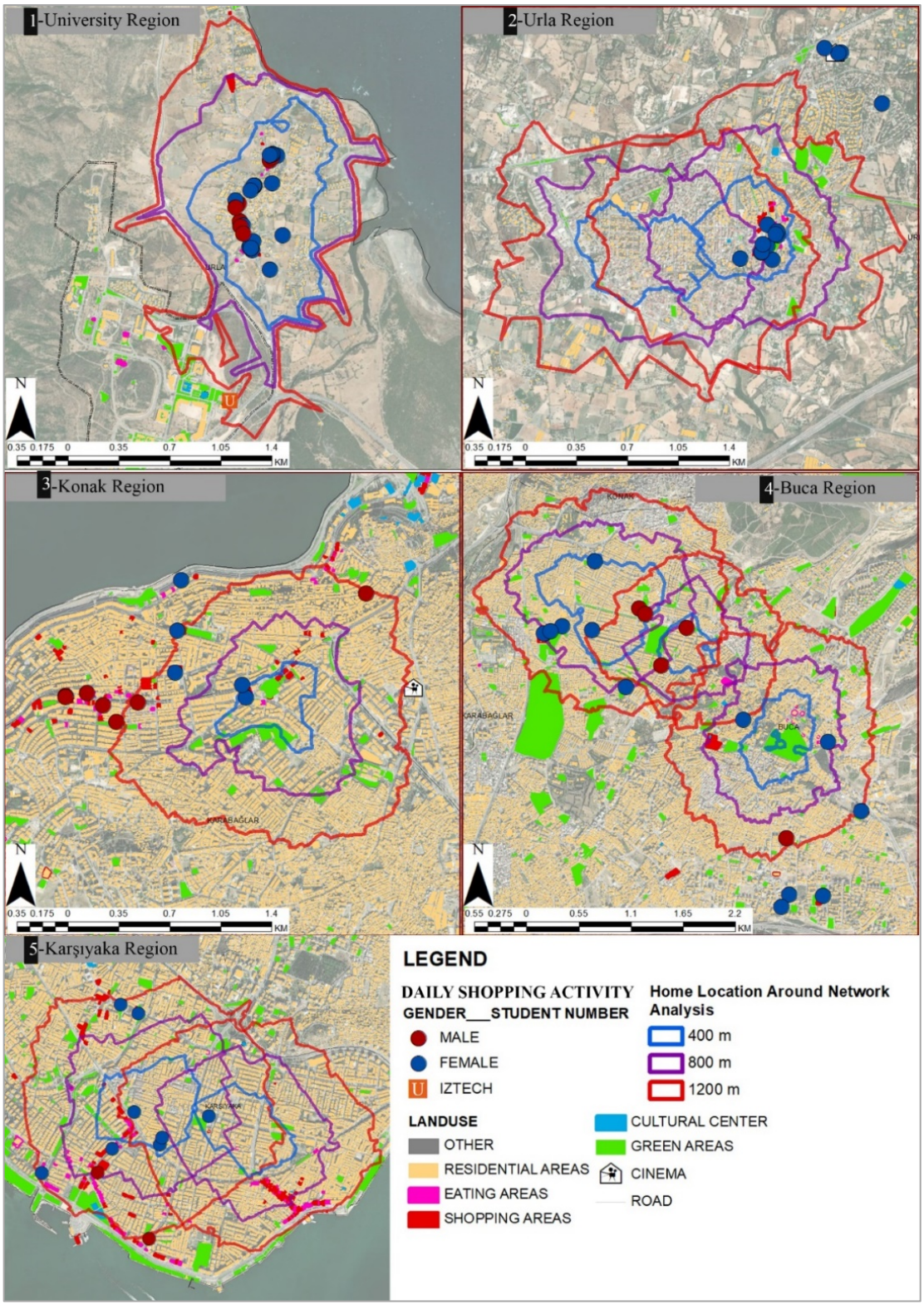



Figure 45: Home Location Network Analysis and Daily Shopping Areas (Regions).

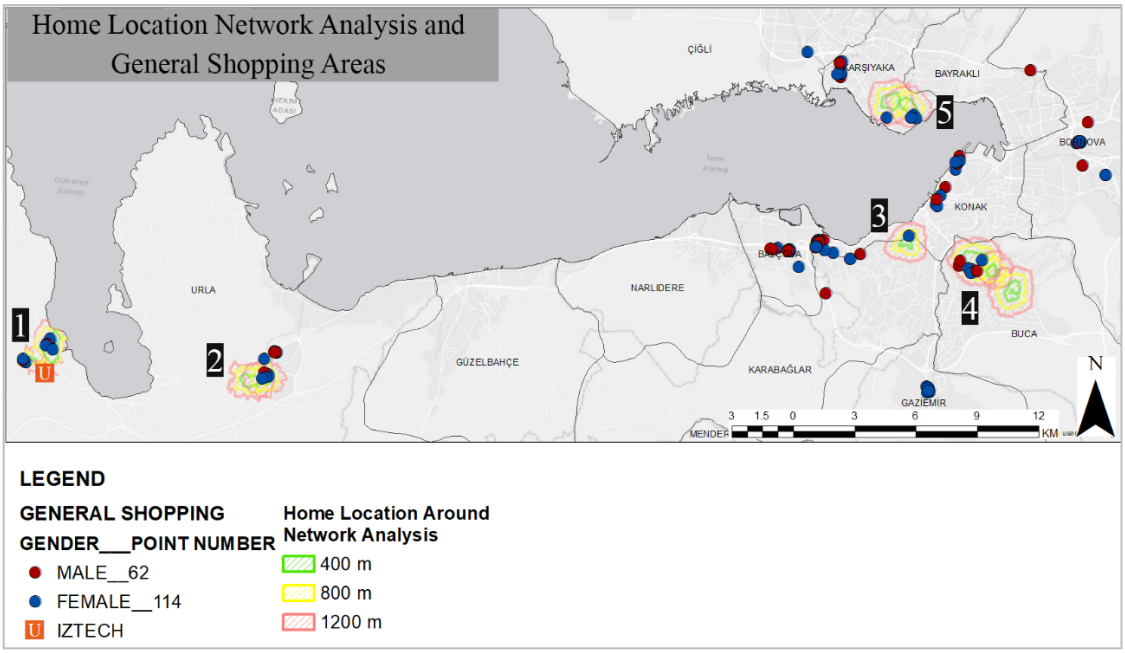



Figure 46: Home Location Network Analysis and General Shopping Areas.

Third, the distance difference between home location network analysis and general shopping areas was examined (Figure 46). In these regions (Figure 47), none are used for general shopping activities within a 400-800-1200-meter network.

Table 13: Average Travel Distance and Mode of Transport for General Shopping

| | **Average Travel Distance (km)** | | |
|---|---|---|---|
| **Mode of Transportation** | **Male** | **Female** | **Total** |
| Personal Car | 3.33 | 1.28 | 4.60 |
| Bus-Metro (Public Transport) | 7.96 | 8.68 | 16.65 |
| Walking | 6.41 | 4.71 | 11.11 |

Evaluating the average distance taken for general shopping and the mode of transportation by gender, we see that female students travel longer distances. We can say that they go to farther places by public transport (Table 13). When we compare daily shopping and general shopping in terms of the average travel distance, we see that while the average distance is 9.57 km for daily shopping, the average distance is 12.04 km for general shopping. This shows us that daily shopping is done close to home.

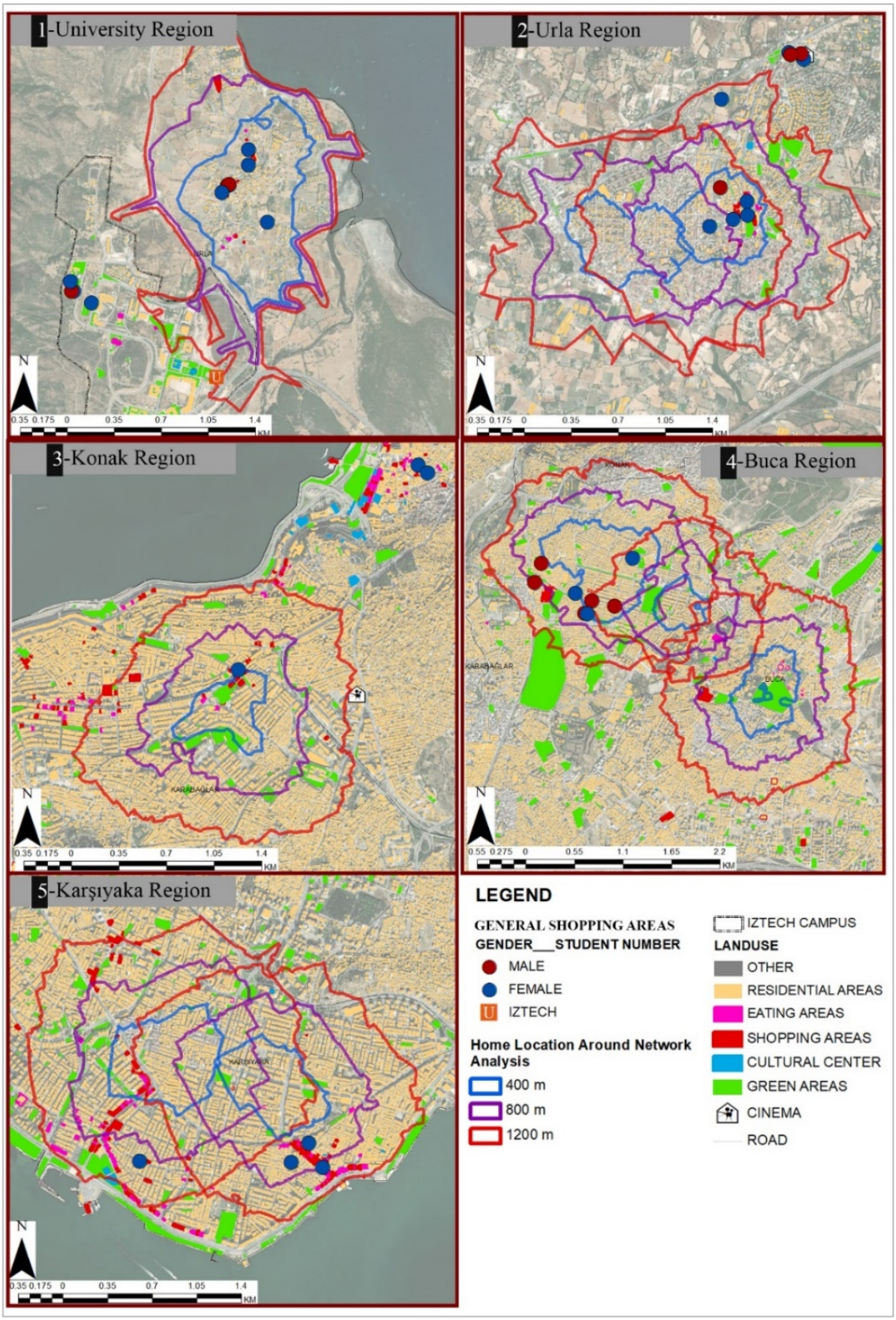



Figure 47: Home Location Network Analysis and General Shopping Areas (Regions).

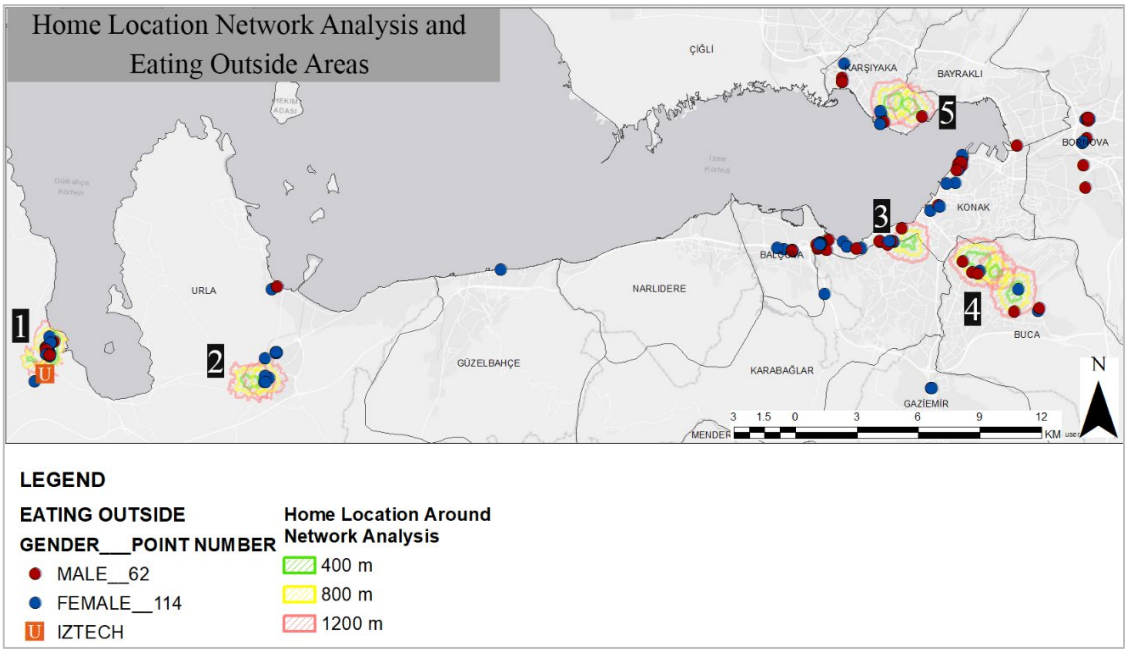



Figure 48: Home Location Network Analysis and Eating Outside Areas.

