'Keep on Walking'

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Hogeschool van Amsterdam

Students: Margarita Kokkorou (AM: 3626)
Julia Richardson
Renske Hiemstra

Supervisors: Lea den Broeder,
Tsigga Maria

Table of Contents

Table of Figures

Table of Tables

Αφιέρωση

Αφιερώνω την εργασία μου στην οικογένειά μου που είναι δίπλα μου και με στηρίζει τόσα χρόνια σε όλους τους τομείς της ζωής μου.

Ευχαριστίες

Ευχαριστώ την καθηγήτριά μου Τσίγγα Μαρία για τη βοήθεια και την καθοδήγησή της καθ’ όλη την διάρκεια της εργασίας μου, καθώς και την οικογένειά μου γιατί χωρίς την στήριξη και βοήθεια των οποίων δεν θα είχα καταφέρει να φέρω εις πέρας την εργασία αλλά ούτε και να ολοκληρώσω τις σπουδές μου στην τριτοβάθμια εκπαίδευση.

Summary

Keep on Walking is an internship research group that is focused on the walkability of the elderly people in Osdorpplein Amsterdam, The Netherlands. The research group of three Hogeschool van Amsterdam students was carried out during a four-month period. The three interns all had a very important role to play during the internship, which brought a very positive vibe to the project. They were able to see each other's points of views while performing and carrying out the many different activities, while all voicing their opinions and contributing in a professional manner. The interns researched, interacted and created an audit tool to help understand the safety of elders in Osdorpplein and if the elders are able to live a healthy lifestyle. The research of this internship is being put towards a greater research that is being done by the RIVM. The RIVM is exploring all areas of Amsterdam and working to ameliorate the lives of the elders. With an introduction on audit tools from the RIVM the interns were able to complete their research through exploring different situations in different areas of the world, by interacting with the elders of the area of focus; Osdorpplein, and using maps and photos to compare and evaluate the data. Through this report we will explain in depth how we approached and completed different stages of the internship. We are proud to say that Osdorpplein does not have a lot to change in the community, as the elders are feeling capable and confident in their abilities to be active. To conclude our report we will explain our recommendations and discuss how we feel our research will be beneficial to RIVM and the district council in the future.

Key words

Osdorpplein, walkability, RIVM, elderly, audit tool

Περίληψη

Το *'Συνέχισε να περπατάς'* είναι μία έρευνα που επικεντρώνεται στην ικανότητα βάδισης των ηλικιωμένων κατοίκων της περιοχής Osdorpplein του Άμστερνταμ της Ολλανδίας. Η έρευνα των τριών φοιτητών του Hogeschool van Amsterdam διεξήχθη κατά την διάρκεια μιας περιόδου τεσσάρων μηνών. Οι τρεις ασκούμενοι είχαν όλοι έναν πολύ σημαντικό ρόλο να παίξουν κατά την διάρκεια της έρευνας, ο οποίος έφερε μία πολύ θετική ατμόσφαιρα στο έργο. Ήταν σε θέση να δει ο καθένας τις απόψεις των άλλων κατά την εκτέλεση και διεξαγωγή των πολλών και διαφορετικών δραστηριοτήτων, καθώς όλοι εξέφραζαν τις απόψεις τους και συνέβαλλαν με επαγγελματικό τρόπο. Οι ασκούμενοι ερεύνησαν, αλληλεπίδρασαν και δημιούργησαν ένα εργαλείο ελέγχου για να βοηθήσει στην κατανόηση της ασφάλειας των ηλικιωμένων της περιοχής Osdorpplein και το αν οι ηλικιωμένοι είναι σε θέση να ζήσουν με έναν υγιή τρόπο ζωής. Αυτή η έρευνα είναι μέρος μίας μεγαλύτερης έρευνας που γίνεται από την RIVM. Η RIVM διερευνά όλες τις περιοχές του Άμστερνταμ και εργάζεται με σκοπό να βελτιώσει την ποιότητα ζωής των ηλικιωμένων. Με μία εισαγωγή όσον αφορά τα εργαλεία ελέγχου από την RIVM οι ασκούμενοι ήταν σε θέση να ολοκληρώσουν την έρευνά τους μέσω της διερεύνησης διαφορετικών καταστάσεων στις διάφορες περιοχές του κόσμου και αλληλεπιδρώντας με του ηλικιωμένους στην περιοχή εστίασης, Osdorpplein, και χρησιμοποιώντας χάρτες και φωτογραφίες για να συγκρίνουν και να αξιολογήσουν τα αποτελέσματα. Μέσω αυτής της έκθεσης θα εξηγήσουμε σε βάθος πως προσεγγίσαμε και ολοκληρώσαμε τα διάφορα στάδια της έρευνάς μας. Είμαστε περήφανοι να αναφέρουμε ότι η περιοχή Osdorpplein δεν χρειάζεται να αλλάξει πολλά στην κοινότητα, καθώς οι ηλικιωμένοι αισθάνονται ικανοί και σίγουροι για τις ικανότητές τους να είναι δραστήριοι. Για να ολοκληρώσουμε την έκθεσή μας, θα παραθέσουμε τις συστάσεις μας και θα συζητήσουμε για το πώς πιστεύουμε ότι η έρευνά μας θα είναι επωφελής για την RIVM και το περιφερειακό συμβούλιο στο μέλλον.

Λέξεις Κλειδιά

Osdorpplein, ικανότητα βάδισης, RIVM, ηλικιωμένοι, εργαλείο ελέγχου

THEORITICAL PART

1. PROJECT PROPOSAL

1.1. Introduction and backgrounds

Over the years the evolution of medicine has led to a large increase in the average life expectancy. This fact in conjunction with the decreased number of births, will lead to an increase of the elderly population in the cities compared to the population of children. Also the fact that most people choose to live in cities rather than the countryside makes life in cities more complicated.

Physical environments that are age-friendly can make the difference between independence and dependence for all individuals, but are of particular importance for those growing older. For example, older people who live in an unsafe environment or areas with multiple physical barriers are less likely to get out and therefore more prone to isolation, depression, reduced fitness and increased mobility problems (2). So it's our obligation as a community, to create a friendly environment for the elderly people who have greater difficulty in everyday self-service and need more help, compared to the rest of the resident population, and to fulfill their requirements for a quality life. As stated in the WHO Brasilia Declaration on Ageing in 1996, 'healthy older people are a resource for their families, their communities and the economy' (1). The aim of our project is to detect malfunctions of the urban environment of the elderly and to suggest workable solutions in order these regions to become friendlier for them. Cities should provide the structures and services to encourage and support prosperity and productivity of their citizens. An age-friendly city is a city that encourages active aging by boosting opportunities for social participation, security and maintenance of a healthy living, in order to improve the quality of life of the elderly(1). When older people live in a secure neighborhood, they can take part in social as well as physical activities. The whole community benefits from the participation of older people in volunteer or paid work. The local economy gains from the patronage of the older consumers (1). Providing more age-friendly cities is an essential move in encouraging the well-being as well as the contribution of elderly residents that influences the city's prosperity. (1).

The RIVM has been researching lifestyles of the elderly people in Amsterdam, Netherlands. They are working to increase the safety and security of our elder people in their day to day lives. The institute has worked to create audits and reports representing the elderly people and what their specific needs are and showing what kind of living conditions the population is currently living in. As interns we are researching the Osdorpplein community in Amsterdam Nieuw-West. We will also be creating an audit and a report explaining the results that we find in the coming months. As three international students we are a strong group as we will provide many different outlooks and ideas concerning our research. The subject is new but relative to all of our studies and as a group we are very eager to represent the research that we will complete during this internship. As an organized trio of interns, we will provide the RIVM and the council district with convincing plans for the future.

1.2. Walkability

What is Walkability?

Walkability is a quantitative and qualitative measurement of how inviting or un-inviting an area is to pedestrians. Walking matters more and more to towns and cities as the connection between walking and socially vibrant neighbourhoods is becoming clearer. Built environments that promote and facilitate walking - to stores, work, school and amenities – are better places to live, have higher real estate values, promote healthier lifestyles and have higher levels of social cohesion. (8)

Examining the walkability of a neighbourhood, town or city is an important factor to consider when thinking about making places more welcoming, livable and safe. Areas where lots of people are around, shopping, going to work or school, or just hanging out are considered more desirable living places which promote social connectedness, healthy lifestyles and reduce car dependence and greenhouse gas emissions. (8)

The importance of walkable neighborhood in the field of health

Being able to access different areas of their community is key because it keeps them involved, healthy, active and safe, all at the same time! Non-walkable areas can also be a reason for elder's falls, which can cause very severe injuries to them and problems with their physical health. In contrast to that, walkable neighborhoods offer to the elderly people opportunities to be more physically active, which improve their body and health condition and make them happier and more social as well. Also, being able to access the food markets means that they have the control of the availability of food at their household and the control of their nutritional status. Elderly become vulnerable to malnutrition owing to inappropriate dietary intake, poor economic status and social deprivation. Elderly are known to be easily subjected to inanition and avitaminosis resulting in multiple nutritional deficiencies. Urban slum dwellers, rural poor and those living alone appear to be at a higher risk of poor dietary intake(9).The nutritional status of the elderly is accosiated with their health, because elderly with a good nutritional status are protected from many diseases. so if they have access at the food markets, they can also improve their health condition.

1.3. Osdorpplein

The project was held in the area around Osdorpplein. Osdorpplein is a community situated to the North-West of Amsterdam and is a community that is known to be very multicultural. With an estimated 33, 699 residents that inhabit the community, there are always a lot of people rushing from different places. However, this area of Amsterdam is known for their green spaces and water areas. These outdoor areas are very beneficial to a region that is full of elderly people and families, as it allows and encourages people to spend more time outside and getting physical activity. With a high percentage (the exact percentage is unknown) of people over the age of 75, the amount of green spaces that are safe and compatible with the elders is very good (Pictures 1 and 2)

Picture 1. Green area around Osdorpplein

Picture 2. Green area around Osdorpplein

1.4. Contact

Throughout this project our sponsor will be the National Institute for Health and Environment, also known as the RIVM. Within the RIVM our contact person will be Lea den Broeder. The institute has been working to promote healthy lifestyles to the population of the Netherlands, as well as working at providing environments that are safe and accessible to civilians of all ages.

Within the RIVM, Lea den Broeder will be our main person of contact. Lea den Broeder has been strongly focused on working with the relationship between the environment and the population. She has been working on this area of interest through the Integrated Health policy at the RIVM and the Netherlands School of Public Health.

1.5. Members of Urban Health group

Margarita Kokkorou is 22 years old and has come from Greece to learn about healthy lifestyles as she has been studying nutrition and dietetics. She decided to study her final semester at Hogeschool van Amsterdam, in the minor of health and active lifestyle, to experience the life and the education abroad.

Julia Richardson has come from Canada to broaden her knowledge and education on healthy lifestyles. In Canada her schooling is focused on early education. Throughout the duration of her stay in Amsterdam, she is enthusiastic to learn more about the lifestyle of elder people and what their needs are to live a happy and fulfilled lifestyle.

Renske Hiemstra is 22 years old. She has been studying Nutrition and Dietetics at the Hogeschool van Amsterdam. She is the Dutch student and will be the interpreter for the Dutch language throughout the internship.

As three interns we are responsible for completing the research of this project and displaying it in a report and an audit. It is extremely important that this research is performed, as the RIVM has been working on increasing healthy lifestyles for elderly people all around Amsterdam. The research and report that is completed at the end of this internship will be used to understand and determine if the Osdorp area is in need of an intervention, or what needs to change and stay the same in the area to insure the elders are living a happy life.

1.6. Project Organization

Table 1. Project Group

NAME	BACKGROUND	MAIN BELBIN ROLES	GROUP ROLE	RESPONSIBLE FOR
Julia Richardson julia.richardson@hva.nl	Studies on early Education	Implementer Completer/Finisher	Native English Speaker	Working on the assignments Correcting the English expressions Meeting the deadlines as they are laid down
Renske Hiemstra renske.hiemstra@hva.nl	Studies on Nutrition and Dietetics	Shaper Resource Investigator	Native Dutch Speaker	Working on the assignments Communicating in Dutch when it is necessary Meeting the deadlines as they are laid down
Margarita Kokkorou margarita.kokkorou@hva.nl	Studies on Nutrition and Dietetics	Team Worker Implementer	Come up with new ideas	Working on the assignments Meeting the deadlines as they are laid down

Project Members:

According to the results from Belbin's test, we separated the roles in our team, so that our cooperation to be more effective.

Table 2. The roles in our team

NAME	FUNCTION
Lea den Broeder	Project Supervisor
Julia Richardson	Working Team Organizer
Renske Hiemstra	Working Group Manager
Margarita Kokkorou	Working Team Adviser

1.7. Overall project result

The mission of Urban Health is to get information on the district Osdorpplein with the major goal as linking up this information to healthy aging and the support given to the elder.

This is a sub-project goal of a bigger project of the RIVM Urban Health, a project on elder people and their health needs and health behaviour. There has to be more information about the environment that they live, especially on their exercise and nutrition, to reach a healthier lifestyle.

By the end of July, the desired result of this project is for the elderly population of Osdorpplein to live independently for as long as possible. Therefore, the environment needs to support them with things that they need to be accessible and safe.

Furthermore, we will be finding out what exactly we will need to contribute for them to feel content and safe in their living environment. We will know exactly, because the elderly people, the professionals and the persons from the neighbourhood will be questioned. Also we want to walk with elderly people their route to Osdorpplein.

We will create a report explaining our research results, providing advice and information about future interventions that could take place to ameliorate the living conditions of the elders.

We will create a presentation to prove to the council district about why our research is concrete information that will better people's lifestyles. As well as give our data and information to the GGD and RIVM to use in their future research projects.

1.8. Sponsor

The “National Institute for Health and Environment” is working to promote health in the population and providing an environment that is safe and clean. They are working to enforce these goals through support of the communities and through research. RIVM provides people with the information needed to build and maintain a healthy lifestyle. The institute works on preventing contagious diseases by creating a clean and good quality environment. RIVM annually sends out reports informing the population on health care, nature and the environment, nutrition and diet, public health, and disaster management. The organization has a category of Public Health and Health Services. Within this category they look at healthy and society, health protection and nutrition, prevention and health services. In the center for health and society the researchers work on health promotion, public health, health care and many more important subjects. Throughout this internship we will be assisting in the research and promotion of these important themes.(5)

The Public Health Services of Amsterdam (GGD) have many activities that are used to ensure the safety and good health of the residences in Amsterdam. They even focus on the Nieuw West district, Osdorp. As the environment and traditional routines such as staying up to date on health care change frequently, GGD takes pride in doing their best to stay recent and accessible for all residents of Amsterdam. The Public Health Services of Amsterdam will be a key contributor to our research and knowledge throughout this internship of researching the lives of the elder in the Osdorp district.

1.9. Estimate of the costs and benefits

The cost for this internship will be a maximum of 100 euro. This money will be used if there is an intervention performed and we need to supply that people of interest with complimentary goods to thank them for their time and information. Other than that, the bulk of research will come from provided information that is online, and the interns observing the lives of the elders in the Osdorpplein area.

1.10. Feasibilities

We will mainly focus on the roads most used by the elderly - since it is not possible to change the entire region - depending on their recommendations and preferences, based on the maps they will be given and after our notes and observations on them.

That way we can make recommendations on what needs to be repaired, upgraded or removed based on what is causing the most trouble to the elderly, thus reducing injuries as well as frustration on daily transport.

We must keep in mind that our recommendations should not cause problems for the rest of the residents outside of our target group. There might also be a certain aesthetic in the area that we must do our best to not damage, and even improve wherever that is possible.

Last but not least, we will need to find common ground between the different opinions and needs that we might encounter when we ask the elderly for their help and information.

If we keep all this in mind, we can make this project run as smoothly and effectively as possible.

1.11. Consequences

Our target group is elderly people that are over 75 years of age, who live at the area surrounding Osdorpplein. Our main goal is to improve the life of these people by making the neighbourhood as safe as possible for them to move around during both day and night. We hope to achieve healthier and more satisfying living conditions for them and change their lifestyle for the better, as a result of an improved and safer environment.

2. PROJECT PLAN

2.1. Result

Throughout this internship we are going to be working with elderly people in the Osdorpplein area of the Netherlands. We will be researching their lifestyles and how we can make the community a better place for them to be living. The result of our research will be having a report providing the district council with the status of how positive or negative the community is for elderly people. We will even have a suggestion for the RIVM and council as to an intervention that they could perform in order to have a better understanding of the lifestyles in the area. As this is a project from the RIVM, our final results will be given to them to use for their future work. We will also provide the council with an advised map that we will create throughout the months of the internship. We will ask elders in the community to show us on a map where they walk, and the route that they take most often. We will then observe and ask for the areas during their route that give them the most difficulty. By doing this, it will be easier to know where the areas of concern are, and where the changes should be made as soon as possible to make living in the community easier for the population.
The district councils in Amsterdam Noord and Osdorp were formed so the communities in these areas could have a voice about different matters and would be involved in decision-making process that would take place. As a district council, one of their responsibilities is to be sure that the community stays in good shape. By doing this they are accountable for making sure that roads and walkways are repaired if they have been damaged. This responsibility that they hold is directly related to our research, as we will be communicating with the community members about how difficult or easy they find it to walk around and use transportation. Therefore, at the end of this internship our report, research and audit will provide the district council with information on what needs to be done, or what they are already doing that the community is happy with.
The aim of our project is to detect malfunctions of the urban environment of the elderly and to suggest workable solutions in order these regions to become friendlier for them. Cities must provide the structures and services to support their residents' wellbeing and productivity. An age friendly city is a city that encourages active ageing by optimizing opportunities for health, participation and security in order to enhance quality of life as people age (1). When older people live in a secure neighborhood, they can take part in social as well as physical activities. The local economy profits from the patronage of older adults consumers (1). Making cities more age-friendly is a necessary and logical response to promote the wellbeing and contribution of older urban residents and keep cities thriving (1).

In planning for lifetime neighborhoods, Harding suggests the need to consider (3).

Accessibility of the built environment;

Appropriateness of housing available;

Fostering social capital;

Location and accessibility of services;

Creating aesthetically pleasing public spaces which promote a sense of place and social cohesion;

Planning of services;

Building intergenerational relationships by shared site usage;

Better use of information technology

2.2. Project activities

Throughout the internship and research process we will continuously be observing the people of Osdorp. We will observe the busy areas of the community, where the quiet areas are, and why people neglect certain corners of the community. We will also observe how the roads are for crossing, if the curbs are too high and if they have an indent where walkers and motorized wheelchairs can easily go from the street to the sidewalk. We also will take note of how good the sidewalks are. If they are all cobblestone, how old the cobblestone is and if walkers are capable of easily going over the stones without the risk of falling.