Fourth, the distance difference between home location network analysis and eating outside areas was examined (Figure 48). When we look at these regions (Figure 49), all regions are not used for eating outside activities within a 400-800-1200-meter network. In addition, according to the distance analysis, male students travel an average distance of 6.47 km, while female students travel 10.78 km. There is no difference between gender.

Table 14: Average Travel Distance and Mode of Transport for Eating Outside

| | **Average Travel Distance (km)** | | |
|---|---|---|---|
| **Mode of Transportation** | **Male** | **Female** | **Total** |
| Personal Car | 1.43 | 0.22 | 1.65 |
| Bus-Metro (Public Transport) | 2.99 | 4.06 | 7.05 |
| Walking | 4.44 | 5.90 | 10.33 |

They are evaluating the average distances taken for eating outside and the mode of transportation by gender. We can say that they go to eat outside places on foot (Table 14).

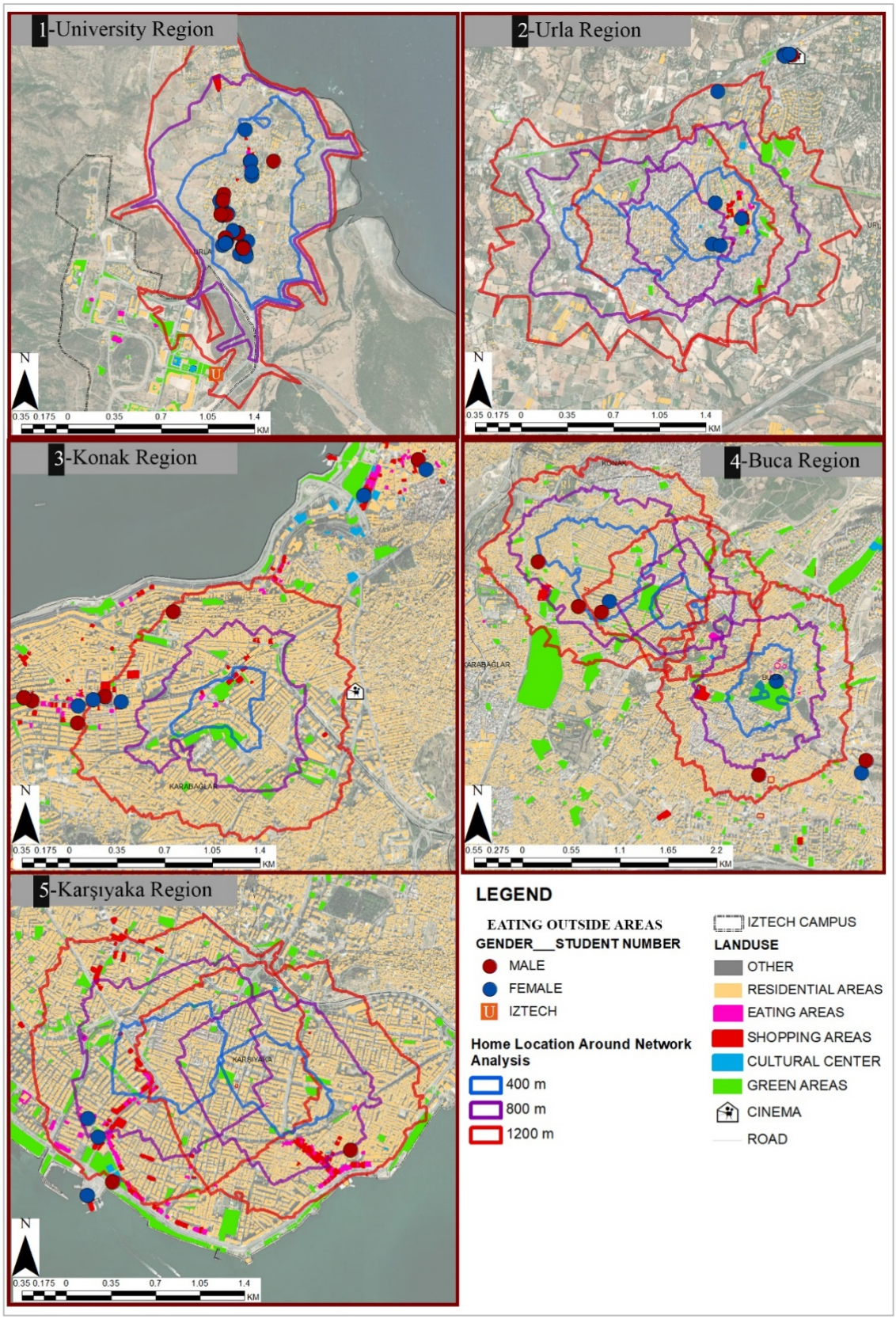



Figure 49: Home Location Network Analysis and Eating Outside Areas (Regions).

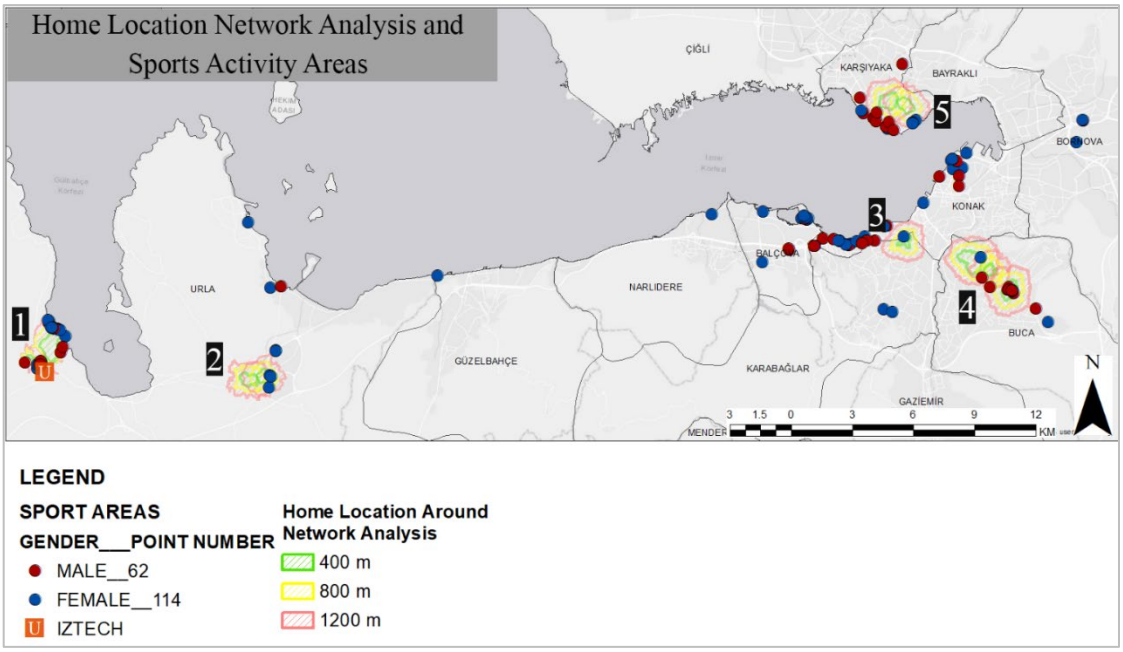



Figure 50: Home Location Network Analysis and Sports Activity Areas.

Fifth, the distance difference between home location network analysis and sports activity areas was examined (Figure 50). When we look at these regions (Figure 51), all regions are used for sports activities within a 400-800-1200-meter network. In addition, according to the distance analysis, male students travel an average distance of 9.82 km, while female students travel 10.19 km. There is no difference between gender.

Table 15: Average Travel Distance and Mode of Transport for Sports Activity.

| | **Average Travel Distance (km)** | | |
|---|---|---|---|
| **Mode of Transportation** | **Male** | **Female** | **Total** |
| Personal Car | 0.73 | 3.80 | 4.53 |
| Bus-Metro (Public Transport) | 5.59 | 6.51 | 12.10 |
| Walking | 4.50 | 5.67 | 10.18 |

They are evaluating the average distances taken for eating outside and the mode of transportation by gender. We can say that they go to sports activity places by public transport (Table 15).

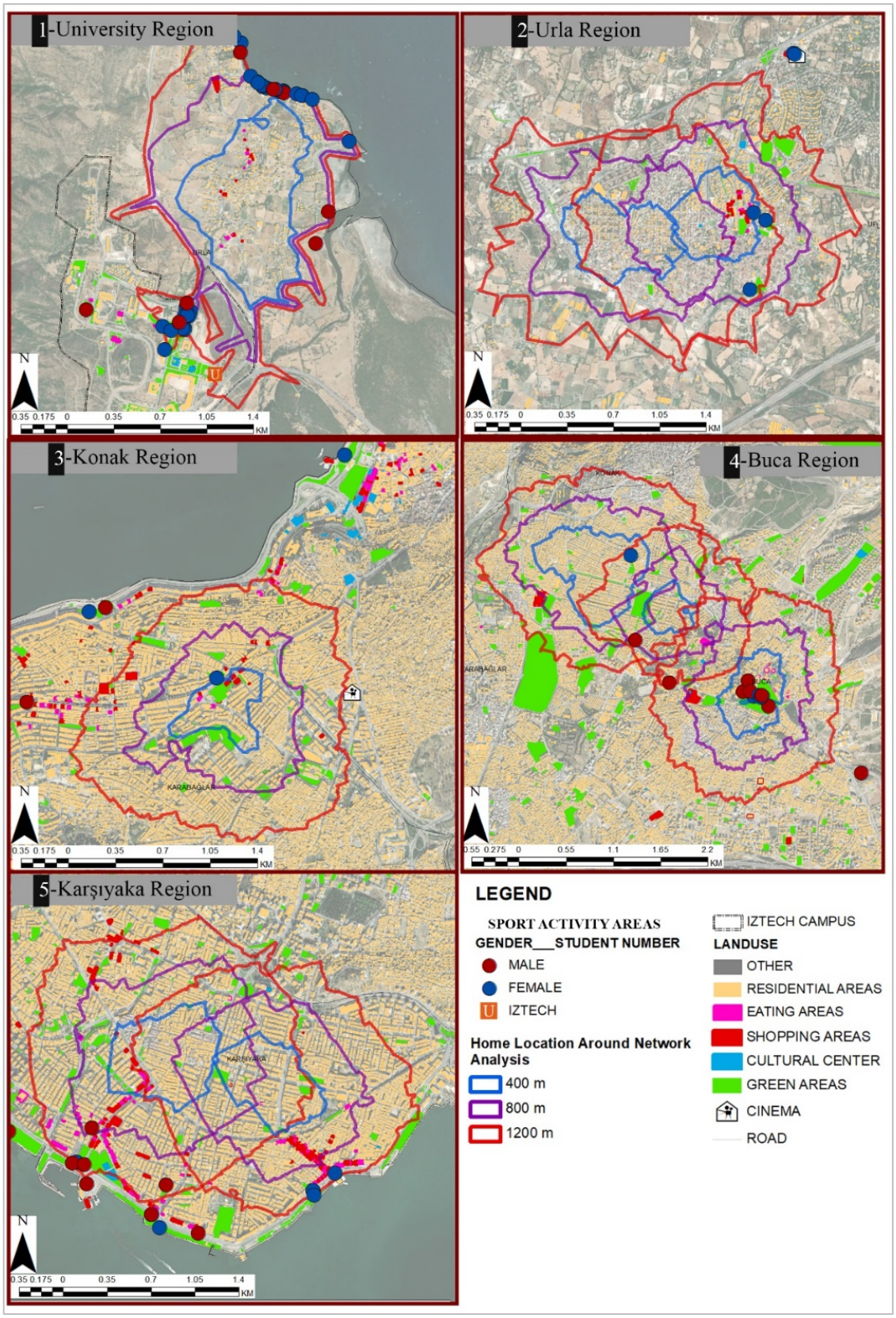



Figure 51: Home Location Network Analysis and Sport Areas (Regions).