While carefully observing the area, we will be sure to ask members of the area on their opinions, and what they find challenging about traveling around the community either on foot or by bus or tram. We will also ask questions regarding their day-to-day lives about how accessible food is, how safe they feel, and what they would do in case of emergency. We are interested in hearing about how long it takes them to do errands or get to where they need to go because of safety factors. While talking with different members of the community we are also going to ask them to show us the route that they walk regularly by pointing out on a map that we will provide. After conduct this questionnaire with the elders, we will use this data to prove the common areas of the neighbourhood and where the elders are avoiding because of walking conditions or insecurities. While talking to the elders we will offer them to share any accidents that they have had so we can look into how to prevent an accident from happening again.

2.3. Project limits

The boundaries of the project

- Data

The project started on February 17, 2014 and will end on July 20, 2014.

After March 11, the day of the RIVM-meeting, we started with designing the audit tool.

On March 31 we presented the project plan.

April 14th until May 23th we were working on the audit tool in Osdorpplein.

On June 20th we presented our results to the District Council.

- Budget

The cost for this internship will be a maximum of 100 euro. This money will be used if there is an intervention performed and we need to supply that people of interest with complimentary goods to thank them for their time and information.

- Preconditions

All of the project results will be first checked by Irma de Waal, the teacher of project management and personal development, before sending it to Lea den Broeder.

At every meeting with Lea den Broeder, we'll show and evaluate our results so far.

Table 3. Scope of the project

In	Out
Elderly people above 75 years old	People younger than 75 years old
Osdorpplein	The whole area around Osdorpplein
In Osdorpplein the route of elderly	Not all the streets of Osdorppplein
Quality of the streets	Quality of the whole neighbourhood

2.4. Intermediate Results

Our main goal is to make an age friendly environment for the elderly people who live in the area around the Osdorpplein. First of all, we had to decide and write down the subject of our research and the reason why we chose it. We had to choose what we wanted to focus on. That was our project proposal. In the proposal we introduced ourselves, our sponsor, we explained why we chose to focus on the prevention of falling for the elderly and what consequences our project will have for them. We had to prepare our proposal for the 19th of March. That was the first step, before starting our research.

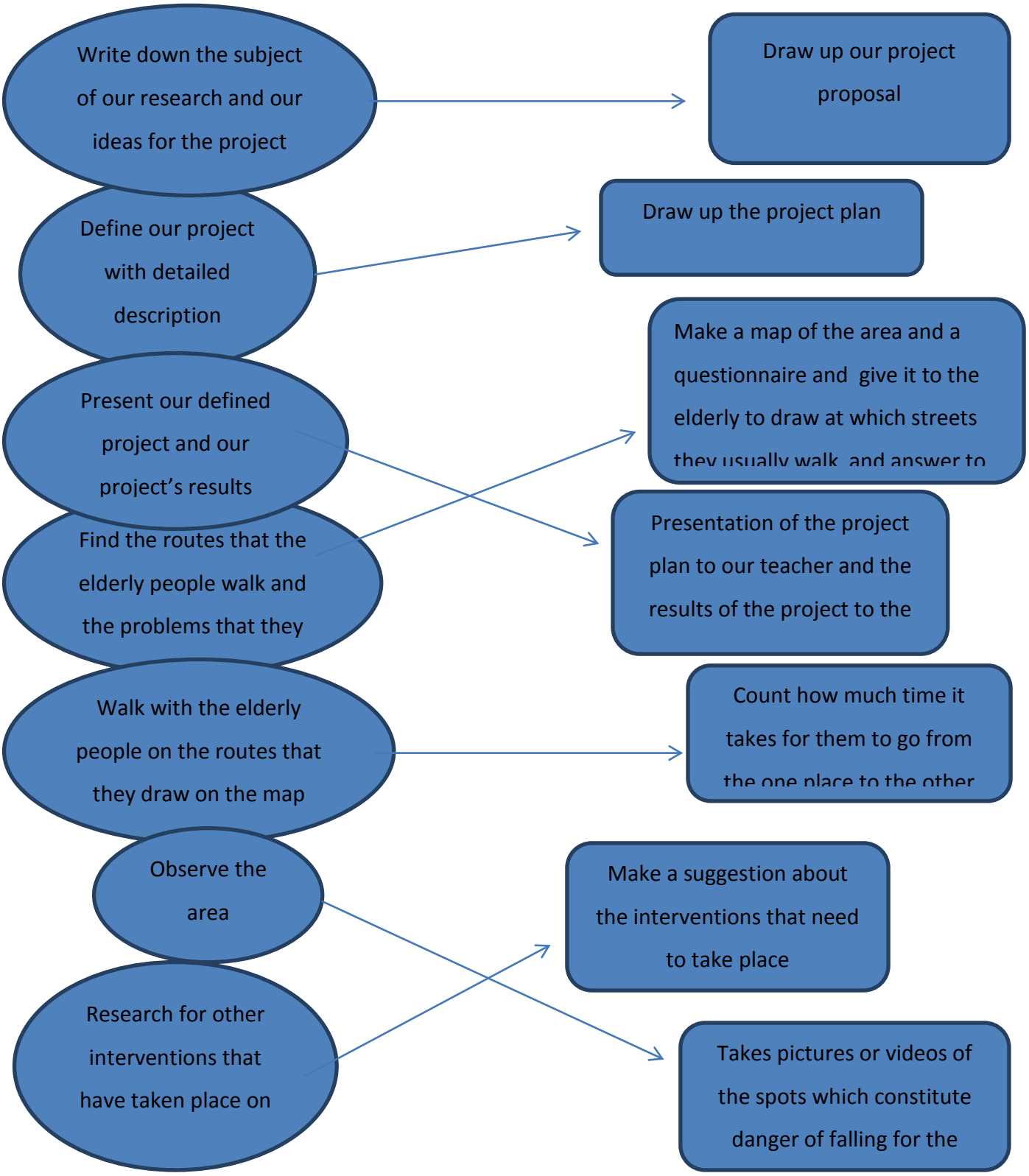
To start our research of the neighborhood, we need to focus on the area that the elderly usually walk. That is the reason why we will make a map of the whole neighborhood, and give it to the elder people to drawn on it the routes which they mostly follow. Then, we will collect the streets that the majority of these people walk to start our observation. We will ask the elderly to walk with us on these routes so that we can count how much time it takes them to go from the one place to the other. At the same time they will point out the spots on the streets that make it dangerous for them to walk and we will take pictures or videos of them. We will also prepare a questionnaire for them to answer, with questions about the problems that they are dealing with every day and what they would like to change at area that they are living in. Later, we will walk again, alone this time, on the same routes and start observing the surrounding area very carefully. That is very important to do, because we will keep a record of what the elderly think that is important to be replaced and what we have found at our observation.

In the meanwhile, we will make sure that we are aware of other interventions that have already taken place at this area, so that we can see, or not, their results. Thus, it will be easier to suggest to the District Council which interventions are important to take place in the area and why. The pictures and the videos are going to be our evidence.

It is very important to work according to a plan, that is why a project plan plays a crucial role in our project and it is necessary to be drawn up. This project plan is an activity for our internship. As a group we research, brainstorm and put together our ideas in an official format to present. It is a representation of our work thus far, and a plan of what we are going to accomplish within the months to come. With the plan we will define our project by giving detailed description of it.

After the plan is finished we will present it to our teacher to give us feedback to continue our research. The evaluation will be performed after our presentation of our project plan. The evaluation will be focused on our knowledge of the subject as well as what we are going to perform throughout the internship. Evaluation will also be done at the end of the internship on our research provided. The deadline of the project plan in at 26th of March and the presentation day is the 31th of March.

With all of the data and answers that we gather and observe, we will write up a report. This report will give details about our methods of observation and when answers that were found. Therefore this report will be useful for the RIVM and district council so they know the types of interventions to perform and where changes needed to be made within the community. The date of the project's presentation is estimated at the 20th of June.



Form 1. Intermediate Results

2.5. Quality control

There are several intermediate products, but one big end product. Therefore, every product has to be good quality. Hogeschool van Amsterdam, RIVM and ourselves are wanting the best quality of work. So there will be check-ins, feedback sessions and promises made.

- Check-in

Irma de Waal will first check the project plan before sending it to Lea den Broeder.

Marije Baart de la Faille will first check the audit tool – Deutekom (Research teacher) then sent to Lea den Broeder (contact RIVM) and then sent to Jeroen Devilee (Reseacher RIVM)

- Feedback sessions

The project proposal feedback moment was on 24th march by Irma de Waal and Lea den Broeder.

The project plan feedback moment is on 26th March by Irma de Waal and on 28th March by Lea den Broeder.

The project plan presentation feedback moment will be on 31th May, directly after the presentation.

In week 16 there will be a feedback moment of our result so far by Lea den Broeder.

- Promises

All the results will be created by elderly people' opinions, perhaps we'll ask their supervisor for an extensive explanation. All the others findings will be photographed or will be on marked on the map.

There will be work by Microsoft Word, Excell, Powerpoint and Project.

All the products will be sent by email, so there will be always a digital version of it.

The teacher of the Hogeschool van Amsterdam will first check all the products, before sending it to Lea den Broeder by the RIVM.

2.6. Schedule

To make our collaboration more effective, at the begging of our project, we draw up a team agreement. On this agreement we mentioned our tasks and responsibilities so that is clear to every member of the team how we are going to work from now on to achieve our goals. This team agreement represents our expectations for working efficiently so we can cover all of the competencies represented in this minor.

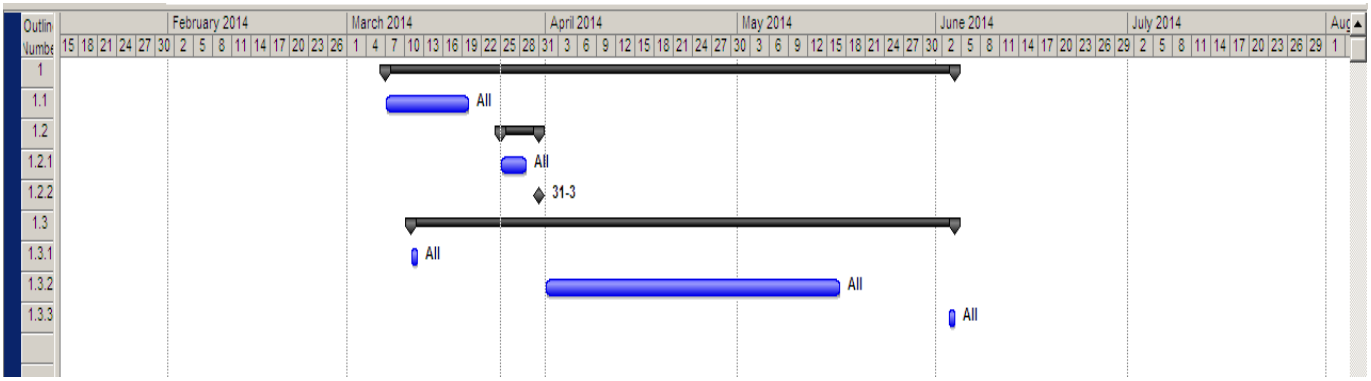
Every Monday and Wednesday we are at the Hogeschool van Amsterdam and every Tuesday and Thursday we are working on our research. The days that we are working on our research we meet at the Osdropplein to observe the area and to talk with the elderly about the problems that they are facing. After the observation is over, we work separately on our computers on our assignments and on the points that we have found at our observation and the conversation with the elderly. The main communication between the project members is via e-mails, telephones, social media and weekly meeting.

When it is necessary, we meet on Mondays and Wednesdays too to discuss about the assignments and how we are going to separate the tasks which we have undertaken. We also meet on Fridays, when more research is needed to be done.

For every new ideas and for making sure that we are doing our project properly, we are presenting our ideas and work to our supervisor, Lea den Broeder, who advises us how to continue with our research.

Our main goal is to to improve the life of the elder people who live at the Osdorpplein, by making the neighbourhood as safe as possible for them to move around during both day and night. To achieve that, we have to convince the District Council that there is a necessity for the changes which we will suggest to take place in the area at our presentation of the project's results at the first week of June.

Outline Number	Task Name	Duration	Start	Finish	Predec	Resource Names
1	**1. Project**	**63 days?**	**Fri 7-3-14**	**Tue 3-6-14**		**All**
1.1	Project Proposal	5 days?	Fri 7-3-14	Wed 19-3-14		All
1.2	**Project Plan for Irma**	**4 days**	**Tue 25-3-14**	**Mon 31-3-14**		**All**
1.2.1	Project Plan due for Lea	3 days	Tue 25-3-14	Fri 28-3-14		All
1.2.2	Presentation of Project Plan	0 days	Mon 31-3-14	Mon 31-3-14		All
1.3	**Internship Audit**	**61 days?**	**Tue 11-3-14**	**Tue 3-6-14**		**All**
1.3.1	Development of audit tool	1 day?	Tue 11-3-14	Tue 11-3-14		All
1.3.2	Application of audit tool	21 days?	Tue 1-4-14	Fri 16-5-14		All
1.3.3	Presentation of results	1 day	Tue 3-6-14	Tue 3-6-14		All



Experimental Part

1. Research

Our determinant aspects of the community are the streets, the visibility, the residential density, land use mix diversity and access, street connectivity, infrastructure and safety for walking and cycling, aesthetics, traffic safety and safety from crime.

Our target group is elder people between ages of 60- 79. During our interview process we only performed the questionnaire with elders who are able to walk without an aide or who are physically or mentally handicapped. There are several residences for elderly people as well as community centers where they are able to gather and enjoy each other's company. During this internship regularly contacted Cordaan, a nursing home that is almost in the middle of Osdorpplein and is also used as a social area that the surrounding elderly community can gather at. The accessibility of the community centers and the other facilities is very important that is why we took into consideration how convenient stores are, if everything is within a decent distance, if the elderly are able to access Cordaan easily where they can be social and ask for help from others if they need. One of our goals was to make sure that the elderly people are motivated to be social, independent and healthy. Living in the community allows them to access necessary things such as supermarkets and doctors etc. as well as to be more physically active and meet with other people.

Our goal is to do research on the neighborhood around Osdorpplein about the walkability of this area. To do that we needed to interview with some elderly people to find out how they see their neighborhood and what are the problems they are dealing with walking around. We then walked around the neighborhood and the streets that the elderly were walking the most to observe the positive and negative points for walking. We also took photos of our observation.

Picture 3. Cordaan community center

2. Method

2.1. Introduction

Throughout the procedure of the research we performed multiple activities. We conducted a questionnaire with elders at the Cordaan center and asked them to show us on a map the route they walk and take the most frequently as well as areas that they avoid. The strategy to do a map and questionnaire within the community is because it is a realistic way of researching the walkability of the neighborhood as we have to communicate with the elders in the area. Having communication with the elders allows us to have real answers and learn about the issues that they are faced with during their day-to-day lives.

During the internship there were key steps that we had to take in order to reach our quality proof and information. At the beginning of the internship we focused on researching what had currently been going on in the Osdorpplein area and what the living situations were like. We also looked into different areas of the world such as the United States of America and Canada and what they were doing to ameliorate the lives of the elder. After looking into different ideas we decided to focus our research and intervention on the walkability of the elders. Then we created our project proposal. We presented our proposal to our supervisor explaining what and how we were going to conduct our research. Our supervisor approved our idea, so moving forward we created a project plan explaining in detail what we were going to do, how we were going to do it, the cost of our research as well our goals and roles as a team. On March 11, 2014 we had a wonderful opportunity to attend training at the RIVM regarding on how to complete an audit tool with the research we would find in the upcoming months. One of the main points of our internship was when we would actually interact with the elders in the community. We talked to a three ladies while we were still trying to finalize what we were going to focus on. Having these first discussions helped up realize what was the most important factor to focus on and what exactly we should we asking others.

We have monitored the area of Osdorpplein over the past few months by walking around taking notes of positive and negative aspects as well as taking photographs. These photographs help us measure the difference in seasons from late winter to early summer. The questionnaire was a perfect way for us to evaluate the area for the elders. We were able to compare different areas to see what is an issue and what the elders are happy with. Analyzing the different answers that the elders gave us helped to prove that the Osdorpplein is definitely moving in the right direction when it comes to safety of the community members and the walkability of elders in the area. We were also able to analyze and compare our results with results that we found during our first

research stage of looking into other areas around the world and what they are doing to improve their communities.

Picture 4. Elderly couple siting on a bench next to the lake on Meer en Vaart street.

Here is a new community square in the heart of Osdorpplein that is only a two minute walk from the community center Cordaan. In this area everything is very flat and easy to walk through. The stones are all-new and have recently been laid. It is easy for the elders who have walking aides to push through this square. There are also a lot of benches where they can take a sit to rest or to socialize with others. The area is very open with very few dark corners. There are multiple gardens that make the area visually appealing. This photo is taken on March13,2014.

Picture 5. New community square in the heart of Osdorpplein

2.2. Procedure

Participants were recruited from the Cordaan centre on the Pieter Calandlaan area of Osdorpplein. They were there for voluntary day care from 9:00 till 13:00. At that moment there were 35 elderly over 70 years old, 25 of whom were physical active. All participants were living in the area Osdorpplein. During an interview the participants gave answers on the questions from the questionnaire and on the map-questions.

2.3. Measuring

Neighborhood Environment Walkability Scale

The Neighborhood Environment Walkability Scale (NEWS) was adapted to assess neighborhood environment characteristics relevant to the Netherlands. The adaptation process was similar to that utilized for the European physical activity neighborhood environment scale and the Assessing Levels of Physical Activity (ALPHA) questionnaire in Europe. (3)

The NEWS-A, see appendix 1, is an abbreviated version of the Neighborhood Environment Walkability Scale (NEWS) and provides also an environment scale evaluation. The abbreviated version was created in an attempt to provide more succinct and empirically derived measure of various aspects of the built environment we purport to be related to walking.

The abbreviated version captures measures of respondent perceptions of their neighbourhood environment using a five- and four-point scale. The adapted NEWS survey consists of 53 items that assessed the following perceived environmental characteristics: a) residential density (6 items); b) proximity to non-residential land uses (land use mix - diversity) (22 items); ease of access to non-residential uses (land use mix - access) (3 items); street connectivity (2 items); infrastructure and safety for walking and cycling (6 items); aesthetics (4-items); traffic safety (3 items) and safety from crime (3 items). Five other items were analysed as single items: parking near local shops is difficult; streets in the neighborhood are hilly; streets in the neighborhood do not have many cul-de-sacs; there are many canyons/hillsides in the neighborhood that limit number of routes; I can see and speak to other people while walking in the neighborhood.

From this data standard measures are generated to describe residential density, the diversity of land use, facility access, street connectivity, walking and cycling facilities, the aesthetics of the environment, pedestrian safety, and crime safety.

Factors/scales gauging presence of diversity of destinations, residential density, walking infrastructure, aesthetics, traffic safety, and crime were positively related to walking for transport. Aesthetics, mixed destinations, and residential density were associated with walking for recreation. (4)

Not all participants spoke English, so we used also a Dutch translated version, see appendix 2.

2.4. Map

See appendix 3 for the map of Osdorpplein area that was used for the audit tool. Thereby the participants told were they are now living, where they used to live, their normal route to the Cordaan centre and main route to the facilities (Picture 6). Finally the participants mentioned which routes they avoid at Osdorpplein (Picture 7).

2.5. Scoring

The multi-level confirmatory factor analysis allowed for the establishment of individual-level subscales and blockgroup level subscales. Scoring in the appendix 4 refers to the individual-level subscale scoring (Table 4).

3. Results

3.1. Questionnaire

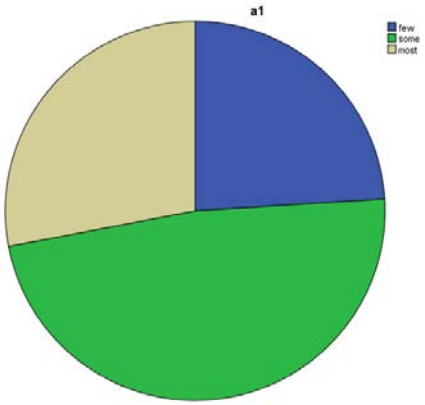
A. Types of residences in your neighborhood

Table 4. Table with the percentages of the responses of a1 variable

a1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	few	6	24,0	24,0	24,0
	some	12	48,0	48,0	72,0
	most	7	28,0	28,0	100,0
	Total	25	100,0	100,0	

Graphic 1. Pie chart with the percentage distribution of the responses of a1 variable



Graphic 2. Histogram with the frequencies of the responses of a1 variable

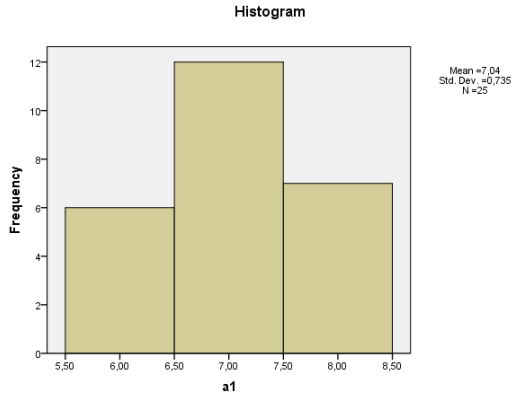
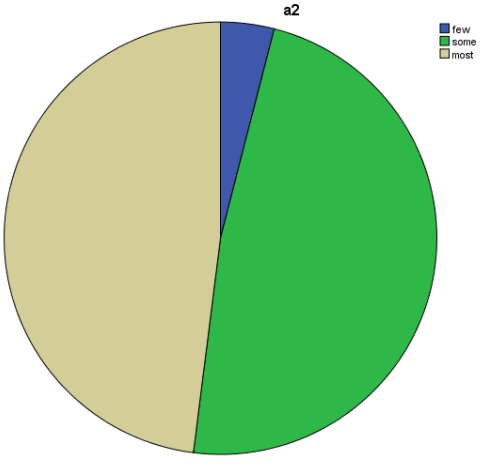


Table 5. Table with the percentages of the responses of a2 variable

a2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	few	1	4,0	4,0	4,0
	some	12	48,0	48,0	52,0
	most	12	48,0	48,0	100,0
	Total	25	100,0	100,0	

Graphic 3. Pie chart with the percentage distribution of the responses of a2 variable



Graphic 4. Histogram with the frequencies of the responses of a2 variable

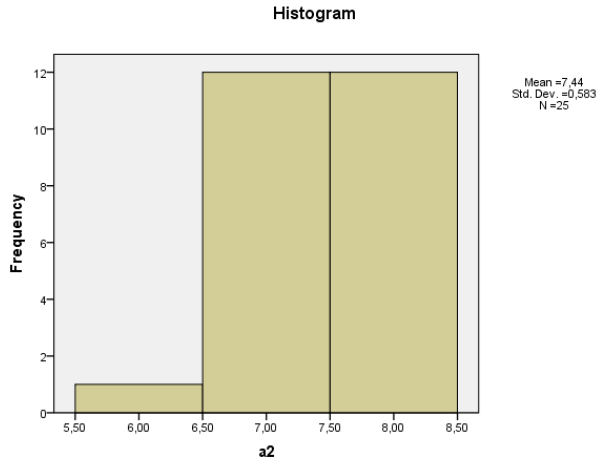
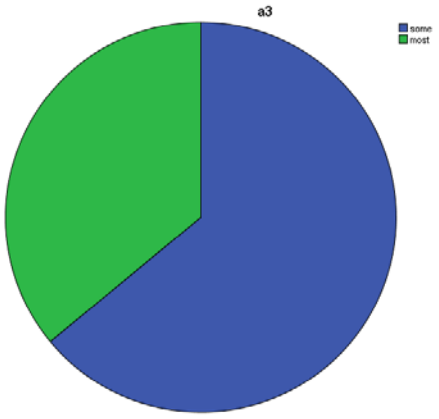


Table 6. Table with the percentages of the responses of a3 variable

a3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	some	16	64,0	64,0	64,0
	most	9	36,0	36,0	100,0
	Total	25	100,0	100,0	

Graphic 5. Pie chart with the percentage distribution of the responses of a3 variable



Graphic 6. Histogram with the frequencies of the responses of a3 variable

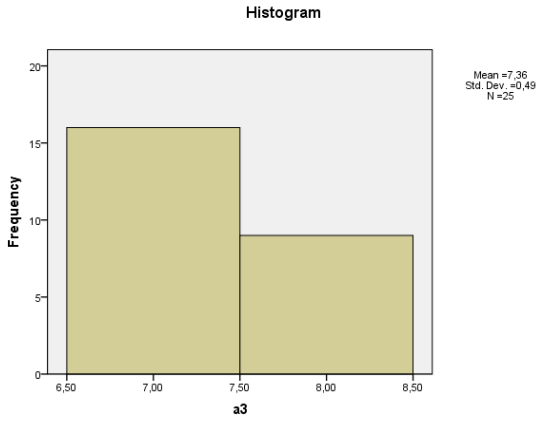
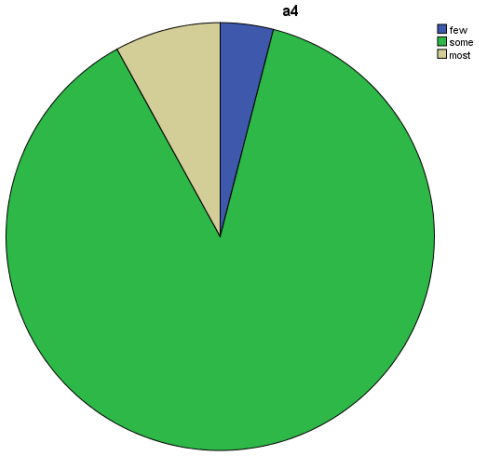


Table 7. Table with the percentages of the responses of a4 variable

a4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	few	1	4,0	4,0	4,0
	some	22	88,0	88,0	92,0
	most	2	8,0	8,0	100,0
	Total	25	100,0	100,0	

Graphic 7. Pie chart with the percentage distribution of the responses of a4 variable



Graphic 8. Histogram with the frequencies of the responses of a4 variable

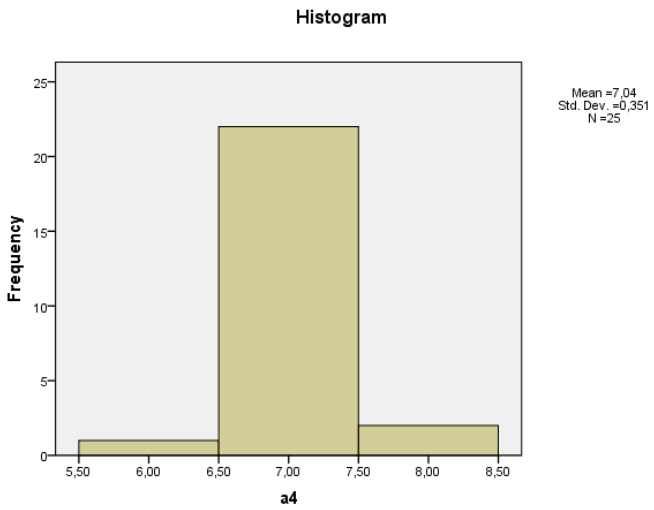
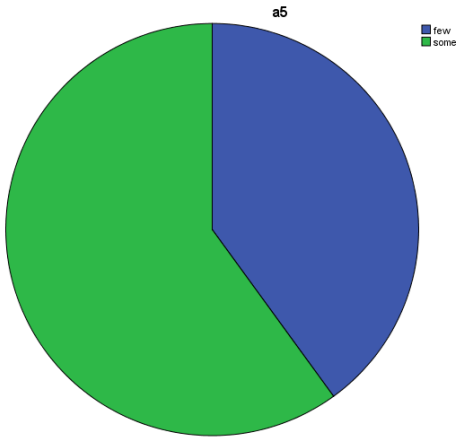


Table 8. Table with the percentages of the responses of a5 variable

a5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	few	10	40,0	40,0	40,0
	some	15	60,0	60,0	100,0
	Total	25	100,0	100,0	

Graphic 9. Pie chart with the percentage distribution of the responses of a5 variable



Graphic 10. Histogram with the frequencies of the responses of a5 variable

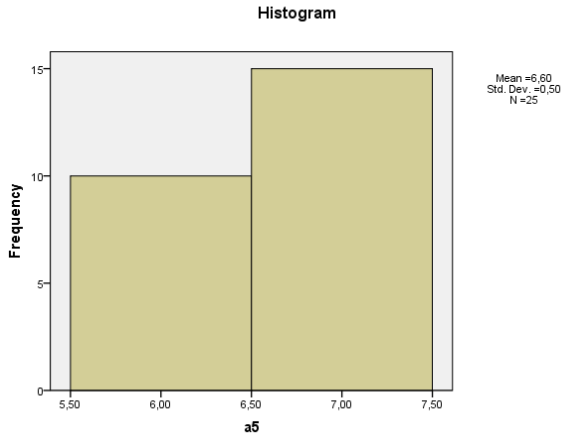
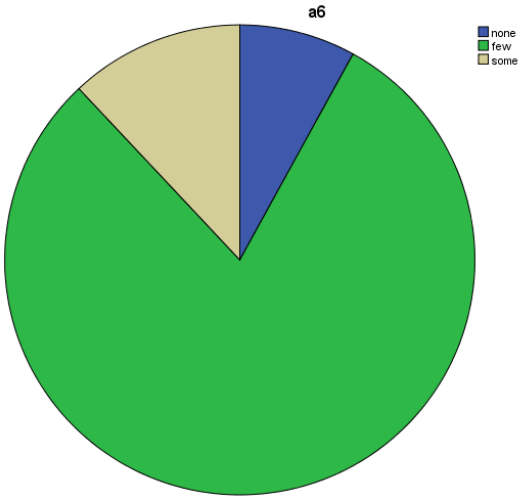


Table 9. Table with the percentages of the responses of a6 variable

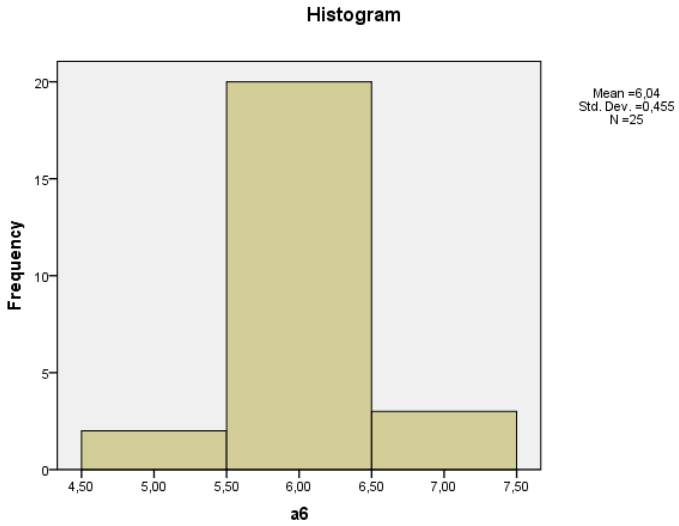
a6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	none	2	8,0	8,0	8,0
	few	20	80,0	80,0	88,0
	some	3	12,0	12,0	100,0
	Total	25	100,0	100,0	

Graphic 11. Pie chart with the percentage distribution of the responses of a6 variable



Graphic 12. Histogram with the frequencies of the responses of a6 variable



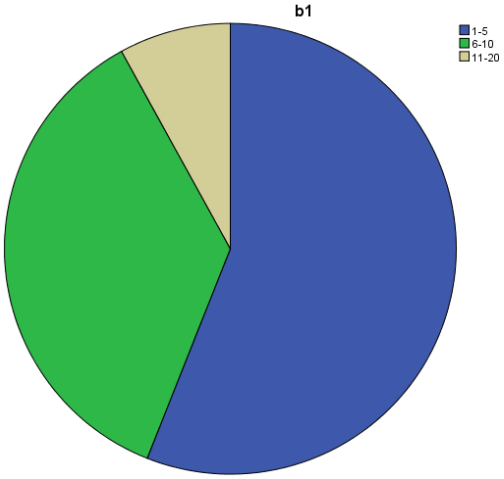
A. *Stores, facilities, and other things in your neighborhood*

Table 10. Table with the percentages of the responses of b1 variable

b1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	14	56,0	56,0	56,0
	6-10	9	36,0	36,0	92,0
	11-20	2	8,0	8,0	100,0
	Total	25	100,0	100,0	

Graphic 13. Pie chart with the percentage distribution of the responses of b1 variable



Graphic 14. Histogram with the frequencies of the responses of b1 variable

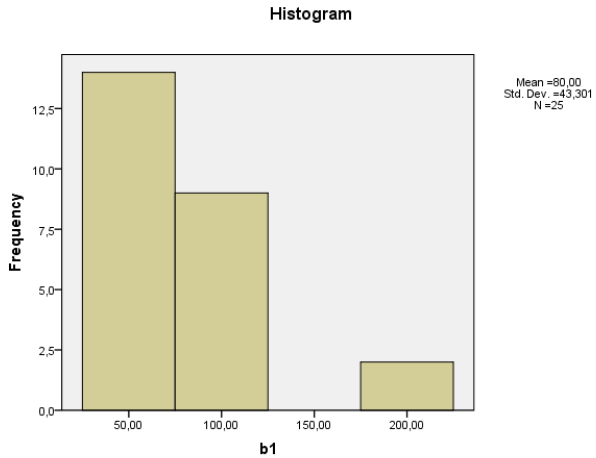
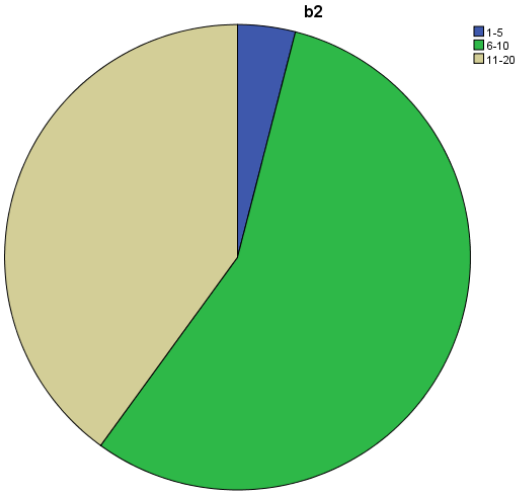


Table 11. Table with the percentages of the responses of b2 variable

b2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	1	4,0	4,0	4,0
	6-10	14	56,0	56,0	60,0
	11-20	10	40,0	40,0	100,0
	Total	25	100,0	100,0	

Graphic 15. Pie chart with the percentage distribution of the responses of b2 variable



Graphic 16. Histogram with the frequencies of the responses of b2 variable

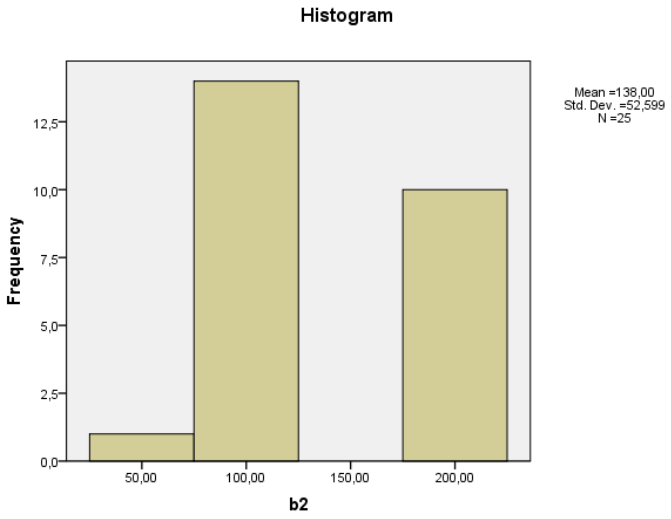
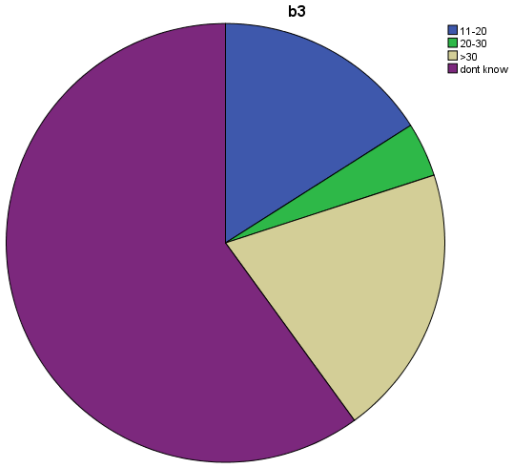


Table 12. Table with the percentages of the responses of b2 variable

b3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11-20	4	16,0	16,0	16,0
	20-30	1	4,0	4,0	20,0
	>30	5	20,0	20,0	40,0
	dont know	15	60,0	60,0	100,0
	Total	25	100,0	100,0	

Graphic 17. Pie chart with the percentage distribution of the responses of b3 variable