- **Home Location Network Analysis and Activity Areas (Individual Examples)**

The student's house was taken as the center for network analysis, and the walking distances of 400-800-1200 meters were taken as the basis for the network around it. The locations for network analysis were not chosen randomly. For this purpose, three basic indicators were selected. These;

1. Gender (Male-Female)
2. Income (750x4, that is, the average income of students according to the results)
3. Car ownership (Students who own a car)

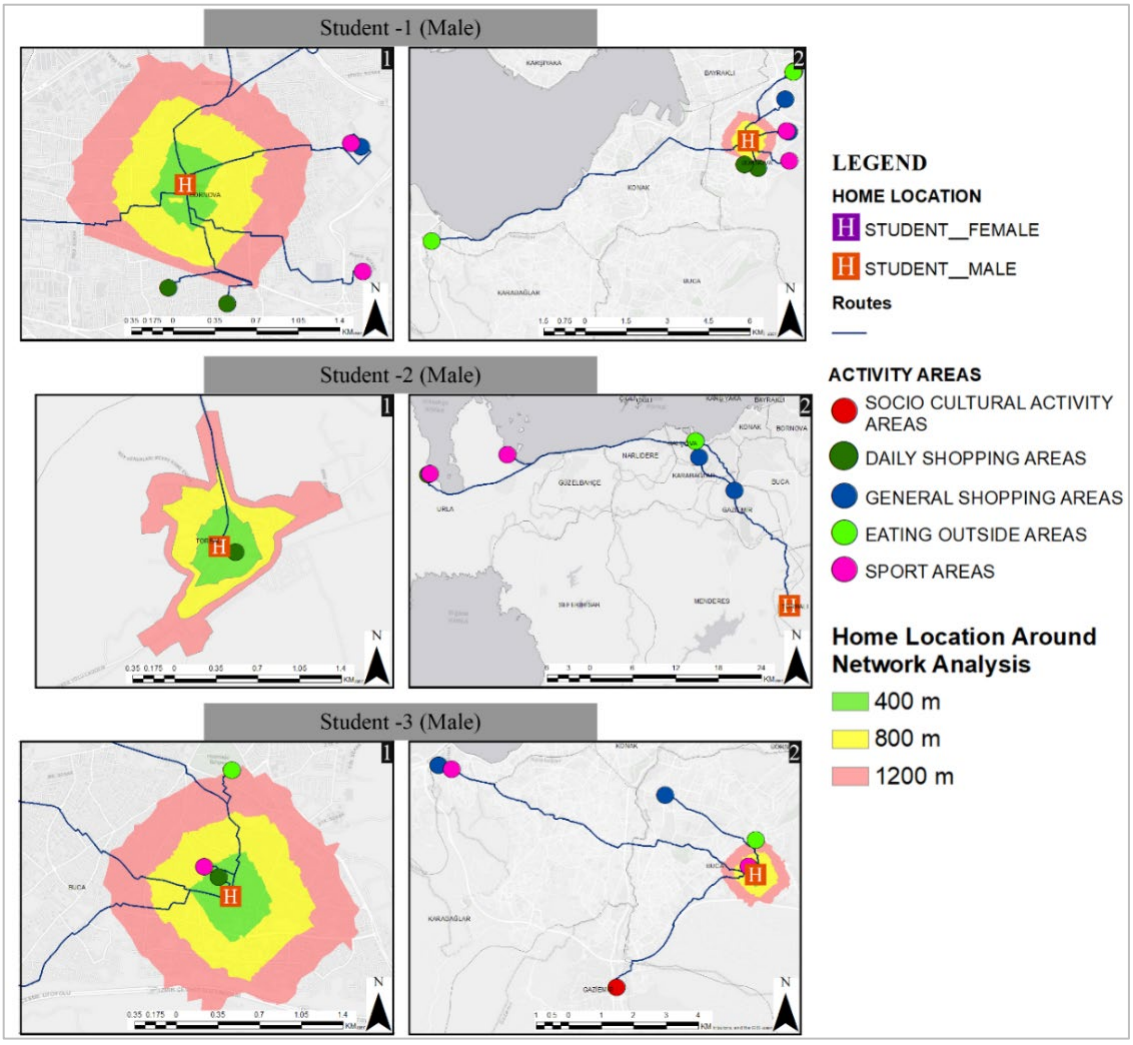



Figure 52: Home Location Network Analysis and Activity Areas (Individual Examples_Male Students).

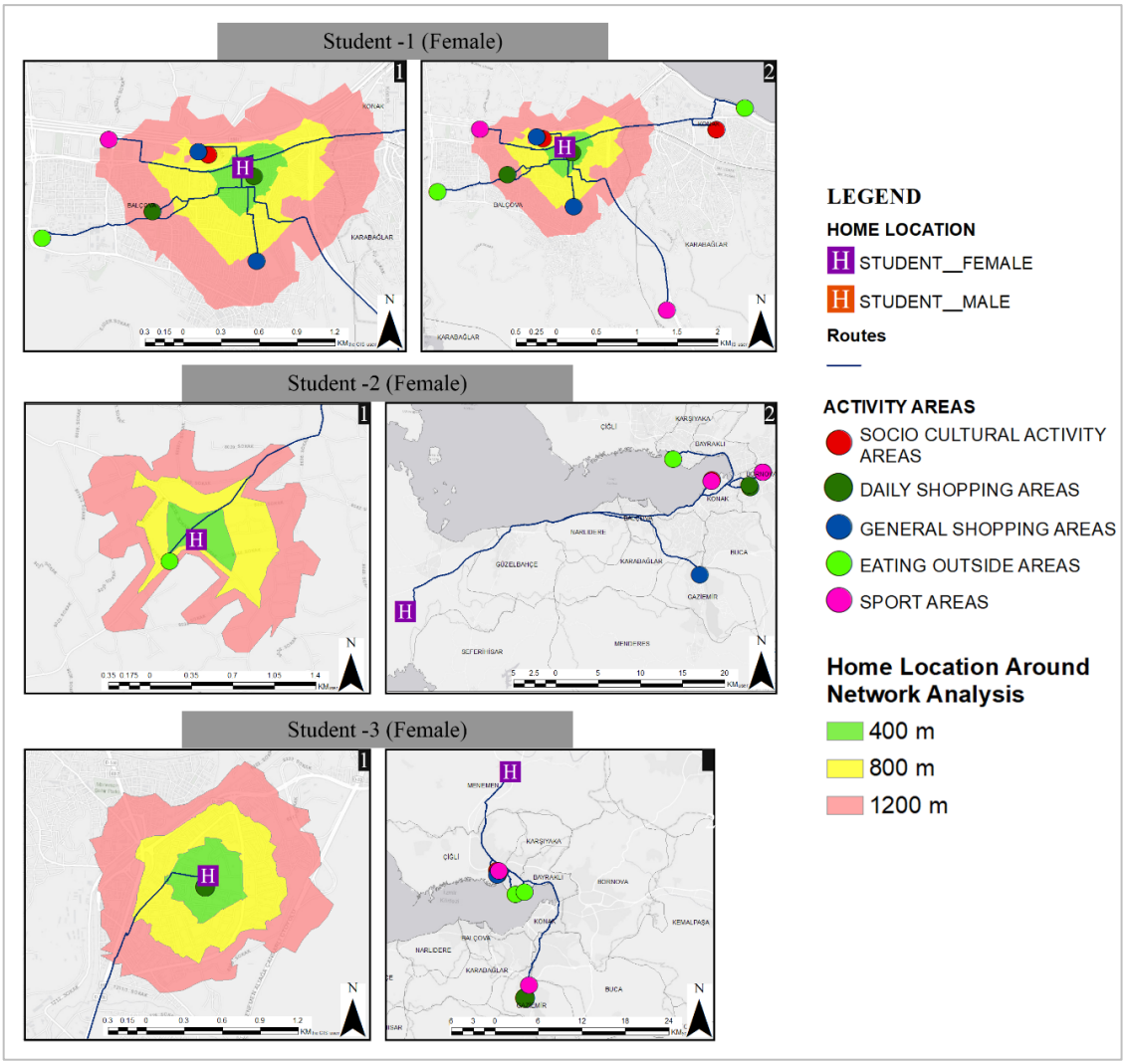



Figure 53: Home Location Network Analysis and Activity Areas (Individual Examples_Female Students).

We compared six students (three female and three male students) in terms of the distribution of activity area usage around the 400-800-1200 meter home network for female and male students. All students, except one student, do their socio-cultural activities (female student) and general shopping (female student) outside this area. On the other hand, all students shop in this area daily. We can say that eating out (1 male and one female student) and sports activities (1 male and one female student) have a more homogeneous usage (Figure 52 – Figure 53).

Table 16: Distance Between Home and Activity Areas.

| | | | Activity Areas Proximity (Walking Distance) | | | | |
|---|---|---|---|---|---|---|---|
| **Gender** | **District** | **Student ID** | **Socio-cultural Activity** | **Daily Shopping** | **General Shopping** | **Sport Activity** | **Eating Outside** |
| Male | BORNOVA | S_M-1 | 3.6 | 1.5 | 17.5 | 20.5 | 17.5 |
| | | | 0.0 | 1.9 | 38.1 | 0.0 | 21.3 |
| | TORBALI | S_M-2 | 0.0 | 0.2 | 9.3 | 0.6 | 0.6 |
| | | | 0.0 | 72.1 | 3.8 | 0.0 | 4.3 |
| | BUCA | S_M-3 | 6.5 | 0.3 | 0.0 | 5.9 | 0.0 |
| | | | 0.0 | 11.5 | 30.2 | 0.0 | 31.6 |
| Female | BALÇOVA | S_F-1 | 2.1 | 0.2 | 0.8 | 0.6 | 0.8 |
| | | | 0.7 | 1.0 | 2.1 | 1.6 | 0.5 |
| | URLA | S_F-2 | 43.8 | 48.1 | 1.6 | 60.2 | 60.3 |
| | | | 50.4 | 48.2 | 19.5 | 61.4 | 60.2 |
| | MENEMEN | S_F-3 | 17.0 | 42.2 | 6.3 | 0.0 | 21.9 |
| | | | 17.5 | 0.1 | 20.3 | 21.5 | 20.3 |

Table 16 gives the results of this comparison. According to this, one student (S_F-1) in this six sample travels more than 1200 meters away for socio-cultural activities and general shopping. For daily shopping, except for two students (S_M-1 and S_F-2), other students shop within a 1200-meter distance. For sports and eating outside activities, except for two students (S_M-2 and S_F-1), other students shop within a 1200-meter distance.

## 5.3. Sense of Safety and Comfort Areas of Students

Here, we examined which areas of the city and for what purpose they used by university students, which modes of transportation they preferred to go there, and the reasons that affect them. We asked six main questions about this in the survey. These:

- Feeling comfortable and safe in the neighborhood and house they live in.
- These are places he enjoyed and did not enjoy visiting the most.
- Places where he would not want to be alone or would not mind being alone, and places he could use at night.

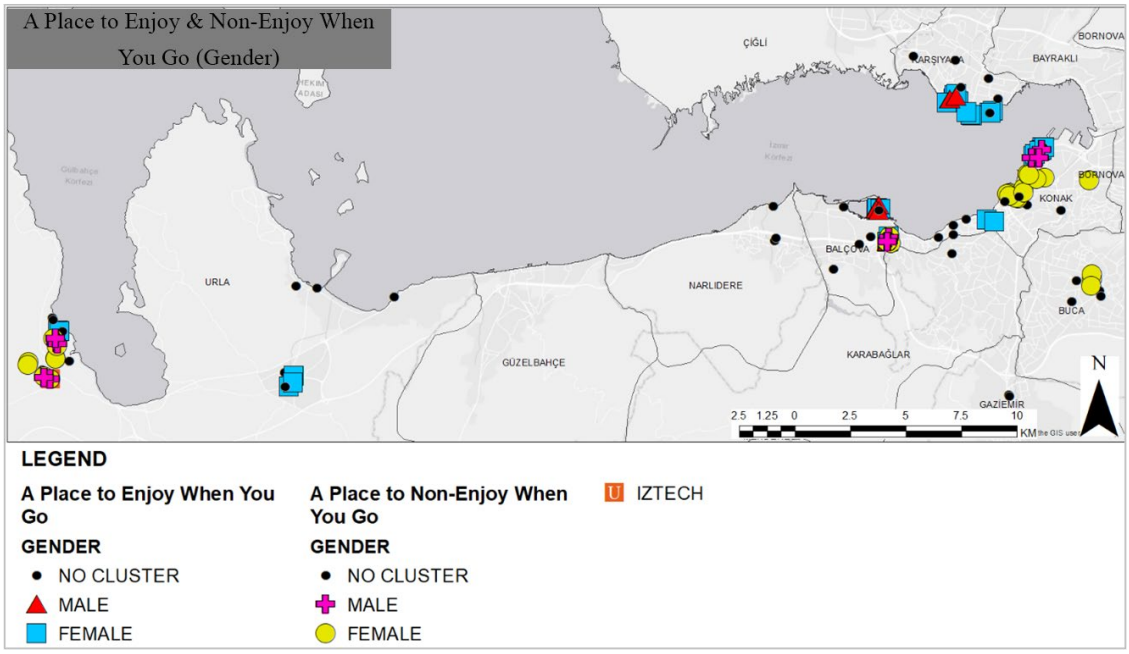



Figure 54: A Place to Enjoy & Non-Enjoy When You Go (Gender).

When we look at the places where enjoyable places form clusters in cluster analysis, we see that most clusters are in Konak with 4 clusters. The following clusters are in Karşıyaka with 3 clusters. When we look at the places where non-enjoyable places form clusters in cluster analysis, we see that most clusters are in the university region with 4 clusters. The following clusters are in the Konak region with 3 clusters (Figure 54).

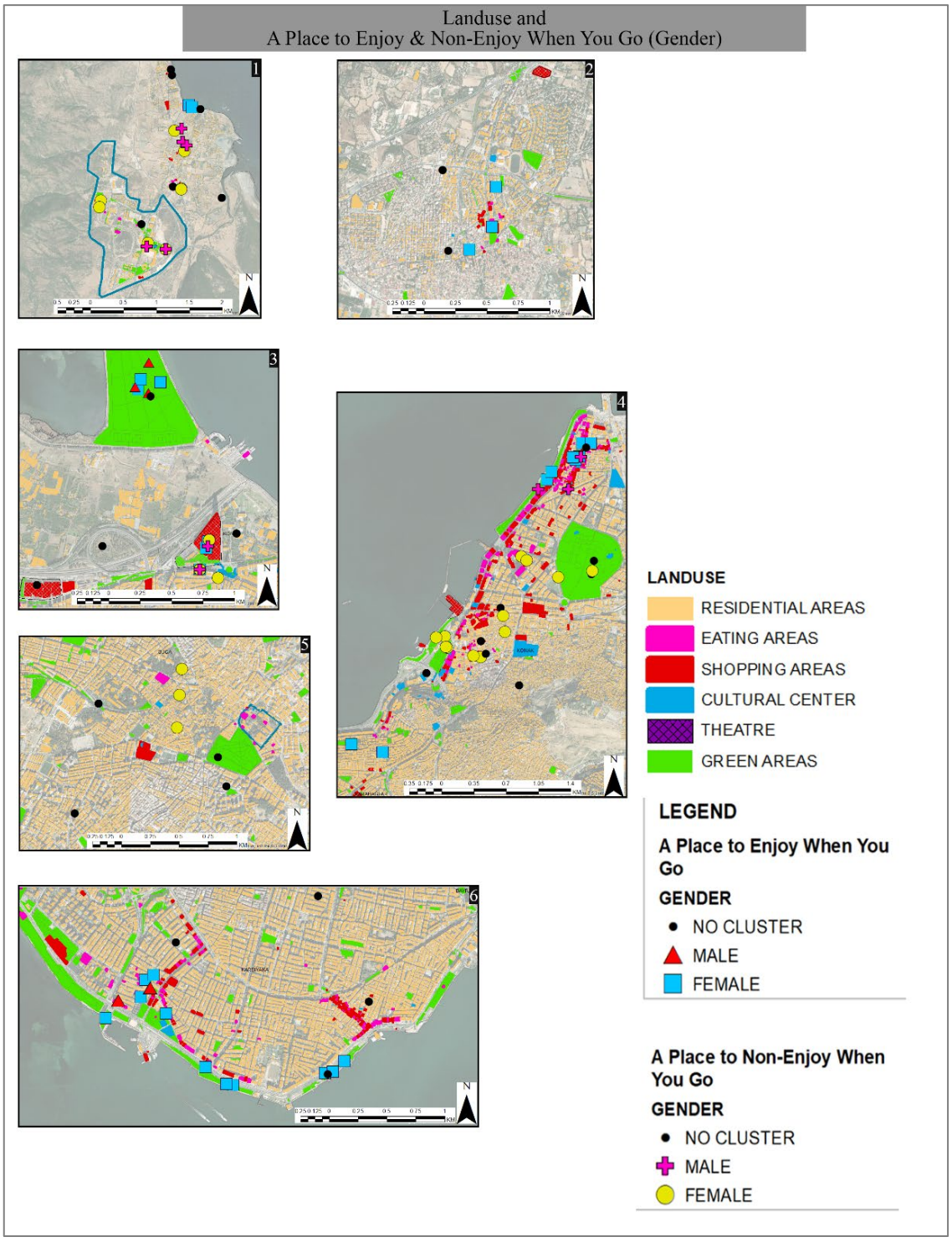



Figure 55: Landuse and A Place to Enjoy & Non-Enjoy When You Go (Gender).

Figure 55 shows the relationship between enjoyable and unenjoyable places and land use. Figure 55-1 (University region) stands out in places that are not enjoyable. The coastal part of this area is marked as only enjoyable by women. Urla central region is also marked as enjoyable only by women. Figure 55-5 (Buca region) shows only places

marked as unenjoyable by women. Figure 55-3 (Fahrettin Altay Region) shows that while the urban forest is marked as enjoyable for both genders, the area around İstinye Park Avm is mixed as enjoyable and unenjoyable. Figure 55-4 (Alsancak Region) shows an interesting result. While the area around Kıbrıs Şehitleri Street is marked as enjoyable by women, the same area is marked as unenjoyable by men. The area between Kültürpark and Konak Square is marked as unenjoyable for women.

Figure 56 shows the reasons for enjoyable places, and Figure 57 shows the reasons for unenjoyable places. The reason for enjoying the area shown in Figure 55-1 (University region) is Friends, while not enjoying it is school/education. Figure 55-3 (Fahrettin Altay Region) shows that the urban forest area is around Figure 55-6 (Karşıyaka Region), and the reason for enjoyment is the Seaside. Figure 55-6 (Karşıyaka Region) shows the reason for enjoyment is the Seaside. Figure 55-4 (Alsancak Region) shows that the reason for enjoyment is Sea-side, various, relax, and the reason for not enjoying it is crowded, insecure, and refugee. Figure 55-5 (Buca Region) shows that the reason for the lack of enjoyment is insecure.

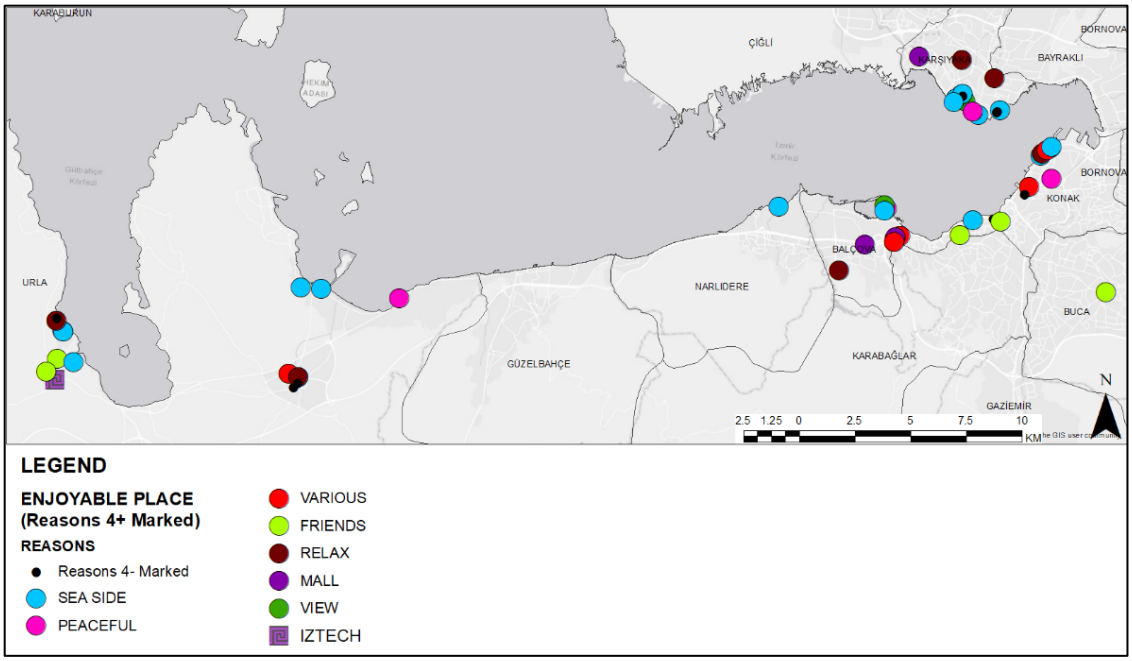



Figure 56: A Place to Enjoy When You Go (Reasons).

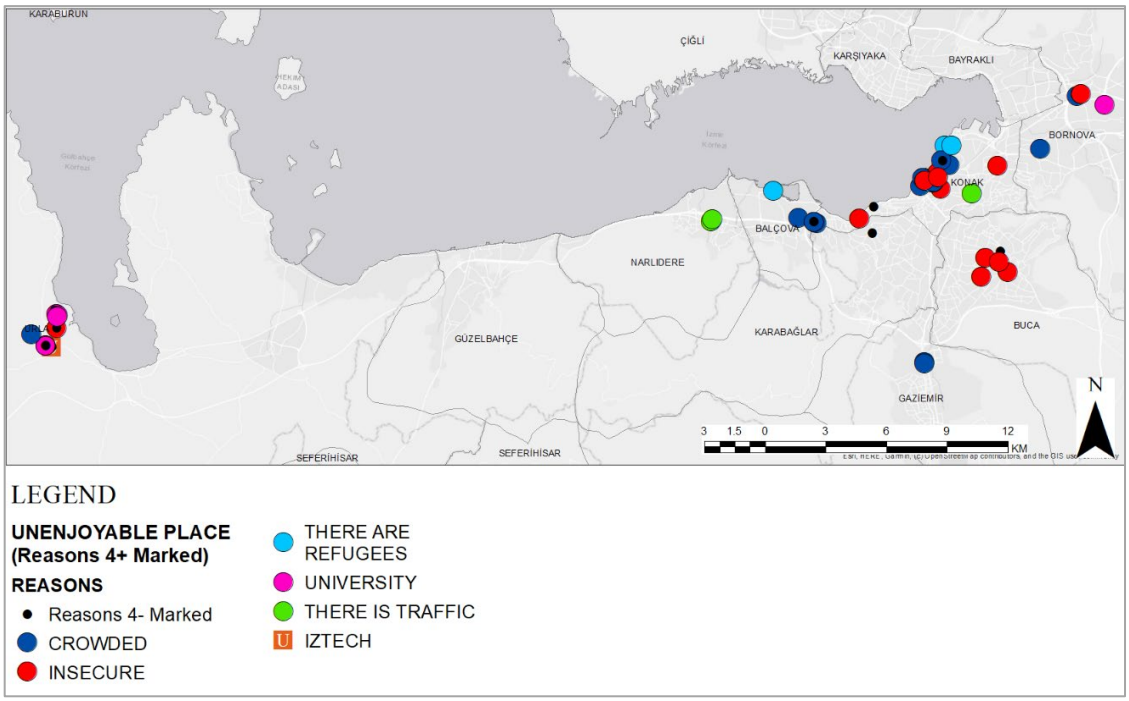



Figure 57: A Place to Non-Enjoy When You Go (Reasons).

# CHAPTER 6

# CONCLUSIONS AND RECOMMENDATIONS

## 6.1. Conclusions

This thesis explains the factors affecting urban experiences and perception when using activity areas. A literature review was conducted based on research that explains the urban experience and examines the factors that affect it. As a result, the research data were collected at the Izmir Institute of Technology using quantitative and qualitative research methods. For this purpose, Survey123, a qualitative GIS application, was used. Here, the survey was prepared through open-ended questions and spatial markings. The study analyzed data to reveal the factors affecting students' urban experience and perception, such as mode of transportation, reason for using, travel distance, and land use in Izmir. This study is the first in Turkey to investigate the socio-cultural and physical environment factors that shape students' urban experience and perceptions (18-25 years old). The study findings are significant in developing policies for campus location selection and planning the cities for university students—the research results are summarized and discussed under the following headings.

- **Effects of Individual Characteristics of Respondents on Urban Experiences**

In the descriptive statistics, we saw that the female students participated in the survey more than the male students; the 22-25-year-old group had the highest participation (Table 4).

The percentage of male students working in a paid job is more than that of female students. At the same time, the percentage of female students on scholarship is more than that of male students. According to income data, the average income is 750 TL up to 4 times, and the percentage of male students' income is more than that of female students. According to household income data, the average household income is minimum wage up to 4 times, and the percentage of male students' income is more than that of female

students. The percentage of male students' vehicle ownership is more than that of female students (Table 5).

When we look at the places where students live, most students live in Urla/Güzelbahçe. Later, he lived in Buca, Karabağlar, and Karşıyaka (Figure 24 - Table 8). The percentage of male students living with parents is more than that of female students. At the same time, the most significant accommodation problem for all students is high rents (Table 6).

It was observed that most of the students had been living in Izmir for more than three years (Table 7).