Graphic 18. Histogram with the frequencies of the responses of b3 variable

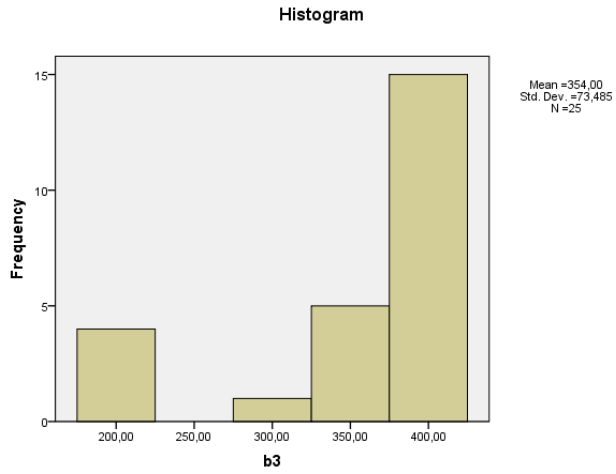
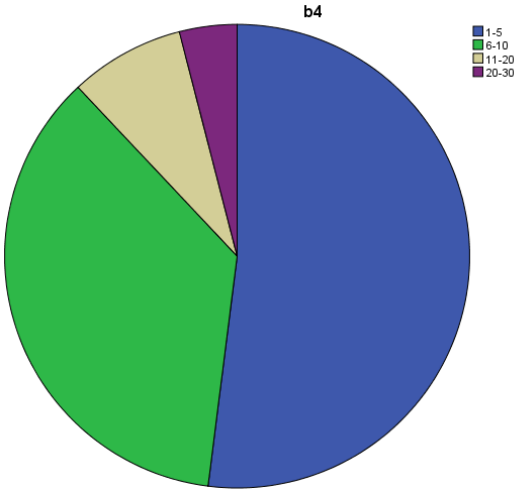


Table 13. Table with the percentages of the responses of b4 variable

b4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	13	52,0	52,0	52,0
	6-10	9	36,0	36,0	88,0
	11-20	2	8,0	8,0	96,0
	20-30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 19. Pie chart with the percentage distribution of the responses of b4 variable



Graphic 20. Histogram with the frequencies of the responses of b4 variable

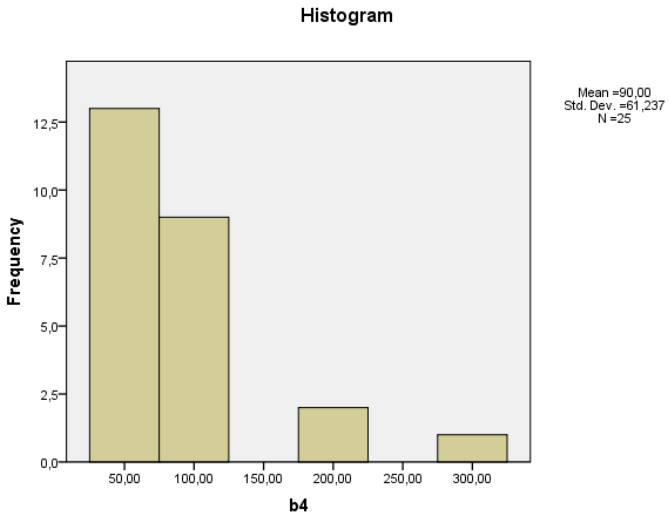
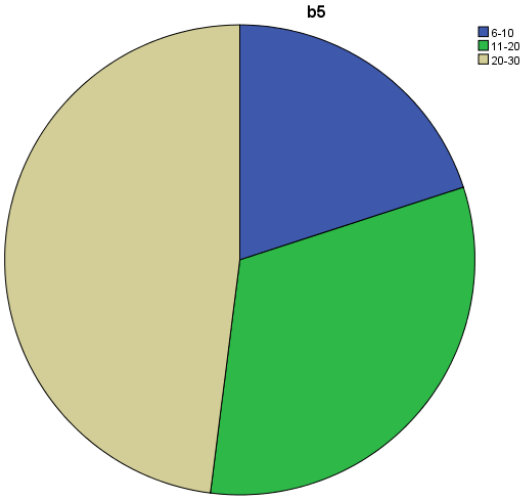


Table 14. Table with the percentages of the responses of b5 variable

b5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	5	20,0	20,0	20,0
	11-20	8	32,0	32,0	52,0
	20-30	12	48,0	48,0	100,0
	Total	25	100,0	100,0	

Graphic 21. Pie chart with the percentage distribution of the responses of b5 variable



Graphic 22. Histogram with the frequencies of the responses of b5 variable

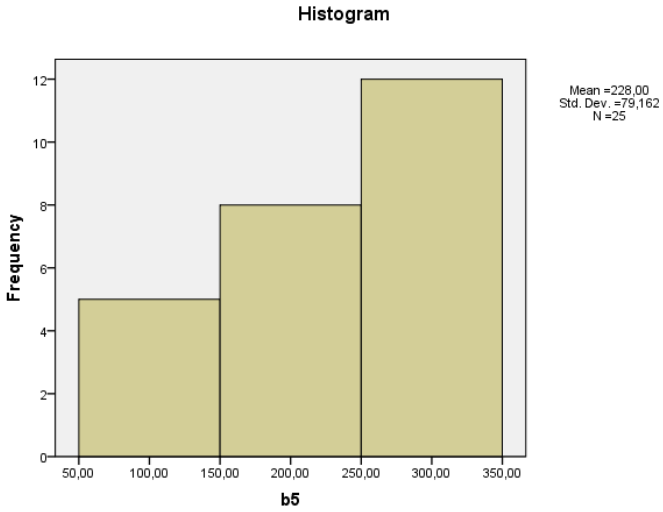
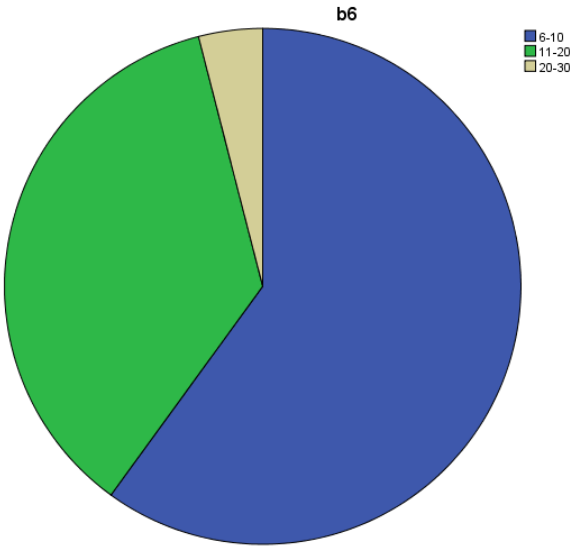


Table 15. Table with the percentages of the responses of b6 variable

b6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	15	60,0	60,0	60,0
	11-20	9	36,0	36,0	96,0
	20-30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 23. Pie chart with the percentage distribution of the responses of b6 variable



Graphic 24. Histogram with the frequencies of the responses of b6 variable

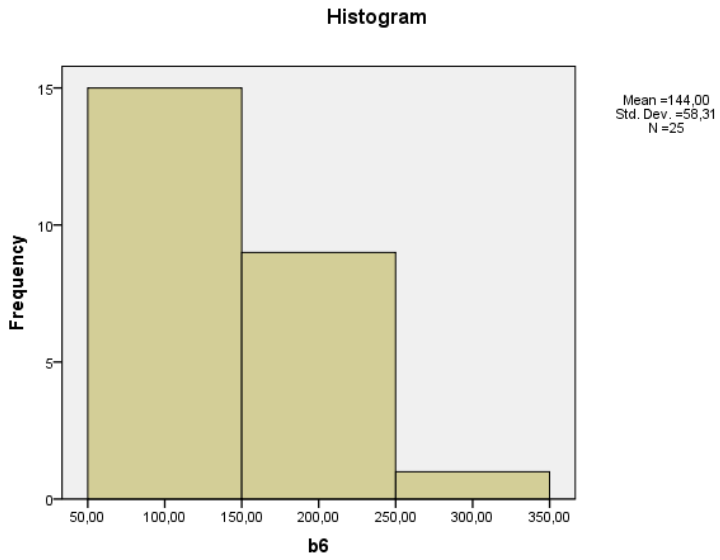
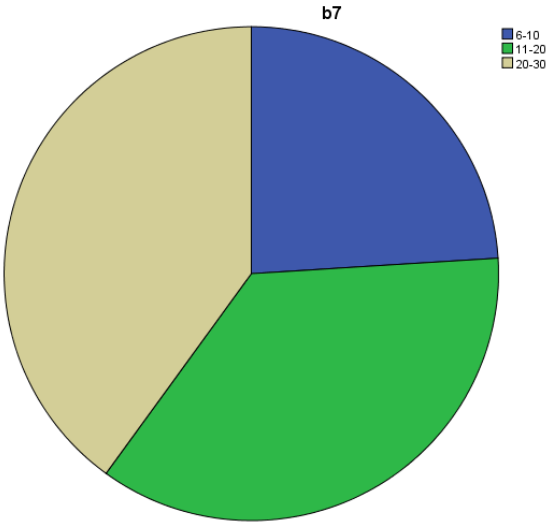


Table 16. Table with the percentages of the responses of b7 variable

b7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	6	24,0	24,0	24,0
	11-20	9	36,0	36,0	60,0
	20-30	10	40,0	40,0	100,0
	Total	25	100,0	100,0	

Graphic 25. Pie chart with the percentage distribution of the responses of b7 variable



Graphic 26. Histogram with the frequencies of the responses of b7 variable

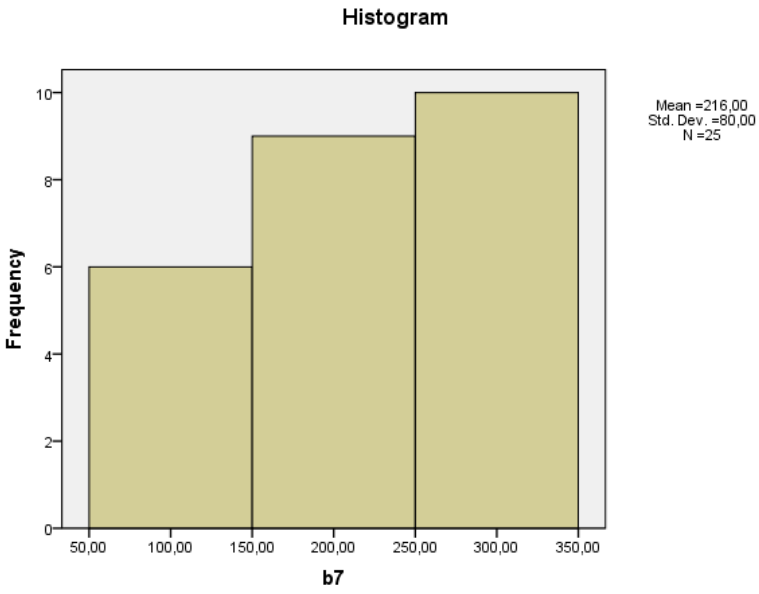
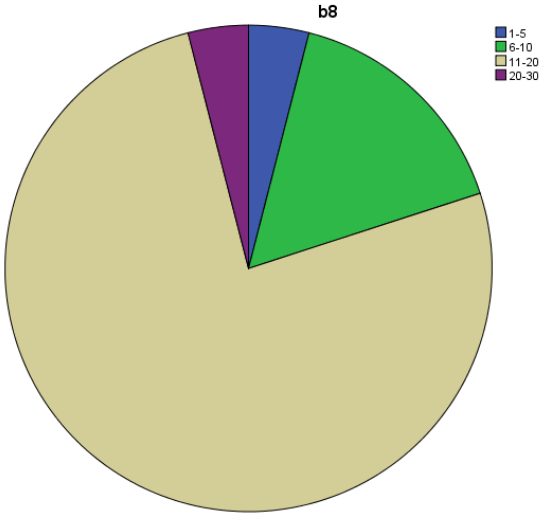


Table 17. Table with the percentages of the responses of b8 variable

b8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	1	4,0	4,0	4,0
	6-10	4	16,0	16,0	20,0
	11-20	19	76,0	76,0	96,0
	20-30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 27. Pie chart with the percentage distribution of the responses of b8 variable



Graphic 28. Histogram with the frequencies of the responses of b8 variable

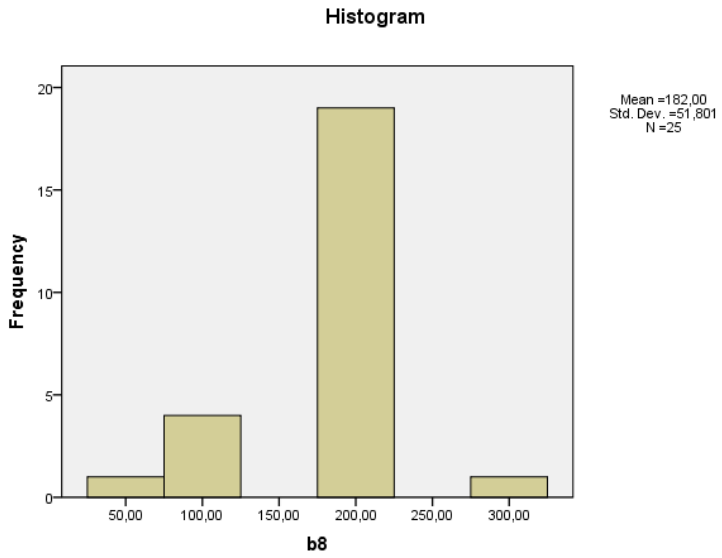
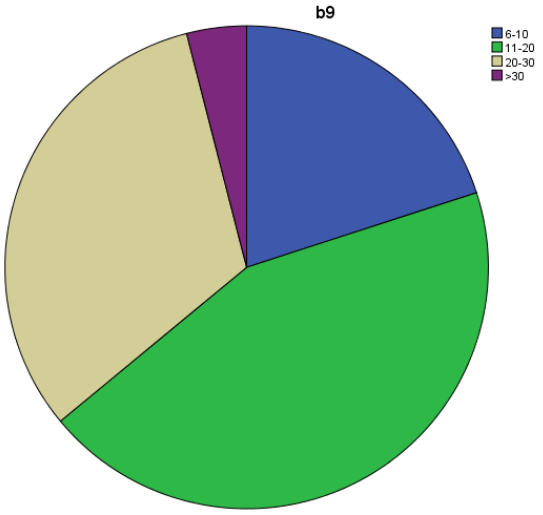


Table 18. Table with the percentages of the responses of b9 variable

b9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	5	20,0	20,0	20,0
	11-20	11	44,0	44,0	64,0
	20-30	8	32,0	32,0	96,0
	>30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 29. Pie chart with the percentage distribution of the responses of b9 variable



Graphic 30. Histogram with the frequencies of the responses of b9 variable

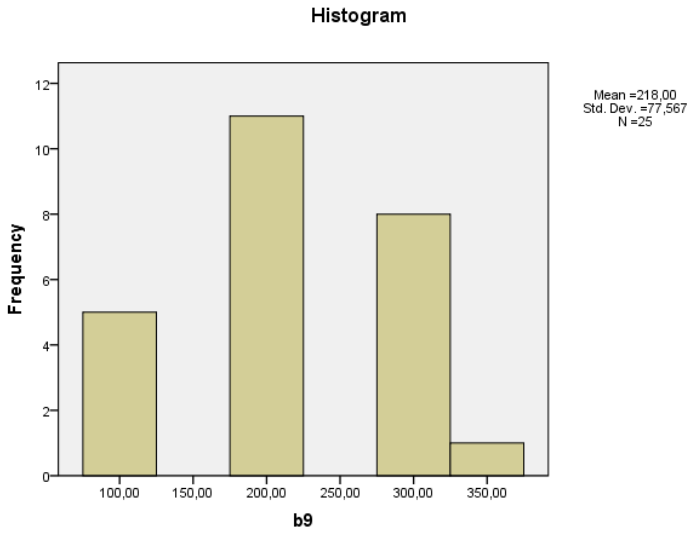
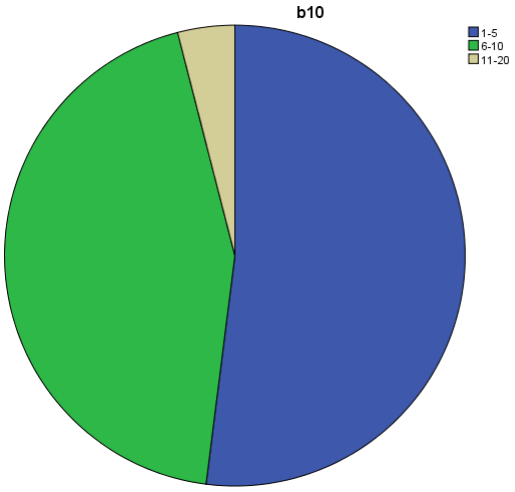


Table 19. Table with the percentages of the responses of b10 variable

b10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	13	52,0	52,0	52,0
	6-10	11	44,0	44,0	96,0
	11-20	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 31. Pie chart with the percentage distribution of the responses of b10 variable



Graphic 32. Histogram with the frequencies of the responses of b10 variable

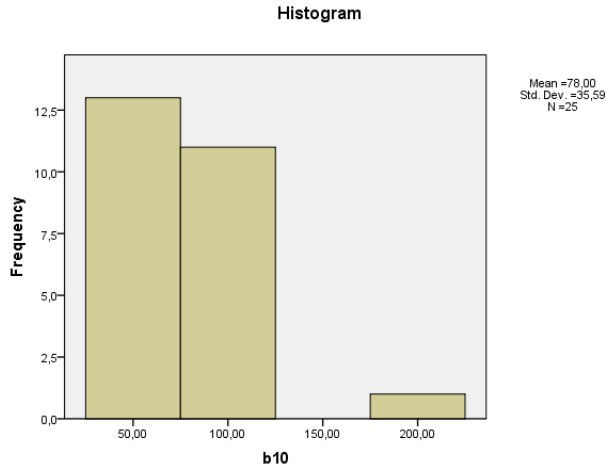
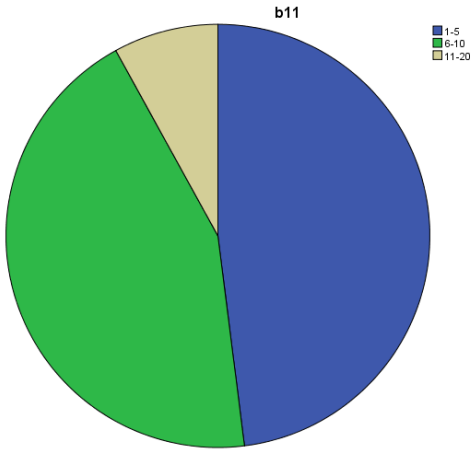


Table 20. Table with the percentages of the responses of b11 variable

b11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	12	48,0	48,0	48,0
	6-10	11	44,0	44,0	92,0
	11-20	2	8,0	8,0	100,0
	Total	25	100,0	100,0	

Graphic 33. Pie chart with the percentage distribution of the responses of b11 variable



Graphic 34. Histogram with the frequencies of the responses of b11 variable

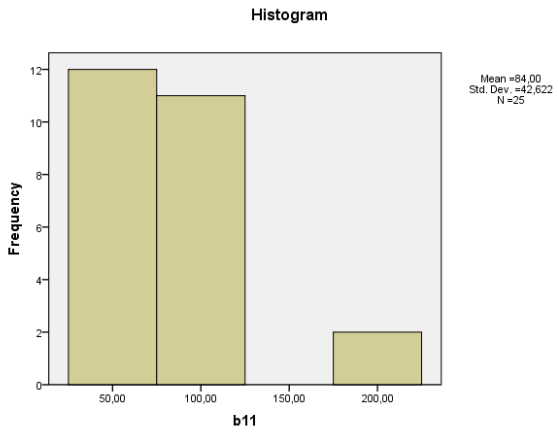
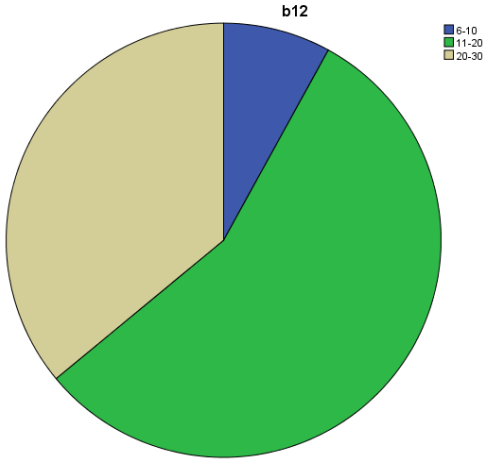


Table 21 Table with the percentages of the responses of b12 variable

b12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	2	8,0	8,0	8,0
	11-20	14	56,0	56,0	64,0
	20-30	9	36,0	36,0	100,0
	Total	25	100,0	100,0	

Graphic 35. Pie chart with the percentage distribution of the responses of b12 variable



Graphic 36. Histogram with the frequencies of the responses of b12 variable

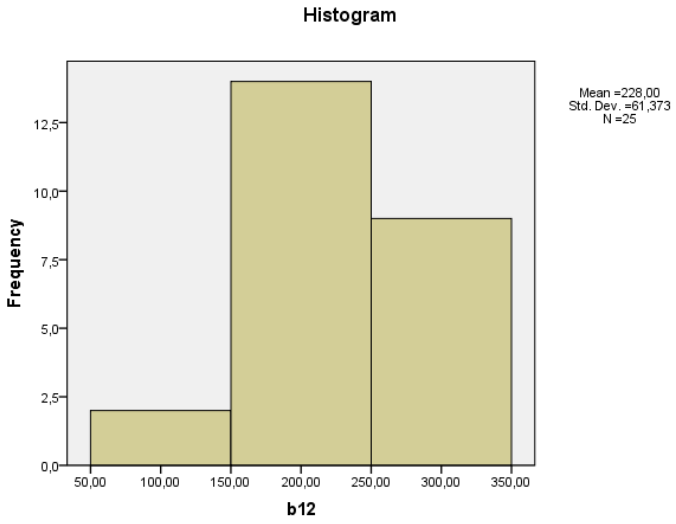
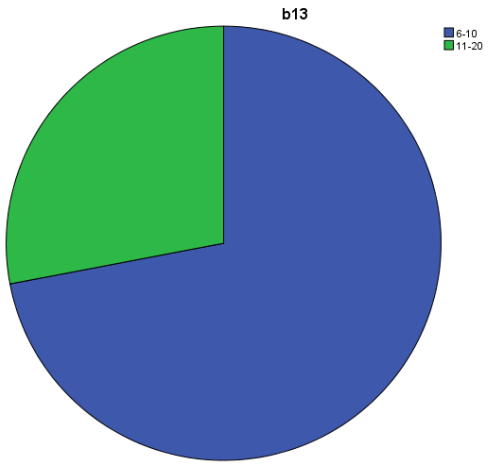


Table 22. Table with the percentages of the responses of b13 variable

b13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	18	72,0	72,0	72,0
	11-20	7	28,0	28,0	100,0
	Total	25	100,0	100,0	

Graphic 37. Pie chart with the percentage distribution of the responses of b13 variable



Graphic 38. Histogram with the frequencies of the responses of b13 variable

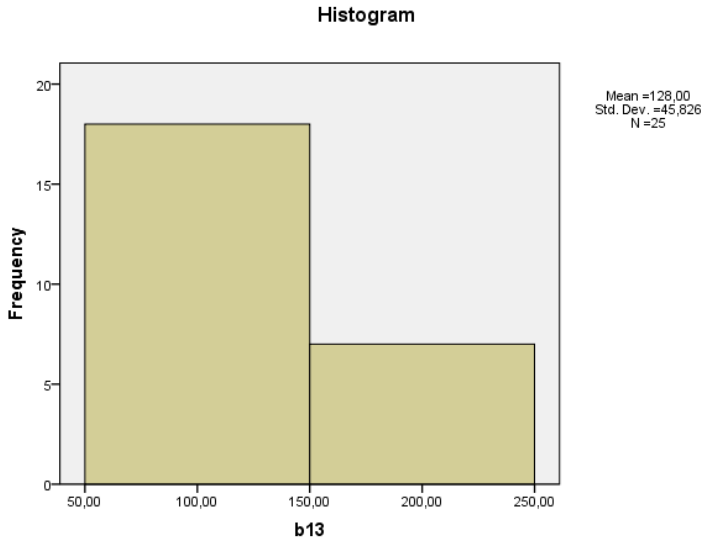
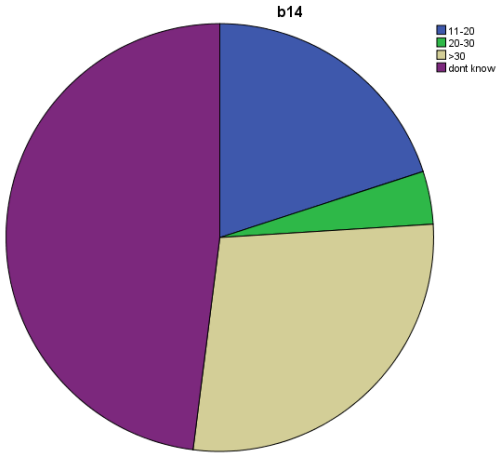


Table 23. Table with the percentages of the responses of b14 variable

b14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11-20	5	20,0	20,0	20,0
	20-30	1	4,0	4,0	24,0
	>30	7	28,0	28,0	52,0
	dont know	12	48,0	48,0	100,0
	Total	25	100,0	100,0	

Graphic 39. Pie chart with the percentage distribution of the responses of b14 variable



Graphic 40. Histogram with the frequencies of the responses of b14 variable

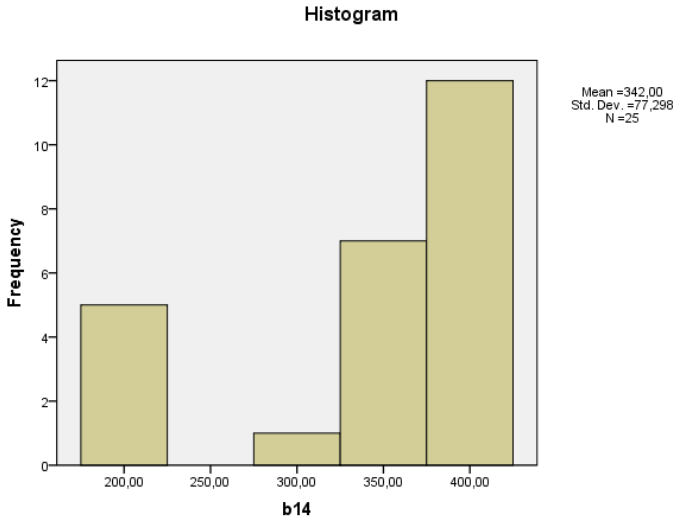
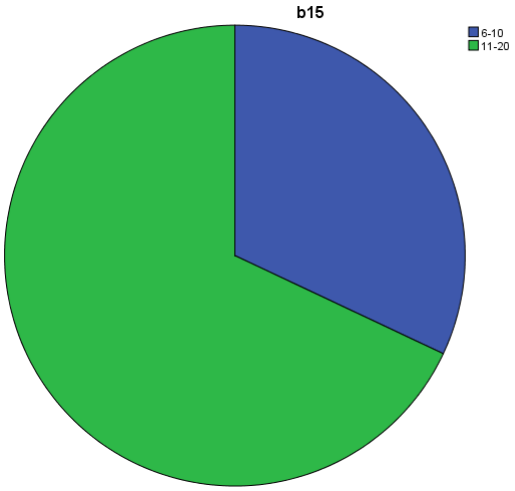


Table 24. Table with the percentages of the responses of b15 variable

b15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	8	32,0	32,0	32,0
	11-20	17	68,0	68,0	100,0
	Total	25	100,0	100,0	

Graphic 41. Pie chart with the percentage distribution of the responses of b15 variable



Graphic 42. Histogram with the frequencies of the responses of b15 variable

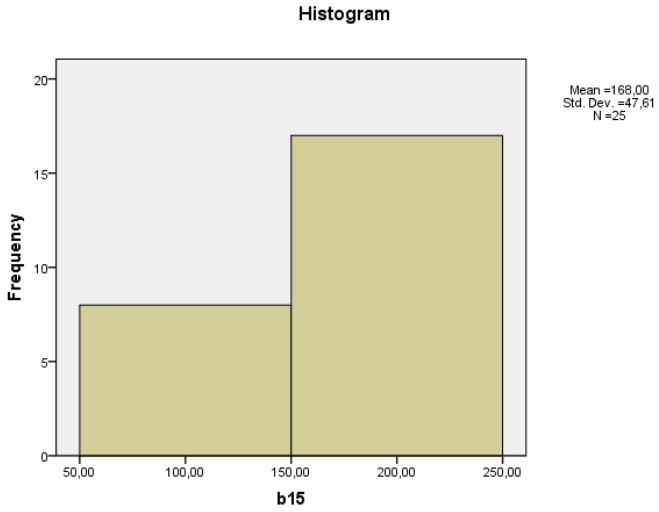
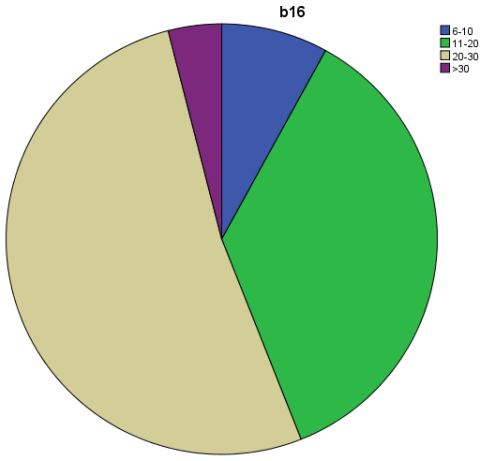


Table 25. Table with the percentages of the responses of b16 variable

b16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	2	8,0	8,0	8,0
	11-20	9	36,0	36,0	44,0
	20-30	13	52,0	52,0	96,0
	>30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 43. Pie chart with the percentage distribution of the responses of b16 variable



Graphic 44. Histogram with the frequencies of the responses of b16 variable

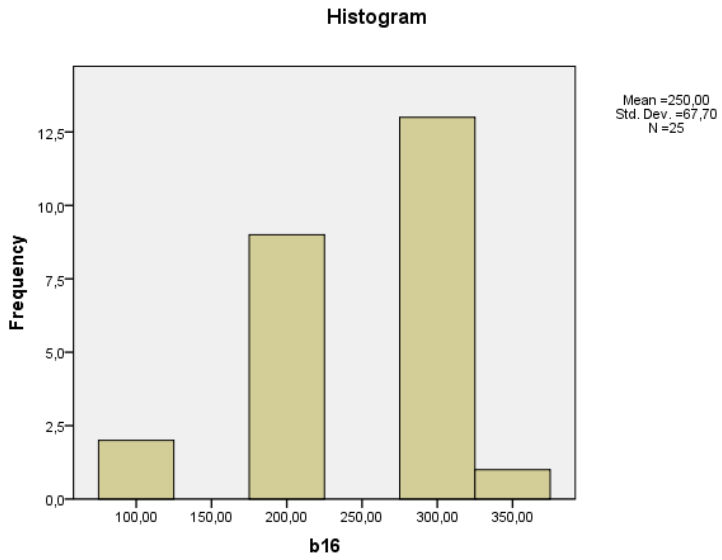
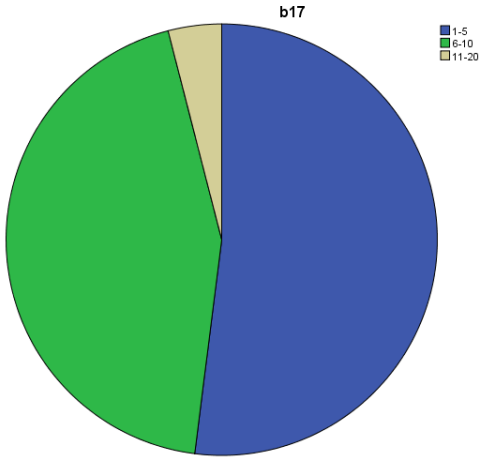


Table 26. Table with the percentages of the responses of b17 variable

b17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	13	52,0	52,0	52,0
	6-10	11	44,0	44,0	96,0
	11-20	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 45. Pie chart with the percentage distribution of the responses of b17 variable



Graphic 46. Histogram with the frequencies of the responses of b17 variable

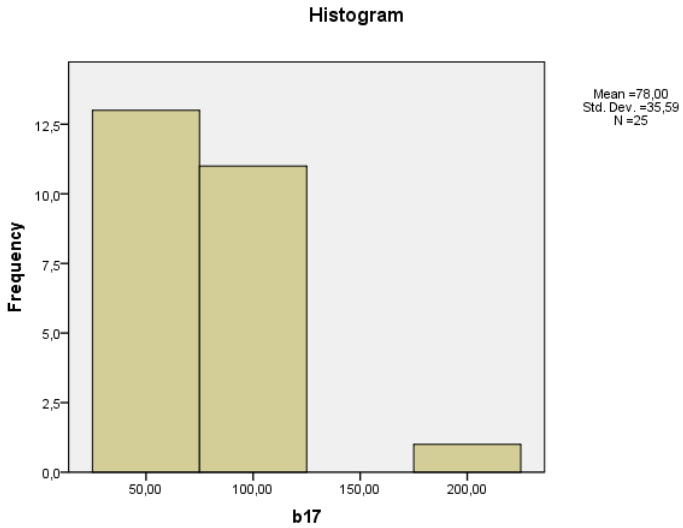
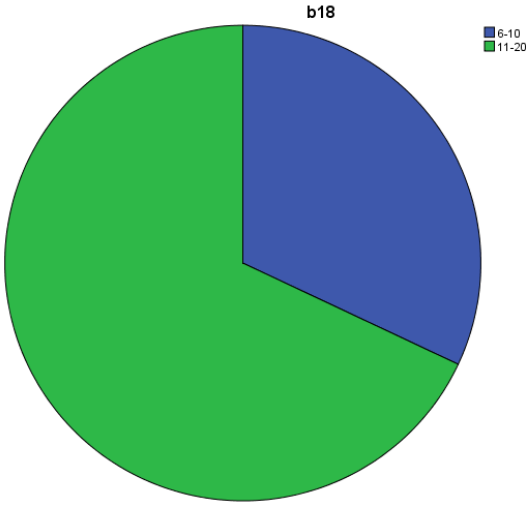


Table 27. Table with the percentages of the responses of b18 variable

b18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	8	32,0	32,0	32,0
	11-20	17	68,0	68,0	100,0
	Total	25	100,0	100,0	

Graphic 47. Pie chart with the percentage distribution of the responses of b18 variable



Graphic 48. Histogram with the frequencies of the responses of b18 variable

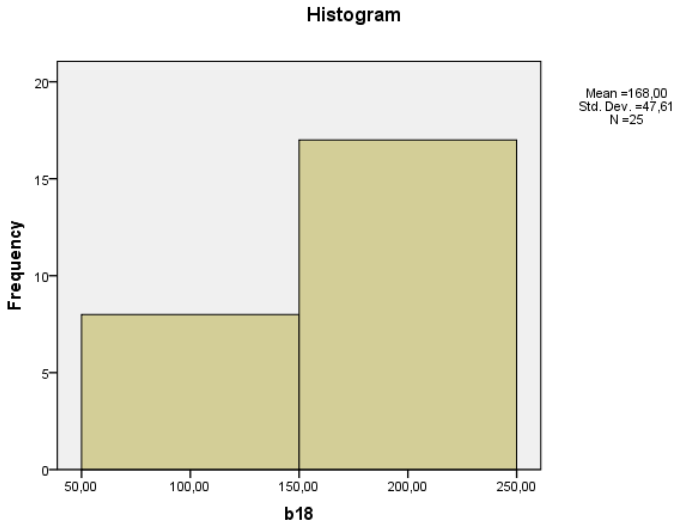
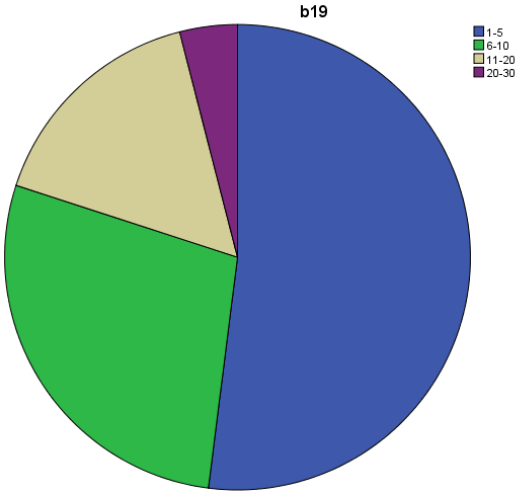


Table 28. Table with the percentages of the responses of b19 variable

b19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	13	52,0	52,0	52,0
	6-10	7	28,0	28,0	80,0
	11-20	4	16,0	16,0	96,0
	20-30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 49. Pie chart with the percentage distribution of the responses of b19 variable



Graphic 50. Histogram with the frequencies of the responses of b19 variable

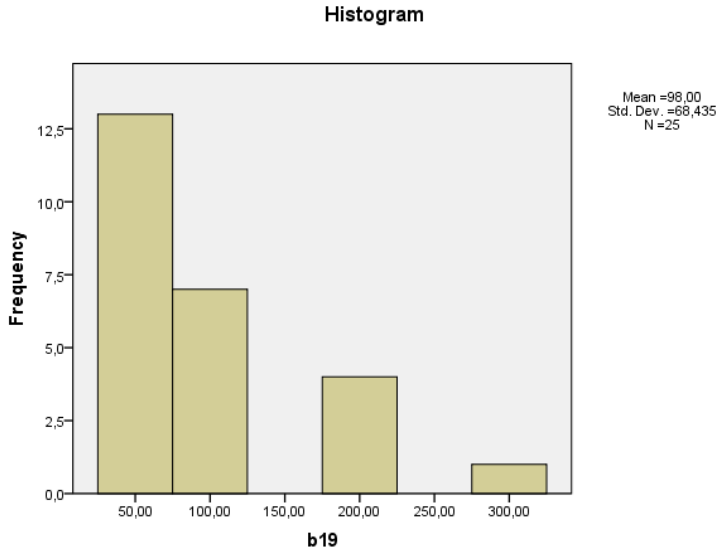
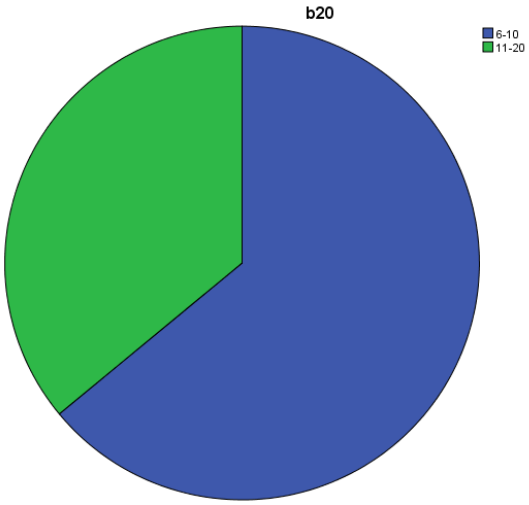