Table 17: Results of Descriptive Statistics for Individual Characteristics of Students.

| | Hypothesis | Data | Results of Descriptive Statistics | |
|---|---|---|---|---|
| | | | **Age** | **Gender** |
| **Individual Characteristics of Students** | Young people are more active and have more urban experience than older people and children. | Age and Distance | **increasing** age of students → **increasing** urban experience (based on the distance traveled within the city) **(Appendix D – Table 1)** | X |
| | As they get older, they may stay out late at night. | Age and Using Period | **increasing** age of students → **increasing** stay out late at night (based on the percentage number of students who can stay out at night) **(Appendix D – Table 2)** | X |
| | Women encounter safety concerns that impact their mobility choices and preferred destinations. | Gender and Using Reason | X | when students are female or male → safety concerns impact their mobility choices (they prefer safe place) **(Table 9)** |
| | Men can stay out later than women. | Gender and Using Period | X | when students are female or male → stay out late at night is equal (based on the percentage number of students who can stay out at night) **(Appendix D – Table 2)** |
| | Lower-income individuals require assistance in affordable housing, education, and healthcare. | Income | X | X |
| | Higher-income individuals enjoy greater access to resources and amenities. | | X | X |
| | People who own cars can travel further. | Car Ownership | X | when students are male → Those who car ownership travel less distance than those who do not car ownership. when students are female → Those who have car ownership travel the same distance as those who do not have car ownership. **(Appendix D – Table 3)** |
| | Young individuals living with parents or relatives have limited independence, affecting their city exploration and social engagement. | Living with or without parents | when students are male or female → The average distance traveled by male and female students living with their families for socio-cultural activities is approximately 10 km lower than that of male and female students who do not live with their families. **(Appendix D – Table 3)** | |
| | Students who lived in the same city before university are better at experiencing the city because they are familiar with it. | Living Time | X | X |

According to our descriptive analyses, focusing on the data that gives significant results would be more meaningful.

A negative relationship exists between being young and students' urban experience tendency. This result contradicts the study and the hypothesis of Ittelson (1978).

There is a positive relationship between the increasing age of students and the tendency to stay out late at night for all students. These results agree with the hypothesis. As the age of the students increases, environmental perceptions change. Family pressure decreases or living alone/away from family increases, and they act more freely. As a result of the development of friendship relations in the university environment, the areas where they can socialize change and increase. Because they act together, they feel safer and spend time outside until later hours.

For all students, there is a positive relationship between gender and safety concerns that impact their mobility choices and tendencies. All students prefer safe places. These results contradict the studies of McDowell (1999) and Chen et al. ( 2011) and the hypothesis.

For all students, there is a positive relationship between gender and the tendency to stay out late. All student's tendency to stay out late at night is equal. These results contradict the studies of Humberto et al. (2022) and Gough (2008) and the hypothesis.

A negative relationship exists between students' car ownership (having a car they can drive) and their families' ownership and driving longer distances within the city. We found that male students with car ownership travel less distance than those without car ownership. Among female students, those who own a car and those who do not travel the same distance. These results contradict the studies of Tani and Surma-aho (2012) and Mennis et al. (2013) and the hypothesis.

A negative relationship exists between students' living with the family and their social participation. The average distance traveled by male and female students living with their families for socio-cultural activities is approximately 10 km lower than that of male and female students who do not live with their families. These results agree with the hypothesis.

## • Effects of Earlier Experience of Respondents on Urban Experiences

Whether the place where university students live before coming to Izmir is rural or urban or metropolitan affects the urban experience of students due to opportunities, access options or socio-cultural differences. Students coming from cities similar to Izmir adapt faster and discover different parts of the city.

Table 18: Results of Descriptive Statistics for Earlier Experiences of Students.

| | **Hypothesis** | **Data** | **Results of Descriptive Statistics** | |
|---|---|---|---|---|
| | | | **Age** | **Gender** |
| **Earlier Experience of Students** | Their previous living environment and family situation influence their experiences, with rural/suburban students having different expectations than urban students. | The City of Residence Before University | X | when students are male → distance traveled increases when students are female → distance traveled is the same **(Appendix D – Table 2)** |
| | Urban students may be familiar with city life, while rural students must adapt to the faster pace and increased stimuli. | | | X |

The average distance traveled by male students coming from the most crowded cities is approximately two times higher than that of male students coming from other cities. The average distance traveled by female students coming from the most crowded cities is approximately equal to that of female students coming from other cities. These results agree with the hypothesis for male students but contradict the studies of McDowell (1999) and Langevang and Gough ( 2009) and the hypothesis.

## • Effects of Socio-Spatial Characteristics of Space to Urban Experiences

Security concerns may impose mobility limitations and resource accessibility challenges for individuals. Proximity to the city center, particularly for university

students' homes and campuses, fosters vibrant, diverse environments with social, cultural, and economic opportunities, promoting walkability, reducing car dependency, and enhancing access to public transportation.

Table 19: Results of Descriptive Statistics for Socio-Spatial Characteristics of Space.

| | **Hypothesis** | **Data** | **Results of Descriptive Statistics** | |
|---|---|---|---|---|
| | | | **Age** | **Gender** |
| **Socio-Spatial Characteristics of Space** | Individuals may face mobility restrictions and difficulty accessing resources due to security concerns. | Sense of Safety and Comfort | X | when students are male or female → All students preferred places close to their homes for activities. **(Table 9)** |
| | Those closer to the center can experience more places, while those farther from the center can only experience their surroundings. | Distance From University and City Center | X | when students are male or female → those closer to the center experience more space than others. **(Table 39)** |
| | The location of university students' homes and universities close to the center can create vibrant and diverse environments that offer amenities and opportunities for social interaction, cultural exchange, and economic activities. | | | when students are male or female → university campuses have become places of interaction for students. **(Table 40)** |

We saw that all students chose activity areas close to their homes due to security concerns, and those closer to the center experienced more space than others. University campuses have become places of interaction for students. These results agree with the hypothesis.

- **Findings of Cluster Analysis Results**

In the cluster analysis, we saw that students whether the places in the city preferred by students for different activities formed a cluster and examined the city regions where there were clusters.

Table 20: Findings of Cluster Analysis Results

| | Activity Areas | Data | Region of City | Findings of Cluster Analysis Results | | |
|---|---|---|---|---|---|---|
| | | | | Male | Female | Total |
| Location of Activity Areas | Socio-cultural Activities | **(Figure-28) (Figure-29)** | - Konak Pier Mall<br>-Kıbrıs Şehitleri Street<br>-Kültürpark | According to clusters analysis, there are most clusters in the Alsancak region. | | |
| | Daily Shopping | **(Figure-30) (Figure-31)** | -İstinye Park Mall<br>-Hatay-Üçyol (Subway Line Diraction)<br>-Gülbahçe Merkez Street | Male students preferred Hatay-Üçyol (Subway Line Direction), Alsancak and Bornova surroundings. | Urla center, Buca, Gaziemir (Mall area) and Bornova (Mall area), Karşıyaka (Mall area) surroundings were more preferred by female students. | Both genders prefer the area around Gülbahçe Merkez Street and İstinye Park Mall. |
| | General Shopping | **(Figure-32) (Figure-33)** | -Urla center (Art Street) and Bamboo Mall<br>-İstinye Park Mall<br>-Kıbrıs Şehitleri Street | Students prefer shopping streets or shopping malls for general shopping. | | |
| | Eating outside | **(Figure-34) (Figure-35)** | -İstinye Park Mall<br>- Hatay-Üçyol Metro stations<br>- Kıbrıs Şehitleri Street | İstinye Park Mall, Hatay-Üçyol Metro stations and Alsancak Kıbrıs Şehitleri Street have become the most preferred areas for eating out. | | |
| | Sports Activity Areas | **(Figure-37) (Figure-38)** | -Göztepe Seaside<br>-Gülbahçe Seaside | The city's seaside and large green areas are preferred for sports. | | |

We saw that activity areas were distributed in different areas in the city according to activity types. We intersect the cluster analysis and university campus areas. Then, we see four university areas and activity areas intersect. These areas are important because space arrangements can be made for students around the campus.

- **Findings of Network Analysis Results**

Network analysis was conducted to understand the closeness in terms of distance between where students live and their areas of activity. It was examined which activities students could access within walking distance.

Table 21: Findings of Network Analysis Results

| | Activity Areas | Data | Findings of Cluster Analysis Results | | |
|---|---|---|---|---|---|
| | | | Male | Female | Total |
| Accessibility of Activity Areas | Socio-cultural activities are clustered in certain areas of the city. | **(Figure-42) (Table-11)** | We see that socio-cultural activities are clustered in the center of the city and Bus-Metro (Public Transport) is used to go there. | | |
| | Home arounds are preferred for daily shopping. | **(Figure-44) (Table-12)** | We see that daily shopping is clustered within walking distance around home locations and walking is preferred to get there. | | |
| | For general shopping, bazaar/shopping mall is preferred. | **(Figure-46) (Table-13)** | There are 5 home network areas in total. Three of them intersect with the shopping areas of the city, and the home network and general shopping areas overlap here, but we can say that although the shopping areas in the Urla and Gülbahçe regions are not as dense as in the city center, they are preferred due to the distance and Bus-Metro (Public Transport) is used to go there.. | | |
| | The entertainment/shopping areas of the city are preferred for eating out. | **(Figure-48) (Table-14)** | There is a similar situation here with general shopping. Home network and eating outside areas overlap here, but we can say that although in the Urla and Gülbahçe regions are preferred due to the distance. Because of these areas are far from the city center. Differently, walking is preferred to get there. | | |
| | Green areas/coastlines of the city are preferred for sports areas. | **(Figure-50) (Table-15)** | We see that students mostly prefer the seaside and parks for sports areas. In addition, the Alsancak region is also preferred due to its fitness centers. Bus-Metro (Public Transport) is used to go there. | | |

- **Findings of Sense of Safety and Comfort Areas Results**

Table 22: Findings of Sense of Safety and Comfort Areas Results

| | Activity Areas | Data | Findings of Cluster Analysis Results | | |
|---|---|---|---|---|---|
| | | | Male | Female | Total |
| Status of Enjoyable the Activity Areas | A Place to Enjoyable | **(Figure-56)** | Students enjoy Fahrettin Altay (Urban Forest) and Karşıyaka Region because it is by the sea. | | |
| | A Place to Non-Enjoyable | **(Figure-57)** | The reasons why students cannot enjoy themselves in the Alsancak Region are crowding, insecurity, and refugees. | The reason why students cannot enjoy the Buca Region is insecurity. | The reason why students do not enjoy the University Region is classes. |

## 6.2. Recommendations

As a result of the analysis, suggestions were developed for city planning at three different scales.

City scale recommendations are:

- It has been observed that the activity areas used by students in the city overlap with university campuses. These universities are Ege University, Izmir University of Economics, and Dokuz Eylül University. These emerge as important interface spaces in the city. The opportunities offered by universities, which are public contact areas, in terms of socialization are gaining importance.

University campus environments should be planned as public spaces, and spaces that all students can use should be designed. An example of this is the Co-working area at İstinye Park Mall.

District scale recommendations are:

Here, we made policy suggestions for public spaces.

- We saw that students preferred parks and the seaside for sports activities.
- The coastal area needs to provide not just a road but a public meeting space for students. The coastline should be rearranged to allow young people and students to meet.
- In addition, necessary arrangements should be made for the main large parks in the city to be preferred by students as sports and meeting areas instead of shopping malls.

Recommendations on a tactical scale include:

Here we made suggestions for IZTECH and its surroundings.

- As we see from the analysis, IZTECH and its surroundings are used for all activities since it is approximately 50 km away from the city center. However, the reason for its use stands out as there is no other alternative. Therefore some improvements should be made here.
- Socio-cultural activity areas that students can use should be built in Gülbahçe center.
- A strong road axis that is illuminated and allows pedestrian and bicycle use should be built between Gülbahçe center and campus.
- Gülbahçe coastline needs to be transformed into a public meeting place, not just a beach.

# REFERENCES


AlArasi, Haifa, J.C. Gimeno Martinez, and Sherif Amer. 2018. “Children’s Perception of Their City Centre.” In CRC Press eBooks, 163–82. https://doi.org/10.1201/9781315146638-10.

Bagheri, Nazgol. 2014. “What Qualitative GIS Maps Tell and Don’t Tell: Insights from Mapping Women in Tehran’s Public Spaces.” Journal of Cultural Geography 31 (2): 166–78. https://doi.org/10.1080/08873631.2014.906848.

Boschmann, E. Eric, and Emily Cubbon. 2013. “Sketch Maps and Qualitative GIS: Using Cartographies of Individual Spatial Narratives in Geographic Research.” The Professional Geographer 66 (2): 236–48. https://doi.org/10.1080/00330124.2013.781490.

Chang, Kang-Tsung. 2017. “Geographic Information System.” International Encyclopedia of Geography, March, 1–9. https://doi.org/10.1002/9781118786352.wbieg0152.

Chen, Jie, Shih-Lung Shaw, Hongbo Yu, Feng Lü, Yanwei Chai, and Qinglei Jia. 2011. “Exploratory Data Analysis of Activity Diary Data: A Space–Time GIS Approach.” Journal of Transport Geography 19 (3): 394–404. https://doi.org/10.1016/j.jtrangeo.2010.11.002.

Clandinin, D. Jean, and F. Michael Connelly. 2004. Narrative Inquiry: Experience and Story in Qualitative Research. John Wiley & Sons.

Curtis, Andrew. 2012. “Integrating Sketch Maps with GIS to Explore Fear of Crime in the Urban Environment: A Review of the Past and Prospects for the Future.” Cartography and Geographic Information Science 39 (4): 175–86. https://doi.org/10.1559/15230406394175.