Table 29. Table with the percentages of the responses of b20 variable

b20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	16	64,0	64,0	64,0
	11-20	9	36,0	36,0	100,0
	Total	25	100,0	100,0	

Graphic 51. Pie chart with the percentage distribution of the responses of b20 variable



Graphic 52. Histogram with the frequencies of the responses of b20 variable

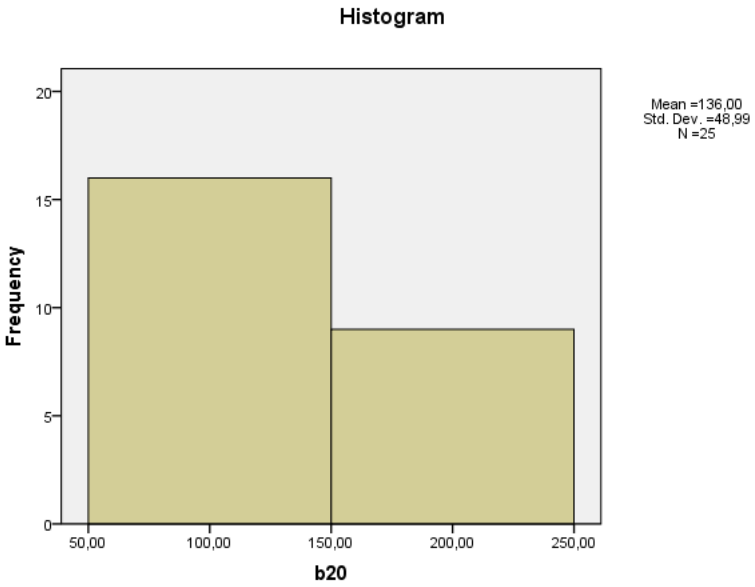
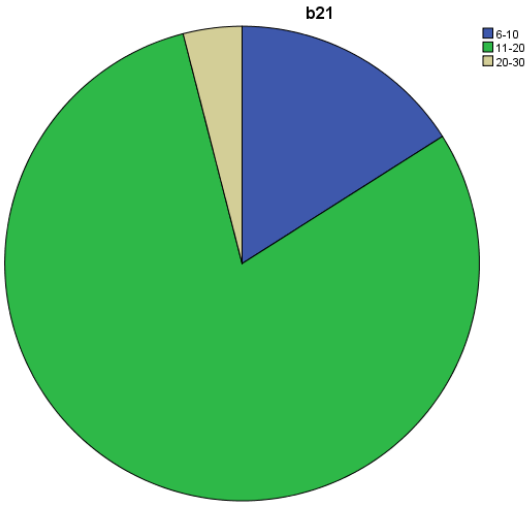


Table 30. Table with the percentages of the responses of b21 variable

b21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	4	16,0	16,0	16,0
	11-20	20	80,0	80,0	96,0
	20-30	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 53. Pie chart with the percentage distribution of the responses of b21 variable



Graphic 54. Histogram with the frequencies of the responses of b21 variable

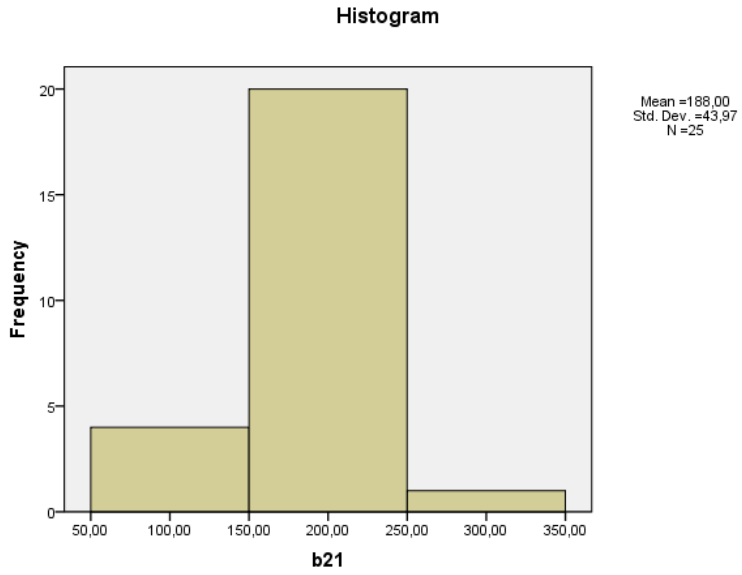
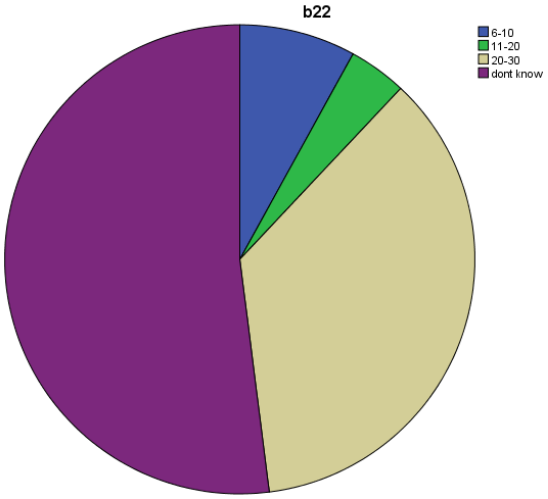


Table 31. Table with the percentages of the responses of b22 variable

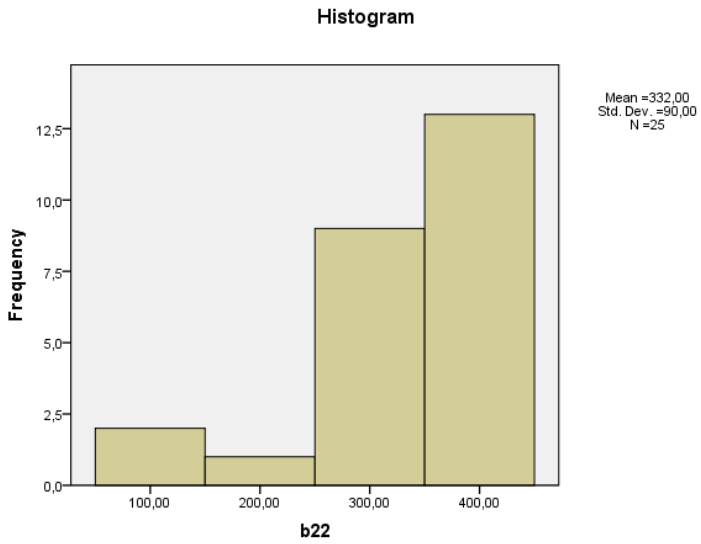
b22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6-10	2	8,0	8,0	8,0
	11-20	1	4,0	4,0	12,0
	20-30	9	36,0	36,0	48,0
	dont know	13	52,0	52,0	100,0
	Total	25	100,0	100,0	

Graphic 55. Pie chart with the percentage distribution of the responses of b22 variable



Graphic 56. Histogram with the frequencies of the responses of b22 variable



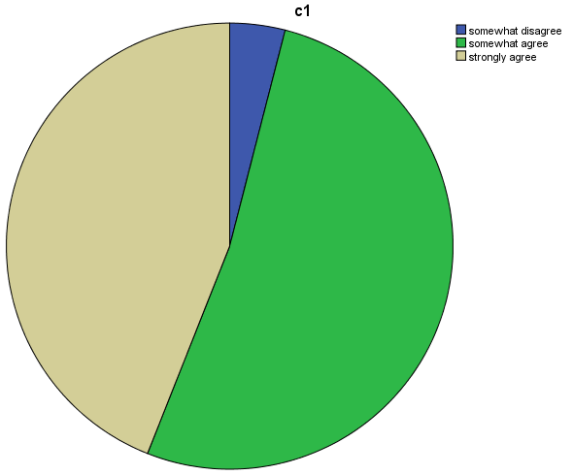
B. *Access to services*

Table 32. Table with the percentages of the responses of c1 variable

c1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	1	4,0	4,0	4,0
	somewhat agree	13	52,0	52,0	56,0
	strongly agree	11	44,0	44,0	100,0
	Total	25	100,0	100,0	

Graphic 57. Pie chart with the percentage distribution of the responses of c1 variable



Graphic 58. Histogram with the frequencies of the responses of c1 variable

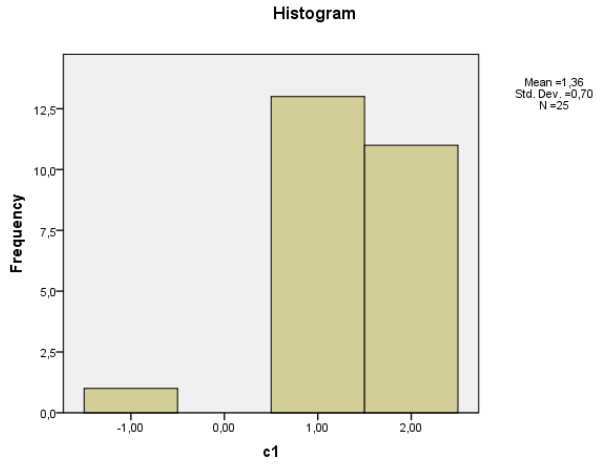
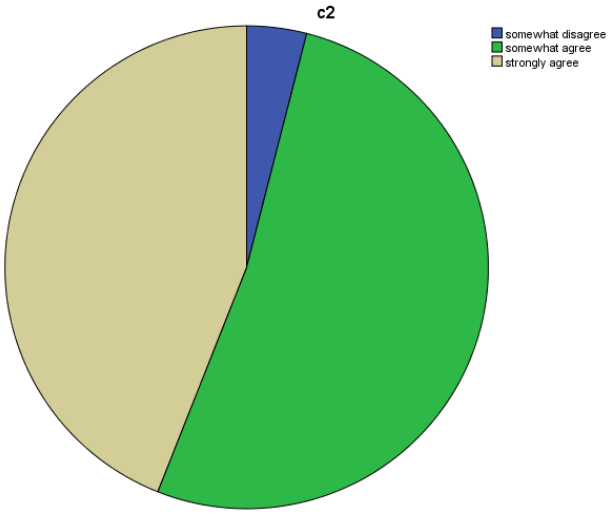


Table 33. Table with the percentages of the responses of c2 variable

c2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	1	4,0	4,0	4,0
	somewhat agree	13	52,0	52,0	56,0
	strongly agree	11	44,0	44,0	100,0
	Total	25	100,0	100,0	

Graphic 59. Pie chart with the percentage distribution of the responses of c2 variable



Graphic 60. Histogram with the frequencies of the responses of c2 variable

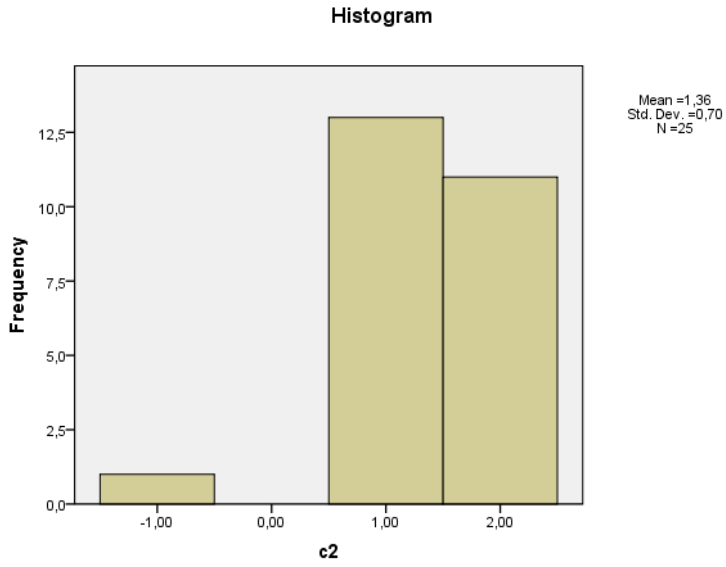
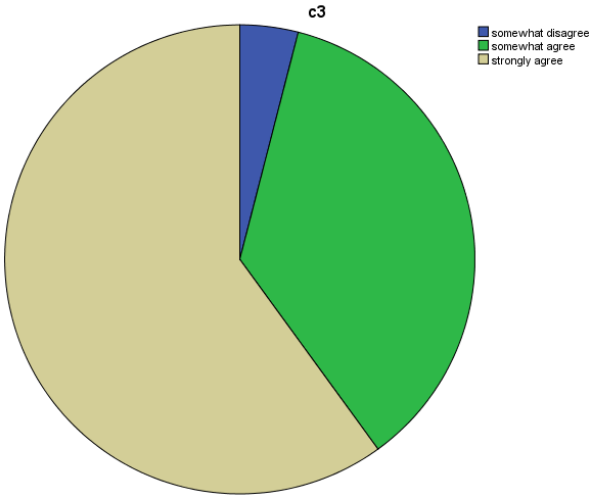


Table 34. Table with the percentages of the responses of c3 variable

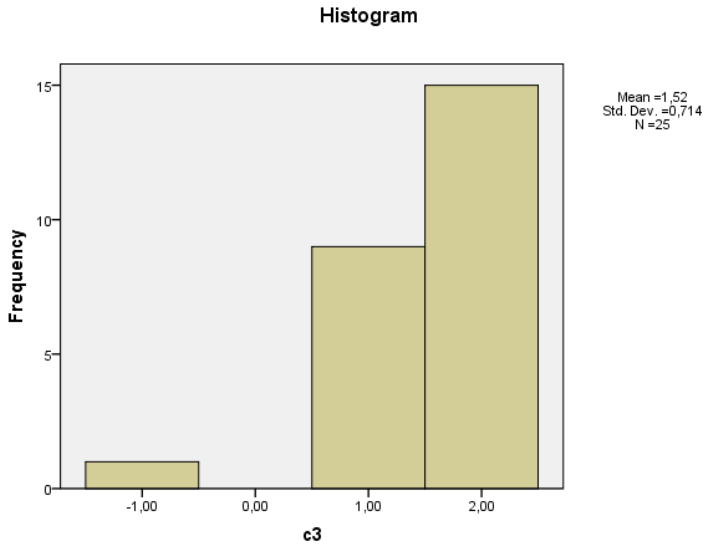
c3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	1	4,0	4,0	4,0
	somewhat agree	9	36,0	36,0	40,0
	strongly agree	15	60,0	60,0	100,0
	Total	25	100,0	100,0	

Graphic 61. Pie chart with the percentage distribution of the responses of c3 variable



Graphic 62. Histogram with the frequencies of the responses of c3 variable



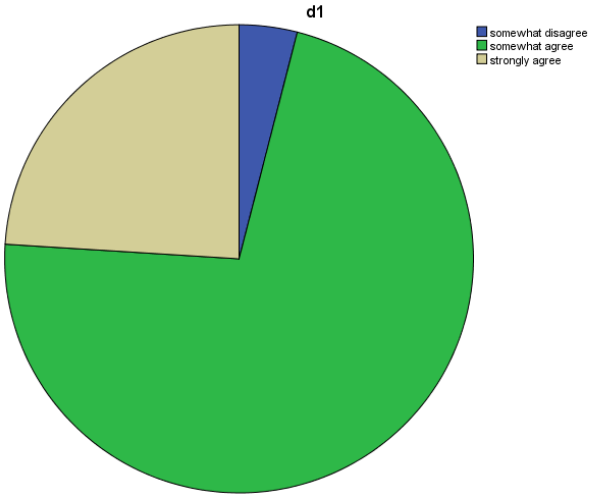
C. *Streets in my neighborhood*

Table 35. Table with the percentages of the responses of d1 variable

d1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	1	4,0	4,0	4,0
	somewhat agree	18	72,0	72,0	76,0
	strongly agree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Graphic 63. Pie chart with the percentage distribution of the responses of d1 variable



Graphic 64. Histogram with the frequencies of the responses of d1 variable

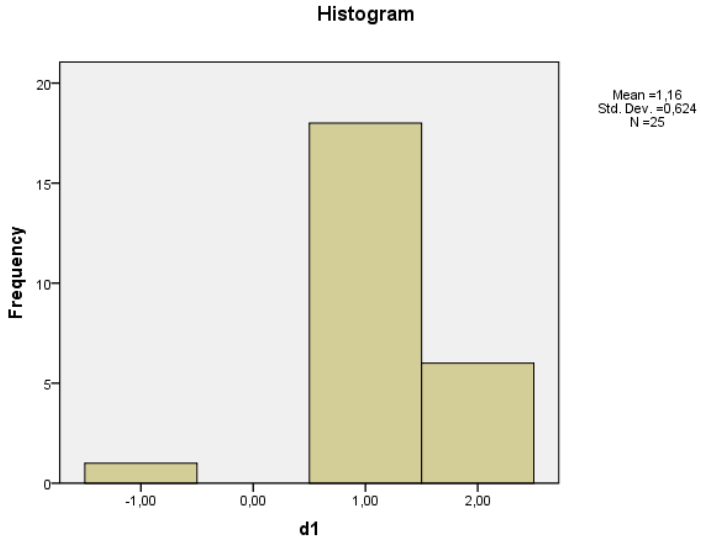
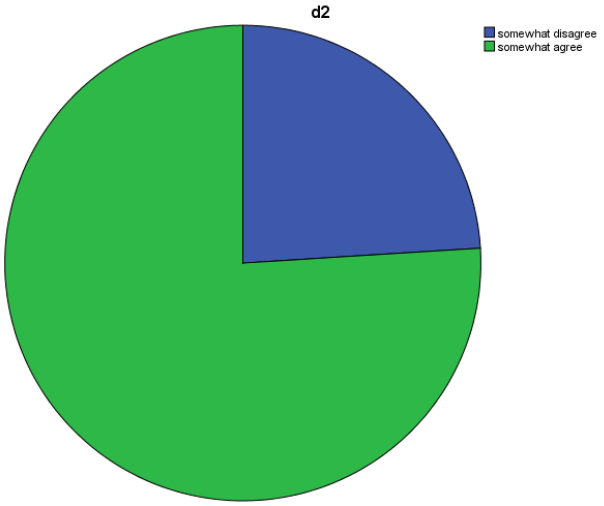


Table 36. Table with the percentages of the responses of d2 variable

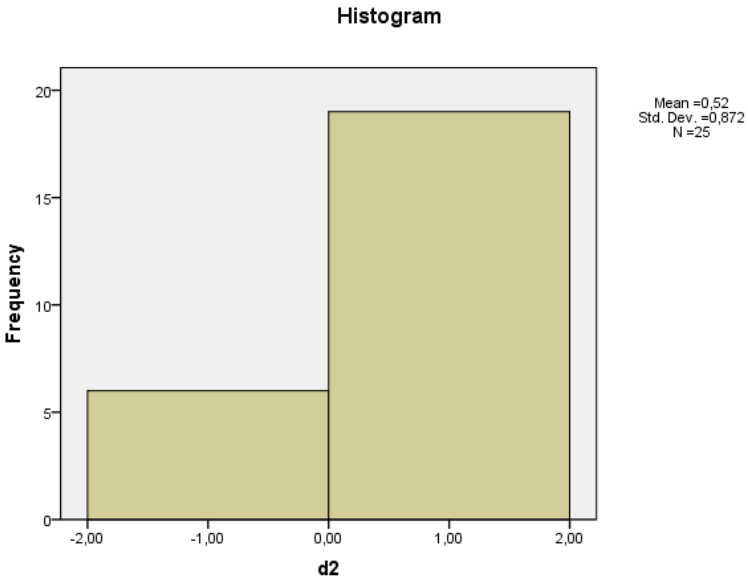
d2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	6	24,0	24,0	24,0
	somewhat agree	19	76,0	76,0	100,0
	Total	25	100,0	100,0	

Graphic 65. Pie chart with the percentage distribution of the responses of d2 variable



Graphic 66. Histogram with the frequencies of the responses of d2 variable



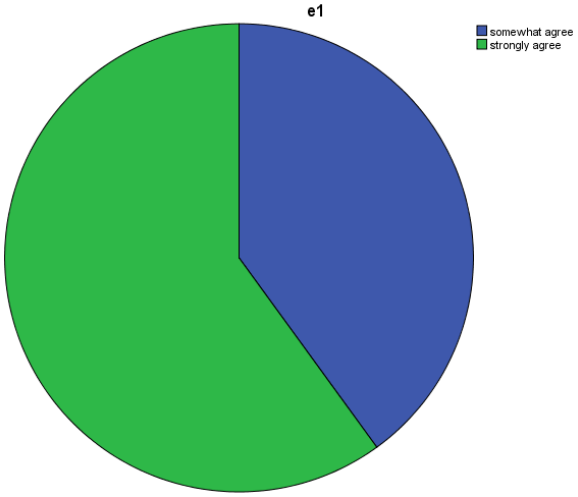
D. Places for walking

Table 37. Table with the percentages of the responses of e1 variable

e1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat agree	10	40,0	40,0	40,0
	strongly agree	15	60,0	60,0	100,0
	Total	25	100,0	100,0	

Graphic 67. Pie chart with the percentage distribution of the responses of e1 variable



Graphic 68. Histogram with the frequencies of the responses of e1 variable

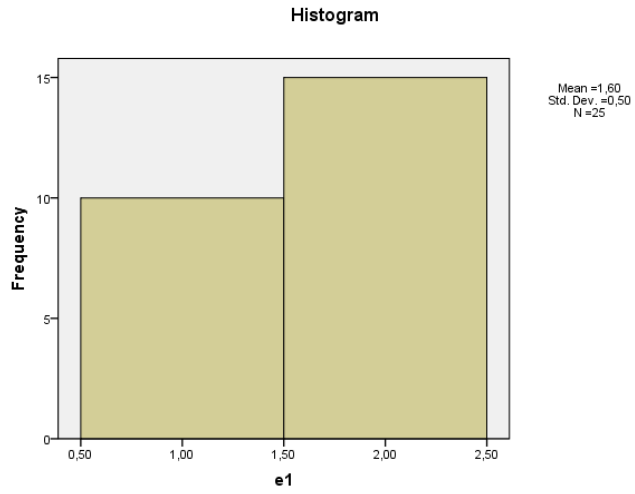
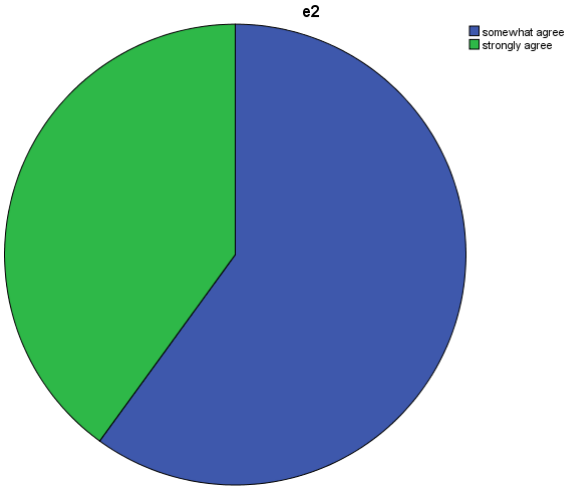


Table 38. Table with the percentages of the responses of e2 variable

e2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat agree	15	60,0	60,0	60,0
	strongly agree	10	40,0	40,0	100,0
	Total	25	100,0	100,0	

Graphic 69. Pie chart with the percentage distribution of the responses of e2 variable



Graphic 70. Histogram with the frequencies of the responses of e2 variable

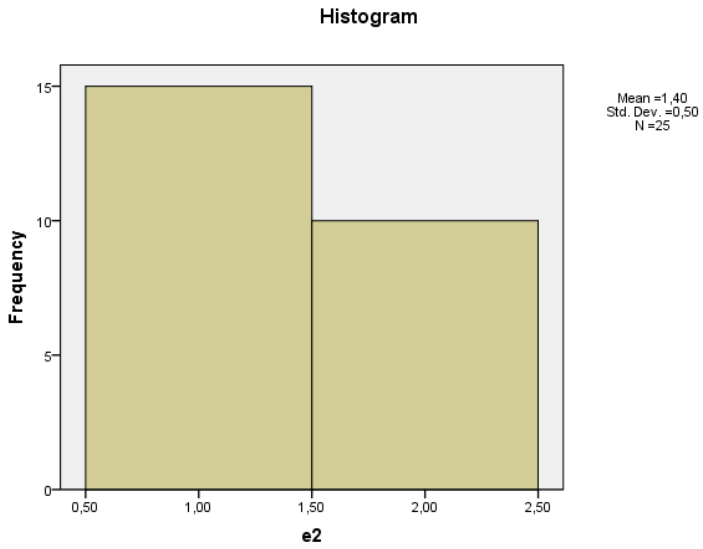
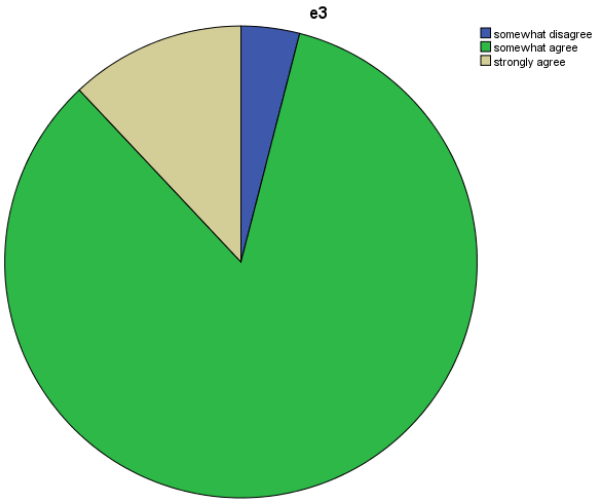


Table 39. Table with the percentages of the responses of e3 variable

e3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	1	4,0	4,0	4,0
	somewhat agree	21	84,0	84,0	88,0
	strongly agree	3	12,0	12,0	100,0
	Total	25	100,0	100,0	

Graphic 71. Pie chart with the percentage distribution of the responses of e3 variable



Graphic 72. Histogram with the frequencies of the responses of e3 variable

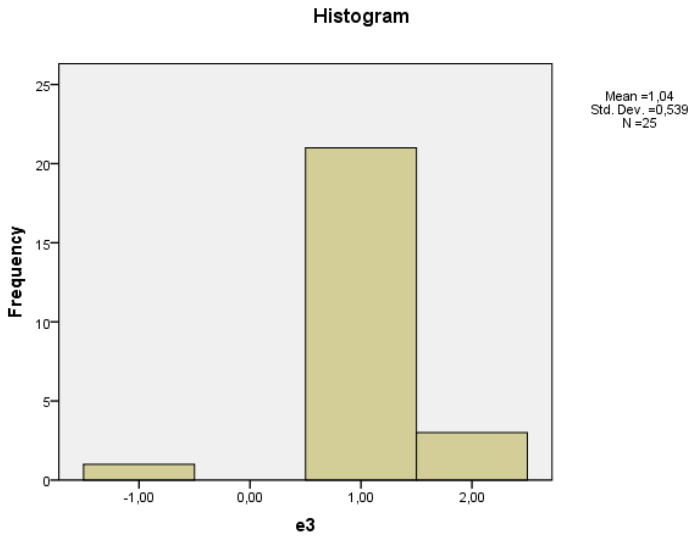
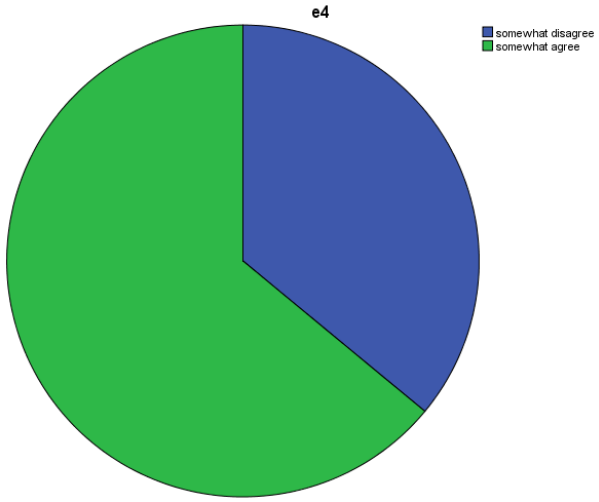


Table 40. Table with the percentages of the responses of e4 variable

e4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	9	36,0	36,0	36,0
	somewhat agree	16	64,0	64,0	100,0
	Total	25	100,0	100,0	

Graphic 73. Pie chart with the percentage distribution of the responses of e4 variable



Graphic 74. Histogram with the frequencies of the responses of e4 variable

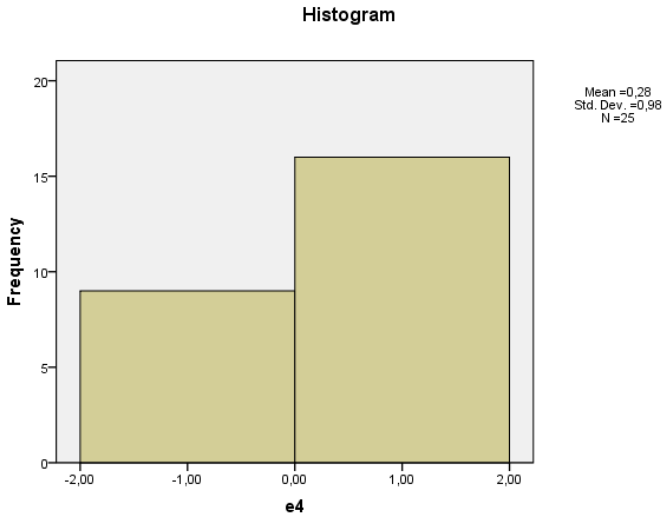
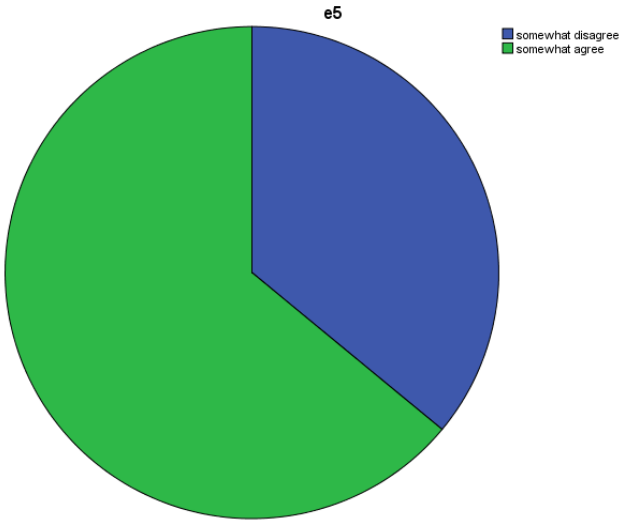


Table 41. Table with the percentages of the responses of e5 variable

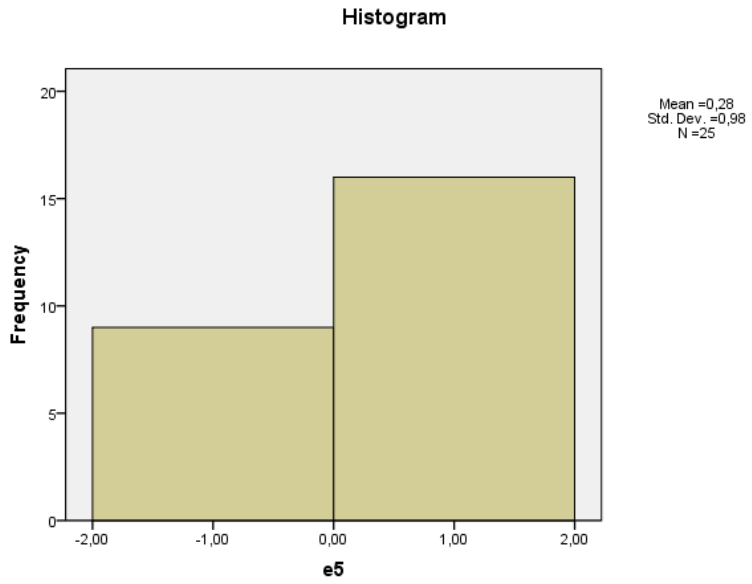
e5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	9	36,0	36,0	36,0
	somewhat agree	16	64,0	64,0	100,0
	Total	25	100,0	100,0	

Graphic 75. Pie chart with the percentage distribution of the responses of e5 variable



Graphic 76. Histogram with the frequencies of the responses of e5 variable



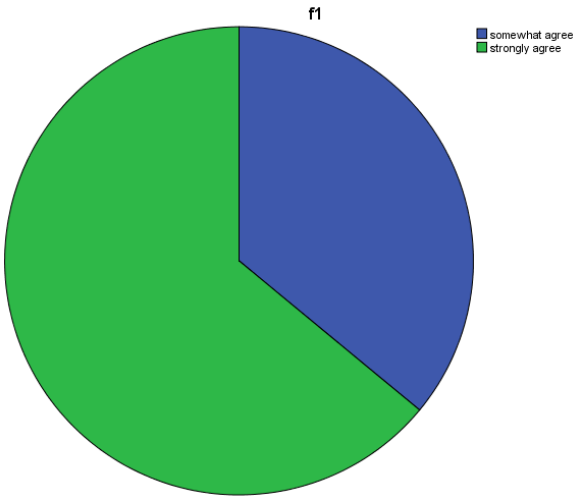
E. Neighborhood surroundings/ aesthetics

Table 42. Table with the percentages of the responses of f1 variable

f1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat agree	9	36,0	36,0	36,0
	strongly agree	16	64,0	64,0	100,0
	Total	25	100,0	100,0	

Graphic 77. Pie chart with the percentage distribution of the responses of f1 variable



Graphic 78. Histogram with the frequencies of the responses of f1 variable

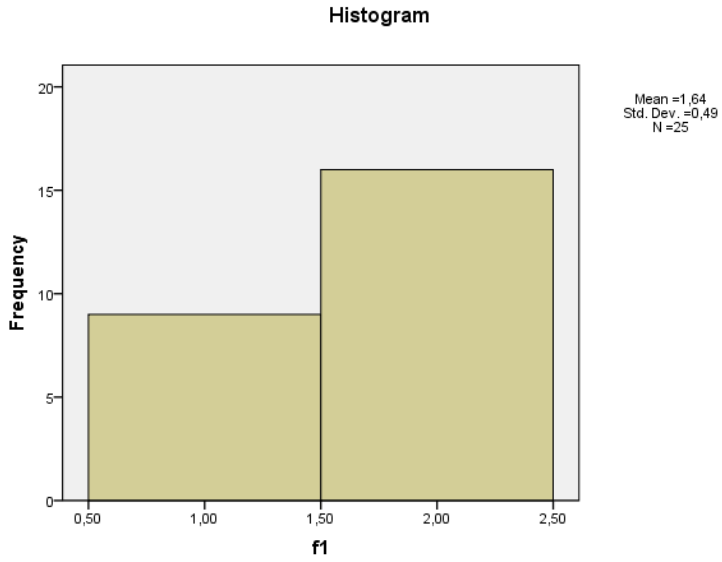
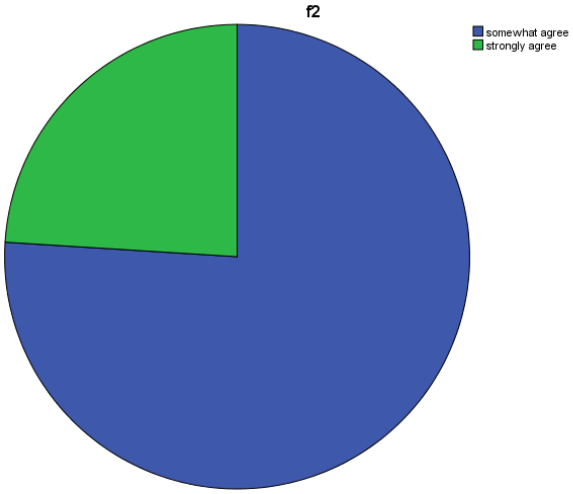


Table 43. Table with the percentages of the responses of f2 variable

f2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat agree	19	76,0	76,0	76,0
	strongly agree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Graphic 79. Pie chart with the percentage distribution of the responses of f2 variable