Doğan, Hüseyin, and Gökçe Akçali. 2021. “Üniversite Öğrencilerinin Yaşadıkları Sosyo- Ekonomik Sorunlar Üzerine Bir İnceleme.” Üniversite Araştırmaları Dergisi 4 (3): 309–16. https://doi.org/10.32329/uad.903559.

Dueker, Kenneth J. 1987. “Geographic Information Systems and Computer-Aided Mapping.” Journal of the American Planning Association 53 (3): 383–90. https://doi.org/10.1080/01944368708976457.

Elwood, Sarah, and Meghan Cope. "Introduction: Qualitative GIS: Forging Mixed Methods Through Representations, Analytical Innovations, and Conceptual Engagements." In Qualitative GIS: A Mixed Methods Approach, edited by Elwood, Sarah, and Meghan Cope, 1-12. London: SAGE Publications Ltd, 2009. https://doi.org/10.4135/9780857024541.

Evans, Gary W. 1980. “Environmental Cognition.” Psychological Bulletin 88 (2): 259–87. https://doi.org/10.1037/0033-2909.88.2.259.

Friman, Margareta, Lars E. Olsson, E. Owen D. Waygood, and Raktim Mitra. 2020. "Transport and Children's Wellbeing: Future Directions." In Elsevier eBooks, 361–73. https://doi.org/10.1016/b978-0-12-814694-1.00019-1.

Golledge, Reginald G. 1997. Spatial Behavior: A Geographic Perspective. Guilford Press.

Gonçalves, Monica Villaça, and Ana Paula Serrata Malfitano. 2020. "Brazilian Youth Experiencing Poverty: Everyday Life in the Favela." Journal of Occupational Science 27 (3): 311–26. https://doi.org/10.1080/14427591.2020.1757495.

Goodchild, Michael F., Luc Anselin, Richard P. Appelbaum, and Barbara Herr Harthorn. 2000. "Toward Spatially Integrated Social Science." International Regional Science Review 23 (2): 139–59. c

Gough, Katherine V. "'Moving Around': The Social and Spatial Mobility of Youth in Lusaka." Geografiska Annaler. Series B, Human Geography 90, no. 3 (2008): 243–55. http://www.jstor.org/stable/40205050.

Gürses, Fulya and Gürses, Hasan Basri. 1979. "Dünya'da ve Türkiye'de gençlik". Der Yayınları No.8 İstanbul.

Ho, Elaine Lynn-Ee, Guan Qun Zhou, Jian An Liew, Tuen Yi Chiu, Shirlena Huang, and Brenda S. A. Yeoh. 2020. "Webs of Care: Qualitative GIS Research on Aging, Mobility, and Care Relations in Singapore." Annals of the American Association of Geographers 111 (5): 1462–82. https://doi.org/10.1080/24694452.2020.1807900.

Humberto, Mateus, Filipe Moura, and Mariana Abrantes Giannotti. 2022. "Incorporating Children's Views and Perceptions about Urban Mobility: Implementation of the 'Philosophy with Children' Inquiry Approach with Young Children." Travel Behaviour and Society 26 (January): 168–77. https://doi.org/10.1016/j.tbs.2021.10.003.

Fatemeh, Imani, and Marzieh Tabaeian. 2012. "Recreating Mental Image with the Aid of Cognitive Maps and Its Role in Environmental Perception." Procedia - Social and Behavioral Sciences 32 (January): 53–62. https://doi.org/10.1016/j.sbspro.2012.01.010.

Ittelson, William H. 1978. "Environmental Perception and Urban Experience." Environment and Behavior 10 (2): 193–213. https://doi.org/10.1177/0013916578102004.

Karadağ, Arife, and Hatice Turut. 2013. "Üniversite Öğrencilerinin Kentsel Çevre Algısı Üzerine Bir Araştırma: İzmir Örneği." Coğrafi Bilimler Dergisi 11 (1): 31–51. https://doi.org/10.1501/cogbil_0000000141.

Keats, Patrice A. 2009. “Multiple Text Analysis in Narrative Research: Visual, Written, and Spoken Stories of Experience.” Qualitative Research 9 (2): 181–95. https://doi.org/10.1177/1468794108099320.

Knigge, LaDona, and Meghan Cope. 2006. “Grounded Visualization: Integrating the Analysis of Qualitative and Quantitative Data through Grounded Theory and Visualization.” Environment and Planning A: Economy and Space 38 (11): 2021–37. https://doi.org/10.1068/a37327.

Kwan, Mei-Po, and Guoxiang Ding. 2008. “Geo-Narrative: Extending Geographic Information Systems for Narrative Analysis in Qualitative and Mixed-Method Research∗.” The Professional Geographer 60 (4): 443–65. https://doi.org/10.1080/00330120802211752.

Langevang, Thilde, and Katherine V. Gough. 2009. “Surviving through Movement: The Mobility of Urban Youth in Ghana.” Social & Cultural Geography 10 (7): 741–56. https://doi.org/10.1080/14649360903205116.

Lefebvre, Henri. 1992. “The Production of Space.” Economic Geography 68 (3): 317. https://doi.org/10.2307/144191.

Lynch, Kevin. 1964. The Image of the City. MIT Press.

Malpas, Jeff. “Place, Space, and World.” In Heidegger and the Thinking of Place: Explorations in the Topology of Being, 113–36. The MIT Press, 2012. http://www.jstor.org/stable/j.ctt5vjp35.10.

McDowell, Linda. 1999. Gender, Identity and Place: Understanding Feminist Geographies. U of Minnesota Press.

Mennis, Jeremy, MichaelJ. Mason, and Yinghui Cao. 2013. “Qualitative GIS and the Visualization of Narrative Activity Space Data.” International Journal of Geographical Information Science 27 (2): 267–91. https://doi.org/10.1080/13658816.2012.678362.

Mitchell, Hannah, Robin Kearns and Damian Collins. “Nuances of neighbourhood: Children’s perceptions of the space between home and school in Auckland, New Zealand.” Geoforum 38 (2007): 614-627.

Mugerauer, Robert. 2000. “Qualitative GIS: To Mediate, Not Dominate.” In Advances in Spatial Science, 317–38. https://doi.org/10.1007/978-3-662-04027-0_19.

Neyzi, Leyla. 2001. “Object or Subject? The Paradox of « youth » in Turkey.” Autrepart n° 18 (2): 101–17. https://doi.org/10.3917/autr.018.0101.

Oyman, Duygu. 2019. “İstanbuldaki üniversite gençliğinin toplumsal mekân ve şehir algısı” (İstanbul Ticaret Üniversitesi Sütlüce Kampüsü örneği) (Master's thesis, Sosyal Bilimler Enstitüsü).

Perchoux, Camille, Basile Chaix, Steven Cummins, and Yan Kestens. 2013. "Conceptualization and Measurement of Environmental Exposure in Epidemiology: Accounting for Activity Space Related to Daily Mobility." Health & Place 21 (May): 86–93. https://doi.org/10.1016/j.healthplace.2013.01.005.

Rahimi, Farzan Baradaran, Richard M. Levy, Jeffrey E. Boyd and Shima Dadkhahfard. "Human behaviour and cognition of spatial experience; a model for enhancing the quality of spatial experiences in the built environment." International Journal of Industrial Ergonomics (2018).

Relph, Edward. 1976. "Place and placelessness" London: Pion Limited.

Rodrigue, Jean-Paul. 2020. *The Geography of Transport Systems*. Routledge.

Saraví, Gonzalo A. 2015. "Youth Experience of Urban Inequality: Space, Class, and Gender in Mexico." In Springer eBooks, 503–15. https://doi.org/10.1007/978-981-4451-15-4_45.

Schönfelder, Stefan, and Kay W. Axhausen. 2003. "Activity Spaces: Measures of Social Exclusion?" Transport Policy 10 (4): 273–86. https://doi.org/10.1016/j.tranpol.2003.07.002.

Smith, Lindsey G., Louise Foley, and Jenna Panter. 2019. "Activity Spaces in Studies of the Environment and Physical Activity: A Review and Synthesis of Implications for Causality." Health & Place 58 (July): 102113. https://doi.org/10.1016/j.healthplace.2019.04.003.

Tani, Sirpa, and Outi Surma-Aho. 2012. "Young People and the Hidden Meanings of the Everyday: Time-Space Path as a Methodological Opportunity." International Research in Geographical and Environmental Education 21 (3): 187–203. https://doi.org/10.1080/10382046.2012.698077.

Tuan, Yi-Fu. 1977. Space and Place: The Perspective of Experience. U of Minnesota Press.

Turan, Büşra. "A Qualitative Research on the Spatial Experiences of Youths Living in the Gazi District." Master diss. University of Istanbul, 2017.

Verd, Joan Miquel, and Sergio Porcel. 2012. "An Application of Qualitative Geographic Information Systems (GIS) in the Field of Urban Sociology Using ATLAS.Ti: Uses and Reflections". Forum Qualitative Sozialforschung Forum: Qualitative Social Research 13 (2). https://doi.org/10.17169/fqs-13.2.1847.

Winton, Ailsa. 2005. "Youth, Gangs and Violence: Analysing the Social and Spatial Mobility of Young People in Guatemala City." Children's Geographies 3 (2): 167–84. https://doi.org/10.1080/14733280500161537.

Zwerts, Enid, Georges Allaert, Davy Janssens, Geert Wets, and Frank Witlox. 2010. "How Children View Their Travel Behaviour: A Case Study from Flanders

(Belgium).” JOURNAL OF TRANSPORT GEOGRAPHY 18 (6): 702–10. https://doi.org/10.1016/j.jtrangeo.2009.10.002.

Ergler, Christina R., Robin Kearns, Karen Witten, and Gina Porter. 2016. “Digital Methodologies and Practices in Children’s Geographies.” Children’s Geographies 14 (2): 129–40. https://doi.org/10.1080/14733285.2015.1129394.

Law, Lisa. 2005. Introducing Human Geographies. Edited by Paul Cloke, Philip Crang, and Mark Goodwin. Vol. 439–450. London, -: Hodder Education.

Christensen Pia Monrad and Margaret O'Brien. 2003. Children in the City : Home Neighbourhood and Community. London: RoutledgeFalmer. https://doi.org/10.4324/9780203167236.

Burns, Aušra. “Emotion and Urban Experience: Implications for Design.” Design Issues 16, no. 3 (2000): 67–79. http://www.jstor.org/stable/1511816.

Hayward, Keith J. 2004. City Limits: Crime, Consumer Culture and the Urban Experience. Routledge.

Moustafa, Amer Adham. 1999. “Transformation in the Urban Experience: Public Life in Private Places.” PhD Dissertation, University of Southern California.

Baravikova, Aliaksandra. 2019. “Combining GIS with Qualitative Methods in Urban Research.” Perekrestki 1: 12–31.

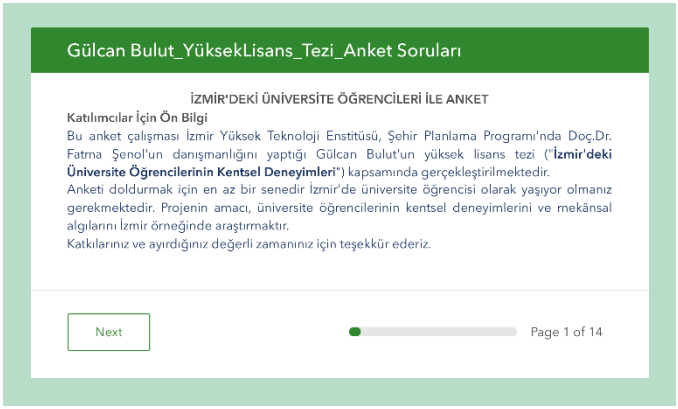
Alaimo, Angela, and Marco Picone. 2015. “Shadowing and Qualitative Gis: Tools for Urban Narrations.” Scienze Del Territorio 3: 391–99.

Ose, Solveig Osborg. 2016. “Using Excel and Word to Structure Qualitative Data.” Journal of Applied Social Science 10 (2): 147–62. https://doi.org/10.1177/1936724416664948.

# APPENDICES

# APPENDIX A

# USER SURVEY


Gülcan Bulut_YüksekLisans_Tezi_Anket Soruları

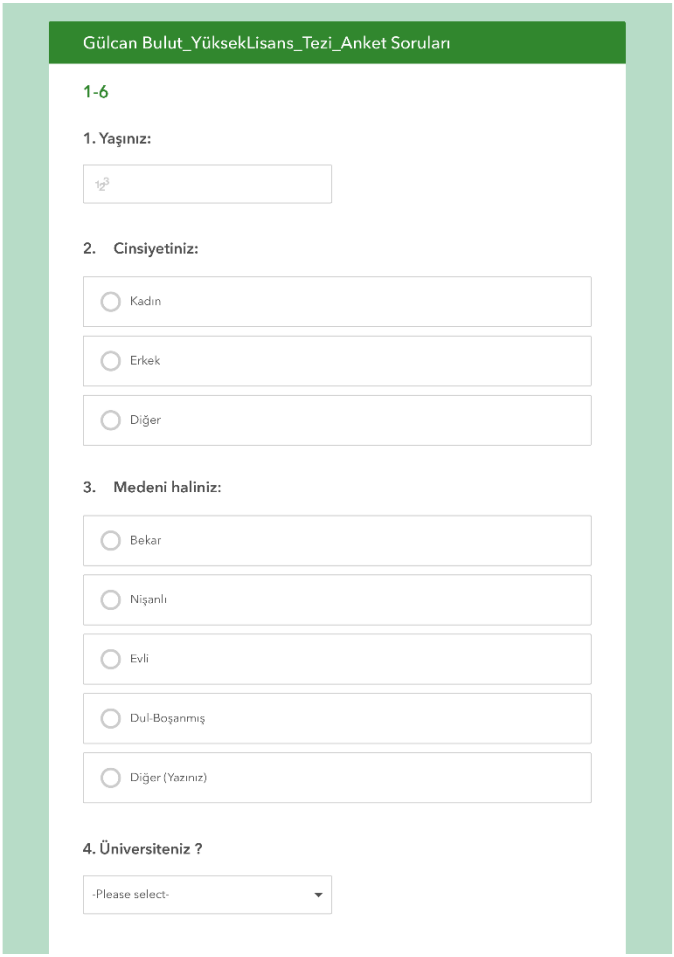
İZMİR'DEKİ ÜNİVERSİTE ÖĞRENCİLERİ İLE ANKET

**Katılımcılar İçin Ön Bilgi**

Bu anket çalışması İzmir Yüksek Teknoloji Enstitüsü, Şehir Planlama Programı'nda Doç.Dr. Fatma Şenol'un danışmanlığını yaptığı Gülcan Bulut'un yüksek lisans tezi ("**İzmir'deki Üniversite Öğrencilerinin Kentsel Deneyimleri**") kapsamında gerçekleştirilmektedir.
Anketi doldurmak için en az bir senedir İzmir'de üniversite öğrencisi olarak yaşıyor olmanız gerekmektedir. Projenin amacı, üniversite öğrencilerinin kentsel deneyimlerini ve mekânsal algılarını İzmir örneğinde araştırmaktır.
Katkılarınız ve ayırdığınız değerli zamanınız için teşekkür ederiz.

Next

Page 1 of 14


Gülcan Bulut_YüksekLisans_Tezi_Anket Soruları

1-6

1. Yaşınız:

2. Cinsiyetiniz:

- Kadın
- Erkek
- Diğer

3. Medeni haliniz:

- Bekar
- Nişanlı
- Evli
- Dul-Boşanmış
- Diğer (Yazınız)

4. Üniversiteniz ?

-Please select-

4-a. Bölümünüz ?

-Please select-

4-b. Kaçıncı Sınıfsınız ?

-Please select-

5. İzmir'de yaşadığınız ilçe , mahalle ve sokağınızı VEYA binanıza en yakın kesişen iki sokak veya park, cami gibi bir yerin adını yazar mısınız?

İlçe:
Mahalle:
Sokak/Park/Cami:

969

6. İzmir'de üniversite eğitiminiz sırasında nasıl barınıyorsunuz?

- Tek başına evde
- Arkadaşlarıyla evde
- Ailesi ile birlikte
- Yakınlarının Yanında
- Özel Yurt- Apart
- Pansiyon
- Diğer (Yazınız)

7. Aile evi dışında yaşıyorsanız; İzmir'de kalacak yer bakarken sorun yaşadınız mı?

- Evet
- Hayır

8. Kaç yıldır İzmir'de yaşıyorsunuz?

9. Üniversite eğitimi için İzmir'e gelmeden önce yaşadığınız şehir ?

11. Ücretli bir işte çalışıyor musunuz?

- Evet
- Hayır

12. Burs ya da öğrenim kredisi alıyor musunuz?

- Evet
- Hayır

13. Burs, aileden aldığınız maddi destek, ücretli işte ve benzeri olanaklarınızı düşünerek: Aylık geliriniz ne kadardır?

- 750 TL'den az
- 750 TL
- 750 TL X katına kadar (YAZINIZ)

14. İzmir'de kullandığınız aracınız var mı?

- [ ] Araba
- [ ] Motosiklet
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Hiçbiri
- [ ] Diğer (Yazınız)

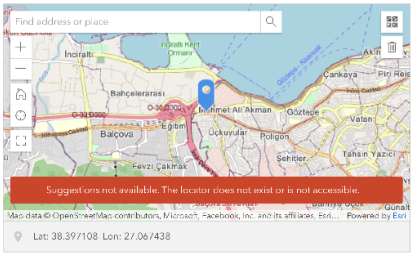
15. Hanenize/ ailenize giren toplam aylık gelir yaklaşık ne kadardır? (2023 yılı asgari ücreti net: 8 bin 506 TL- üzerinden)

- Asgari Ücret Altı
- Asgari Ücret
- Asgari Ücretin X katına kadar (YAZINIZ)

18

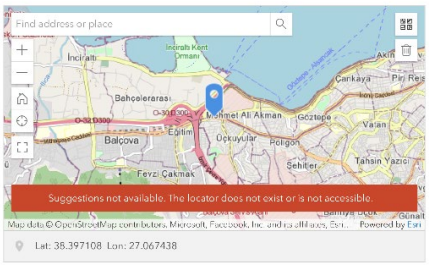
18. Varsa, sosyo-kültürel aktiviteler (Sinema, tiyatro, konser, müze vb. Etkinlikler) için kullandığınız yerlerden 2 tanesini sırayla haritalarda işaretler misiniz?

18-1




18-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

18-2




18-2. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

18-a. Bu yerlere giderken hangi araçları kullanırsınız?

- [ ] Yürüyerek
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Kişisel Araç
- [ ] Otobüs-dolmuş-Metro-Tramvay
- [ ] Taksi
- [ ] Diğer (Yazınız)

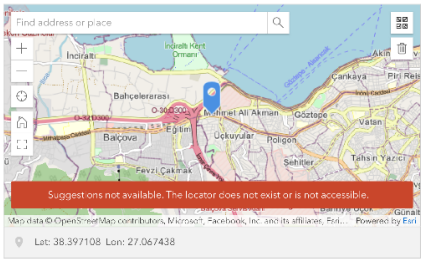
18-b. Neden bu mekanları tercih ediyorsunuz?

- [ ] Eve yakın
- [ ] Sadece orada var (bu aktiviteler için mekanlar kısıtlı)
- [ ] Ucuz
- [ ] Güvenli buluyorum
- [ ] Diğer (Yazınız)

19

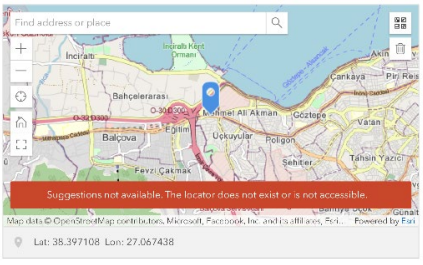
19. Varsa, gündelik mutfak-yeme-içme amaçlı alışverişinizi yapmak için kullandığınız yerlerden 2 tanesini sırayla haritalarda işaretler misiniz?

19-1




19-1 Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

19-2




19-2. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

19-a. Bu yerlere giderken hangi araçları kullanırsınız?

- [ ] Yürüyerek
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Kişisel Araç
- [ ] Otobüs-dolmuş-Metro-Tramvay
- [ ] Taksi
- [ ] Diğer (Yazınız)

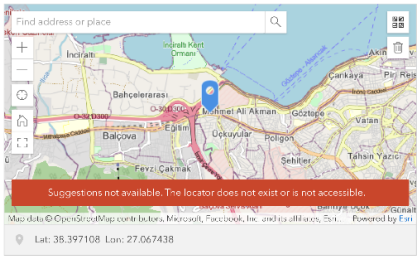
19-b. Neden bu mekanları tercih ediyorsunuz?

- [ ] Eve yakın
- [ ] Sadece orada var (bu aktiviteler için mekanlar kısıtlı)
- [ ] Diğer (Yazınız)

20

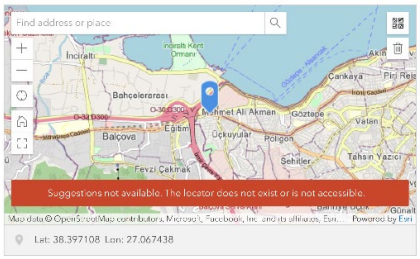
20. Varsa, yiyecek dışı genel alışverişinizi (kıyafet-kırtasiye vb.) yapmak için kullandığınız yerlerden 2 tanesini sırayla haritalarda işaretler misiniz?

20-1




20-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

20-2




20-2. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

20-a. Bu yerlere giderken hangi araçları kullanırsınız?

- [ ] Yürüyerek
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Kişisel Araç
- [ ] Otobüs-dolmuş-Metro-Tramvay
- [ ] Taksi
- [ ] Diğer (Yazınız)

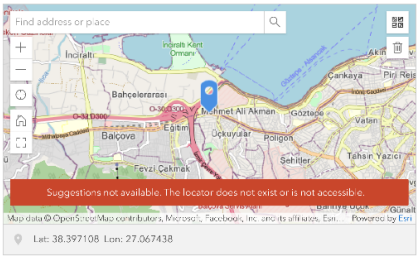
20-b. Neden bu mekanları tercih ediyorsunuz?

- [ ] Eve yakın
- [ ] Sadece orada var (bu aktiviteler için mekanlar kısıtlı)
- [ ] Diğer (Yazınız)

21

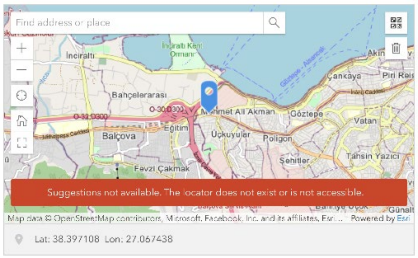
21. Spor, gezinti, yürüyüş, dinlenme için kullandığınız açık ve kapalı alanlardan 2 tanesini sırayla haritalarda işaretler misiniz?

21-1




21-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

21-2




21-2. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

21-a. Bu yerlere giderken hangi araçları kullanırsınız?

- [ ] Yürüyerek
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Kişisel Araç
- [ ] Otobüs-dolmuş-Metro-Tramvay
- [ ] Taksi
- [ ] Diğer (Yazınız)

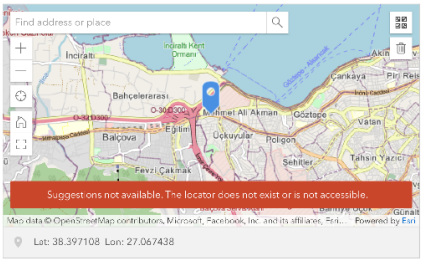
21-b. Neden bu mekanları tercih ediyorsunuz?

- [ ] Eve yakın
- [ ] Sadece orada var (bu aktiviteler için mekanlar kısıtlı)
- [ ] Güvenli Buluyorum
- [ ] Diğer (Yazınız)

22

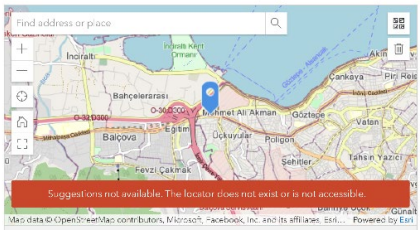
22. Dışarda yeme-İçme için gittiğiniz yerlerden 2 tanesini sırayla haritalarda işaretler misiniz?

22-1




22-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

22-2




22-2. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

22-a. Bu yerlere giderken hangi araçları kullanırsınız?

- [ ] Yürüyerek
- [ ] Bisiklet
- [ ] Elektrikli Scooter
- [ ] Kişisel Araç
- [ ] Otobüs-dolmuş-Metro-Tramvay
- [ ] Taksi
- [ ] Diğer (Yazınız)

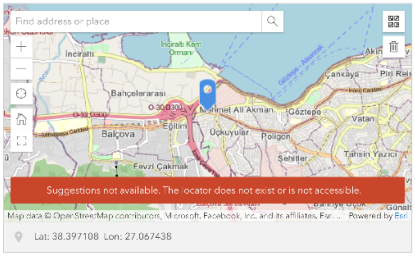
22-b. Neden bu mekanları tercih ediyorsunuz?

- [ ] Eve yakın
- [ ] Sadece orada var (bu aktiviteler için mekanlar kısıtlı)
- [ ] Ucuz
- [ ] Diğer (Yazınız)

26-27

26. Ziyaret ettiğinizde en çok keyif aldığınız yeri haritalarda işaretler misiniz?

26-1



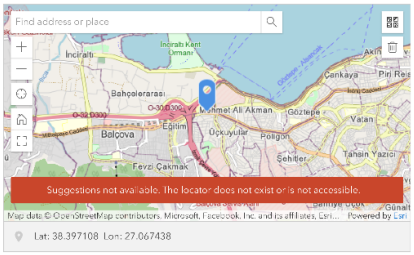

26-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

26-a. Keyifli hissetme nedenleriniz nelerdir?

1000

27. Ziyaret ettiğinizde en keyif almadığınız yeri haritalarda işaretler misiniz?

27-1




27-1. Eğer harita açılmaz ise; haritada işaretleyeceğiniz yerin adını ya da Semt/Sokak/Cadde vb. bilgisini yazar mısınız?

27-a. Keyifsiz hissetme nedenleriniz nelerdir?

1000

Gülcan Bulut_YüksekLisans_Tezi_Anket Soruları

Vakit ayırdığınız ve anketi yanıtlayarak tezime katkıda bulunduğunuz için **Teşekkür Ederim.**

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# APPENDIX B

# REASONS FOR NON-ENJOYABLE PLACE (CODING)

| NON-ENJOYABLE PLACE | REASON |
|---|---|
| Because there aren't any activities | NO-ACTIVITY |
| Because there are no activities. | |
| We go there to study. | STUDY |
| Unsafe | INSECURE |
| It's very difficult to commute from my home, and there aren't enough nice places for university life. There are times when I don't feel safe, and it's hard to return home at night. | |
| I feel it's unsafe and insecure; there's too much traffic. | |
| I don't feel it's safe | |
| I don't feel safe. | |
| People's behavior<br>Lack of security forces | |
| It's filled with people who act uncultured | |
| I don't feel safe. | |
| They don't pay attention to the people they let in and ignore the disturbing behaviors happening, so we don't feel safe. | |
| I don't feel safe. | |
| It feels generally dirty and unsafe. | |
| I don't think the people living there are trustworthy. | |
| Not a reliable place. | |
| The areas where all the bad elements of society are mostly found, not to discriminate against people but to avoid isolation. | |
| My phone got stolen. | THEFT |
| Walking back to the dorm at night is extremely problematic. There are dogs and wild pigs. Insufficient lighting. | NO LIGHTING |
| Very crowded | CROWDED |
| Being a hub for transportation, chaos, and crowds | |
| There are crowded and chaotic environments. People around generally make uncomfortable remarks and looks. | |
| 1 - Getting to my school is difficult and tiring, and I spend most of my days there.<br>2 - Optimum Mall is closed and very crowded. | |
| It's very crowded. | |
| It's too crowded to walk around comfortably. | |
| It's a restless area with a lot of traffic noise. | |
| It's very crowded and dirty. | |
| It's too crowded. | |

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(Cont. of the Appendix B)

| | |
|---|---|
| 1- Getting to my school is difficult and tiring; I spend most of my days there. 2- Optimum Mall is closed and very crowded. | CROWDED |
| Very crowded, I feel exhausted by the people. | |
| Very crowded and noisy. | |
| Very crowded and dirty. | |
| A restless area with a lot of traffic noise and complexity. | |
| I don't enjoy very crowded and bustling places because I don't like people. | |
| Very crowded places, where the most important pedestrian areas are very close to the main road, causing unease. Also, being in a crowded place, you never know how you're interacting with people; someone might confront you for no reason at any moment. | |
| It feels very crowded and cramped. | |
| There are too many Syrians and Afghans. | THERE ARE REFUGEES |
| It's too noisy and unsafe. | |
| There are people from all walks of life, mainly occupied by refugees, and there are no police around. | |
| I don't like it because it's too crowded and filled with refugees. | |
| There are too many Syrians and Afghans. | |
| The complexity of the human population. | |
| My university and its surroundings :(((( whether it's the distance from the city or the unbearable conditions for students in winter, many things come to mind that I haven't even mentioned... | UNIVERSITY (STUDIES AND LECTURES) |
| I don't like the school. | |
| I don't like being at school. | |
| I don't like being at school; it's much less reliable and lacks anything compared to where I'm used to. | |
| School. | |
| I don't like my school. | |
| The parking lot is bad, impersonal, suffocating. | CARPARK ISSUES |
| I can't find a parking spot when I come home late in the evening. | |
| Everything being very expensive | EXPENSIVENESS |
| Everything being very expensive | |
| Everything is very expensive. | |
| I don't feel comfortable passing by | UNCOMFORTABLE |
| I don't feel comfortable passing by. | |
| Smoking is allowed. | CIGARETTE |
| It's overly crowded, and I can be harassed by florists, beggars, and shameless individuals. | ABUSE |
| A place that recently started allowing non-students and where I've faced verbal harassment multiple times. | |
| The level of education is quite low and dangerous | DANGER |
| There is a lot of traffic and it's crowded | THERE ARE TRAFFIC |
| There's too much traffic and it's crowded. | |

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| | |
|---|---|
| There is too much traffic. | |
| Because I drive during rush hours, there's a lot of traffic, and it becomes a stressful and patience-testing situation. | |
| Limited transportation hours, insufficient or low-quality facilities around, not being able to return home when we have to stay late, and inadequate amenities in the classrooms (like toilet paper, ineffective heating/cooling systems). | TRANSPORTATION IS RESTRICTED |
| People's behaviors don't match mine. | DISPUTE |
| People's behaviors don't match mine. | |
| The city structure was flawed; people were unaware of manners, and there were limited things to do. | |
| Far away and, in my opinion, a very empty place with many unidentified people around. | FAR AWAY |
| Excessive crowding | DENSE |

# APPENDIX C

# REASONS FOR ENJOYABLE PLACE (CODING)

| ENJOYABLE PLACE | REASON |
|---|---|
| Being with my friends. (Except for Feyza Kapus) | FRIENDS |
| Hanging out with friends at the café here. | |
| Many of my friends use this area as a central hub for personal transportation within Izmir. | |
| There are many cafes near my home; I love Bucas. | |
| We usually go there with friends and have a great time. | |
| I find opportunities to socialize with friends there. | |
| There are shopping malls and places to visit around. | SHOPPING MALL |
| The nearest and most active shopping mall is there. | |
| A beautiful shopping mall. | |
| Due to cinema and shopping places, coffee shops. | |
| A lot of my friends live close by, work here, and the presence of many places to spend time in makes it enjoyable even when I'm alone. | VARIOUS |
| There are plenty of opportunities for spending a lot of time. | |
| There are plenty of options and quality places available. | |
| Everything is in one place. | |
| It's the neighborhood with the most facilities. | |
| Art street is a diverse and beautiful place. | |
| Art street is a diverse and beautiful place. | |
| Quick access via public transportation, activities in the cultural center, the presence of crowded social facilities, high diversity, and a heterogeneous distribution of people. | |
| Watching the sunset in an open area is a beautiful experience when the weather is nice. Generally, we can spend time comfortably as there are usually no people causing discomfort around. | SEASIDE |
| Being by the sea and spending quality time there. | |
| I love being by the sea, that's why I love Urla Iskele. | |
| There was a sea, a small place, and people were very friendly. Transportation was easy, I could reach anywhere I wanted with just one bus. | |
| Two areas facing the sea and commercial zones around offering food and shopping. | |
| Watching the sea, catching its scent makes me feel really good, peaceful, and safe. | |
| I love the sea, it brings peace. | |
| Serene, spacious, and friendly place. | |
| It's a lively area by the seaside. There are various activities and plenty of options for places to visit. | SEASIDE |
| It's a lively area by the seaside. There are various activities and plenty of options for places to visit. | |

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| | |
|---|---|
| There's an ice rink suitable for all kinds of activities, including tennis courts. There's also a dance course nearby, and easy access to places for dining or anything I might need. | SEASIDE |
| Beautiful places and close to the beach. | |
| The comfortable shoreline helps clear my mind. | |
| Coastal houses away from the city, a shoreline with various and sufficient cafes and restaurants for enjoyable pastime, yet it's not overly crowded. | |
| The seaside is a peaceful place where I can sit with my family and friends and have a nice chat against a beautiful view. | |
| The seaside area gives me joy and tranquility. | |
| I love walking on the beach. | |
| Walking on the beach. | |
| It's good for socializing near the beach. | |
| It feels nice to calmly watch the sea. | |
| I enjoy being close to nature. | INTEREST WITH NATURE |
| Because it's just a beautiful place. | BEAUTIFUL |
| It fills me with tranquility. | PEACEFULL |
| It's a very peaceful and beautiful place, disconnected from Istanbul yet offering views of the city. | |
| Being by the seaside, in a peaceful area. | |
| Peaceful green areas and a view of the sea. | |
| Peaceful green areas and a view of the sea. | |
| I particularly love the tranquility it offers in the fall; in winter, it becomes very quiet and calm. If it's not cold, I can't leave there during winter months. | |
| Calm, beautiful, peaceful beach evenings. | |
| Clean air, a peaceful environment, freely roaming animals, and open spaces. | |
| Natural beauty and friendly people around. | PEOPLE ARE FRIENDLY |
| People being friendly and the seaside location. | |
| There are calm and affectionate people. | |
| We usually go there with friends and have a great time. | HAVING A GOOD TIME |
| Due to the lively crowd and bustling atmosphere. | CROWDED |
| Not being crowded, feeling safe, and being by the sea. | |
| Vibrant and lively. | JOYFUL |
| Pleasant and safe. | |
| The views are stunning and the places are beautiful. | VIEW |
| The view is stunning and the air is very clean. | |
| Being in my hometown generally feels enjoyable, but seeing the architectural and landscape solutions here, cultural reflections, and families with children out for a walk make me feel peaceful. | |
| Especially in autumn, it's in a great location for cycling and often for watching the sunset. | |

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| | |
|---|---|
| The presence of student hangouts. | STUDENT PLACE |
| Because they are places I frequently visit with people I love and feel comfortable in. | COMFORT |
| Because they are places I frequently visit with people I love and feel comfortable in. | |
| Mountain hiking, the tranquility. | RELAX |
| I enjoy being surrounded by nature. | |
| Feeling free and calm. | |
| Because of the tranquility and the fun within that tranquility. | |
| I find opportunities to socialize with friends there. | SOCIALIZATION |
| It's where I used to work; I love the historical environment. | HISTORICAL ENVIRONMENT |
| It has a retro atmosphere and historical value. | |
| The natural features of the historical bath and the rose garden. | |
| Clean air. | CLEAN AIR |
| Having routes for biking and walking, it being free and easily accessible. | EASY TRANSPORTATION |
| The positive effect of greenery and the sea. | GREEN AREAS |
| Green areas designed for public use and relatively quieter than other places. | |
| There are walking paths, bike lanes, and walking areas. There are trees and grass. I can walk and sit with my friends to chat. I can read books on the grass. | |

# APPENDIX D

# DESCRIPTIVE ANALYSIS FOR TESTING THE HYPOTHESIS

- Young people are more active and have more urban experience than older people and children.

APPENDIX D__Table 1: Average Travel Distance and Gender

| | | Average Travel Distance Estimated (KM) |
|---|---|---|
| AGE | 18-21 | 5342 |
| | 22-25 | 11953 |

- As they get older, they may stay out late at night.
- Men can stay out later than women.

APPENDIX D__Table 2: Number of students who can stay out at night

| | | Number of students who can stay out at night | % |
|---|---|---|---|
| AGE | 18-21 | 23 | 35.9 |
| | 22-25 | 47 | 40.5 |
| GENDER | Male | 22 | 34.4 |
| | Female | 46 | 39.7 |

- People who own cars can travel further.
- Urban students may be familiar with city life, while rural students must adapt to the faster pace and increased stimuli.

APPENDIX D__Table 3: Average Travel Distance and Car Ownership and Coming Cities

| | Average Travel Distance Estimated (KM) | |
|---|---|---|
| | Male | Female |
| Car Ownership | 7.5 | 10.8 |
| No-Car Ownership | 9 | 10.8 |
| Most Crowded cities | 16.7 | 11.3 |
| Other Cities | 8.0 | 11.1 |

# APPENDIX E

# RESEARCH ETHICS COMMITTEE APPROVAL

**İZMİR YÜKSEK TEKNOLOJİ ENSTİTÜSÜ**
**SOSYAL VE BEŞERİ BİLİMLER**
**BİLİMSEL ARAŞTIRMA VE YAYIN ETİK KURULU**

**DEĞERLENDİRME FORMU**

| **Çalışmanın Başlığı :** | |
|---|---|
| Exploring the Urban Experiences of University Students in İzmir using Qualitative GIS (Nitel CBS kullanılarak İzmir'deki Üniversite Öğrencilerinin Kentsel Deneyimlerini Keşfetmek) | |
| **Sorumlu Araştırmacının Adı Soyadı :** | |
| Doç. Dr. Fatma ŞENOL | |
| **Karar Tarihi :** | 07.07.2023 |
| **Karar Numarası :** | 5/1 |

**ETİK KURUL DEĞERLENDİRME SONUCU**

| ✓ **Kabul** |
|---|
| • Başvuru formunda Veri Toplama Süreci için belirtilen başlangıç ve bitiş tarihleri karar tarihi itibariyle geçmişe dönük olduğundan yapılacak araştırma tarihi itibariyle güncellenmesi,<br>• Başvuru formunda 11. Veri Toplanacak Mekânlar sekmesinde yer alan araştırmanın yapılacağı üniversitelerden İzmir Demokrasi Üniversitesi mükerrer olarak yazıldığından düzeltilmesi. |
| ☐ **Düzeltme Gerekli** |
| Düzeltmeler hakkındaki görüş, tavsiye |
| ☐ **Ret** |
| Ret ile ilgili gerekçe, görüş, tavsiye |

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