Graphic 80. Histogram with the frequencies of the responses of f2 variable

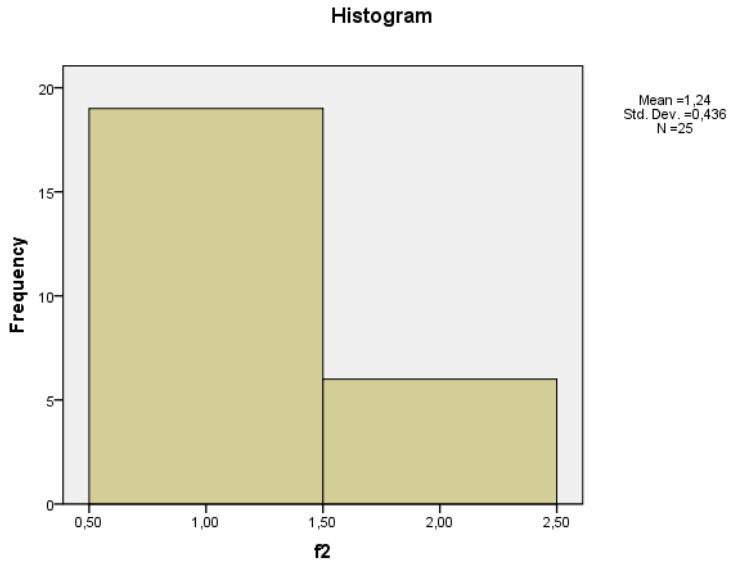
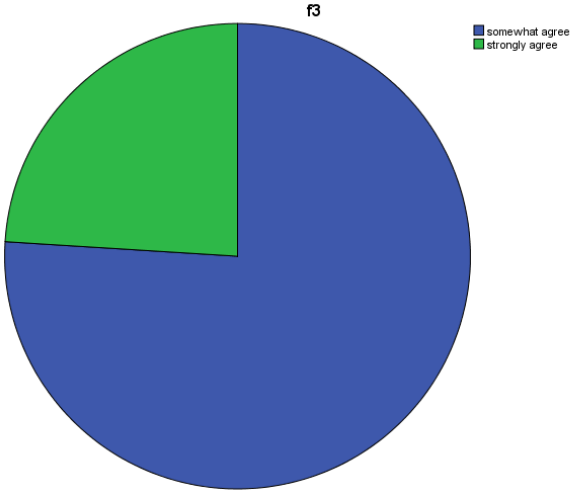


Table 44. Table with the percentages of the responses of f3 variable

f3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat agree	19	76,0	76,0	76,0
	strongly agree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Graphic 81. Pie chart with the percentage distribution of the responses of f3 variable



Graphic 82. Histogram with the frequencies of the responses of f3 variable

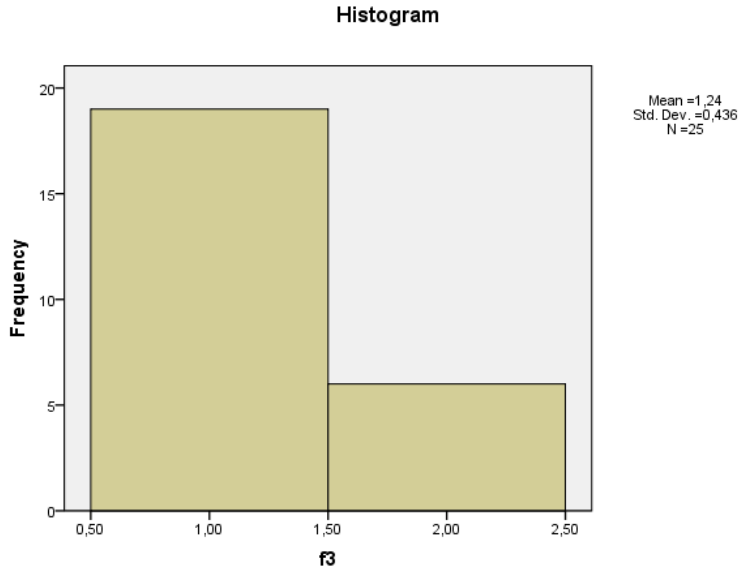
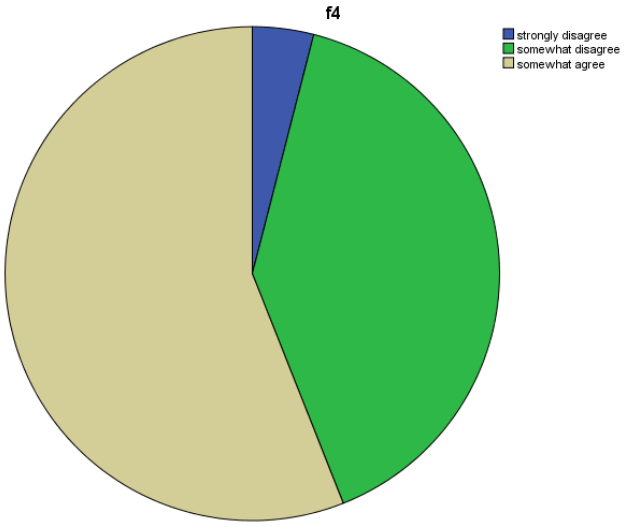


Table 45. Table with the percentages of the responses of f4 variable

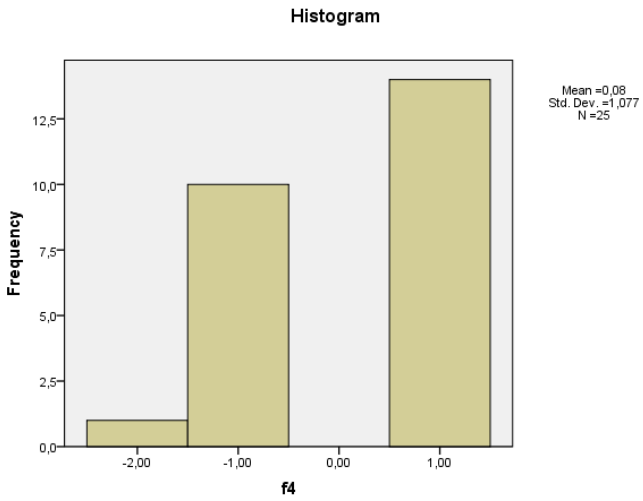
f4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	4,0	4,0	4,0
	somewhat disagree	10	40,0	40,0	44,0
	somewhat agree	14	56,0	56,0	100,0
	Total	25	100,0	100,0	

Graphic 83. Pie chart with the percentage distribution of the responses of f4 variable



Graphic 84. Histogram with the frequencies of the responses of f4 variable



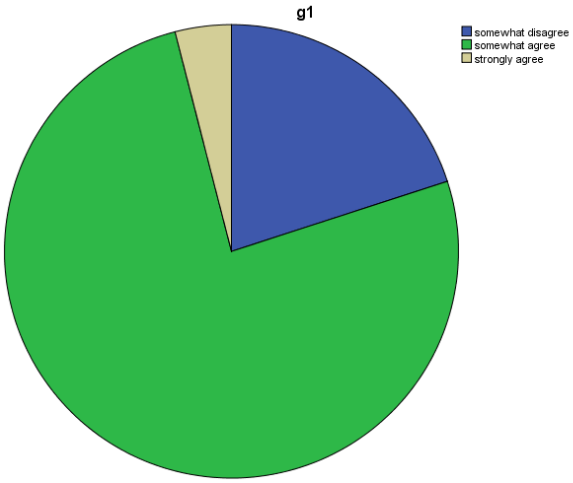
F. Traffic hazards

Table 46. Table with the percentages of the responses of g1 variable

g1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	5	20,0	20,0	20,0
	somewhat agree	19	76,0	76,0	96,0
	strongly agree	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 85. Pie chart with the percentage distribution of the responses of g1 variable



Graphic 86. Histogram with the frequencies of the responses of g1 variable

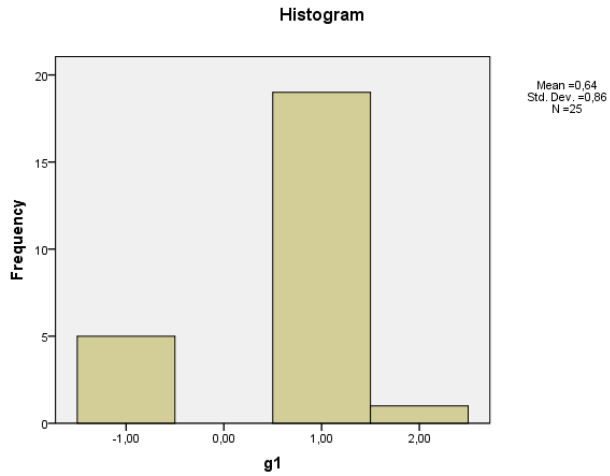
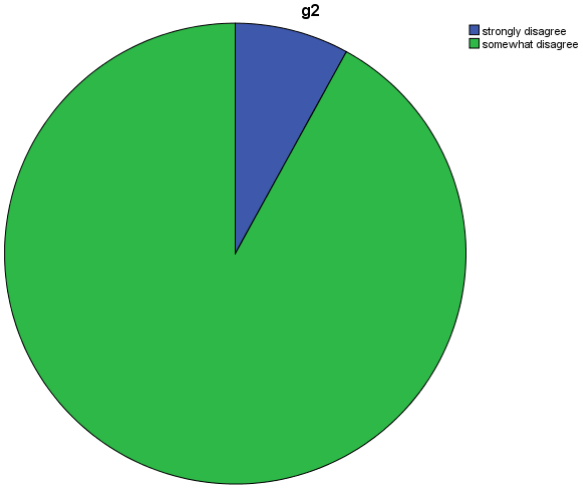


Table 47. Table with the percentages of the responses of g2 variable

g2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	8,0	8,0	8,0
	somewhat disagree	23	92,0	92,0	100,0
	Total	25	100,0	100,0	

Graphic 87. Pie chart with the percentage distribution of the responses of g2 variable



Graphic 88. Histogram with the frequencies of the responses of g2 variable

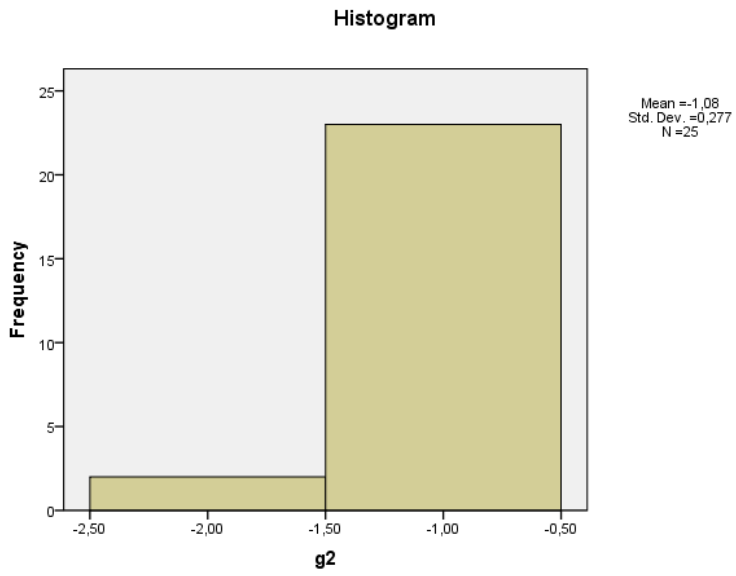
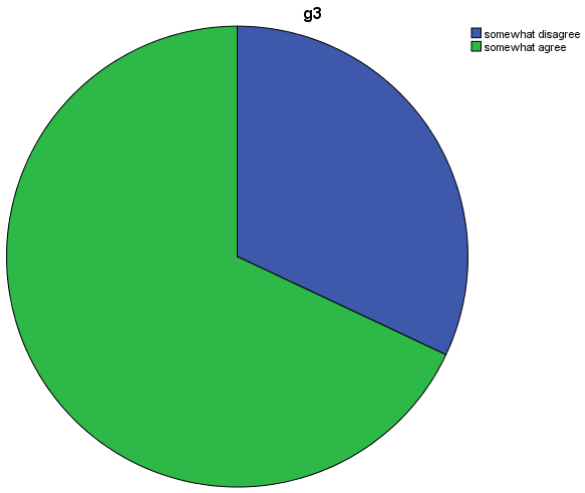


Table 48. Table with the percentages of the responses of g3 variable

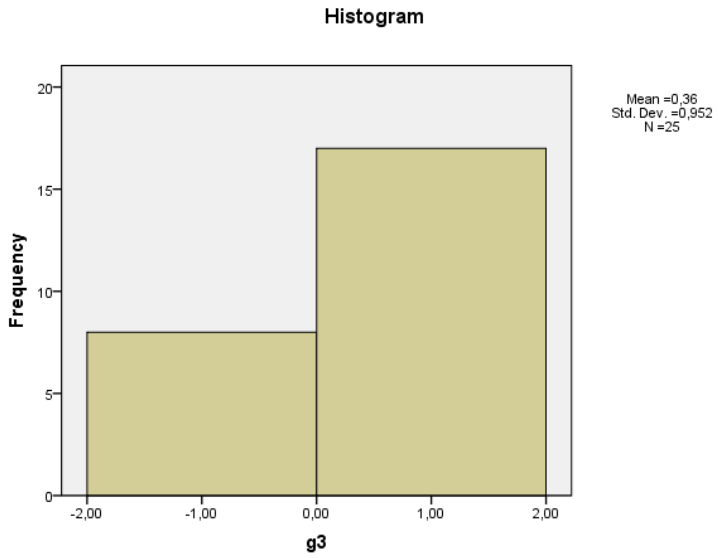
g3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	8	32,0	32,0	32,0
	somewhat agree	17	68,0	68,0	100,0
	Total	25	100,0	100,0	

Graphic 89. Pie chart with the percentage distribution of the responses of g3 variable



Graphic 90. Histogram with the frequencies of the responses of g3 variable



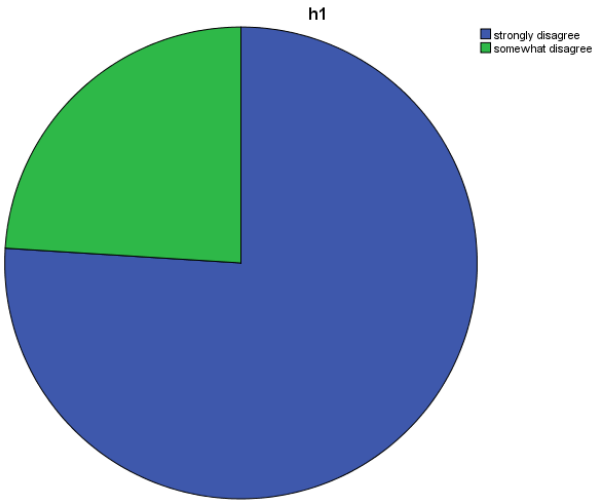
G. Crime

Table 49. Table with the percentages of the responses of h1 variable

h1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	19	76,0	76,0	76,0
	somewhat disagree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Graphic 91. Pie chart with the percentage distribution of the responses of h1 variable



Graphic 92. Histogram with the frequencies of the responses of h1 variable

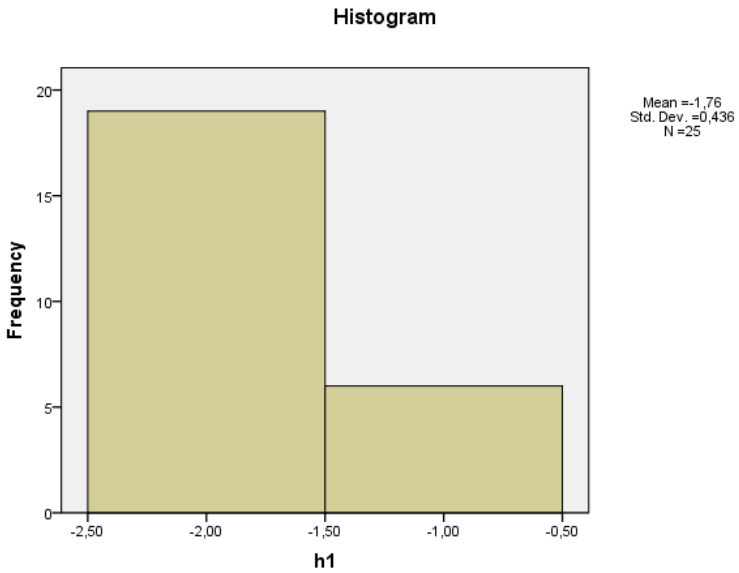
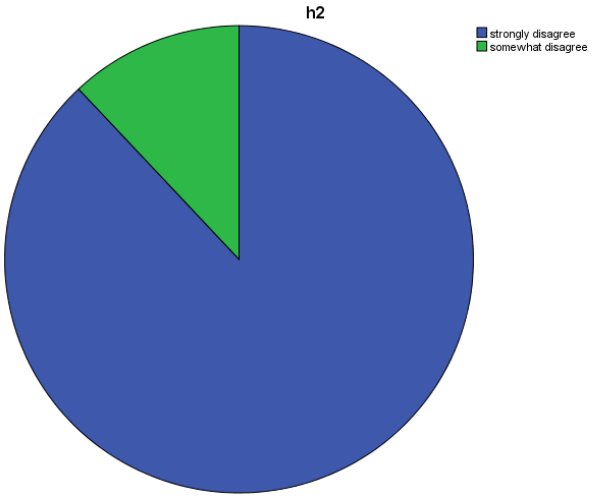


Table 50. Table with the percentages of the responses of h2 variable

h2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	22	88,0	88,0	88,0
	somewhat disagree	3	12,0	12,0	100,0
	Total	25	100,0	100,0	

Graphic 93. Pie chart with the percentage distribution of the responses of h2 variable



Graphic 94. Histogram with the frequencies of the responses of h2 variable

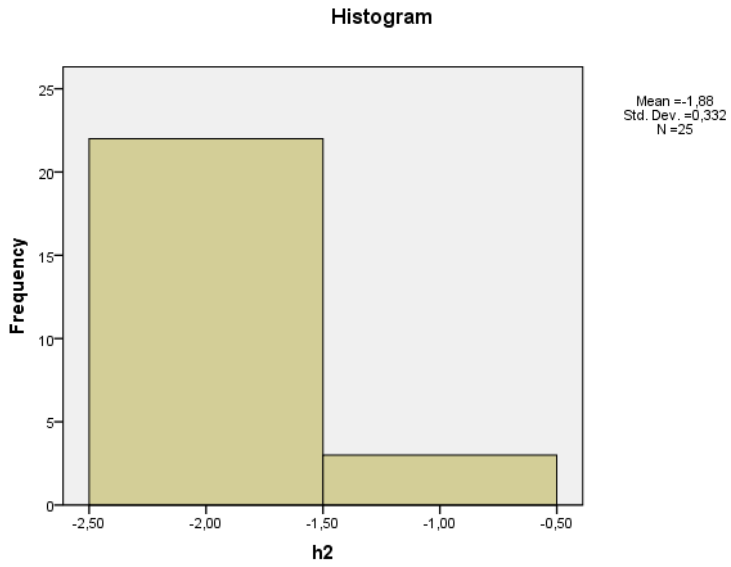
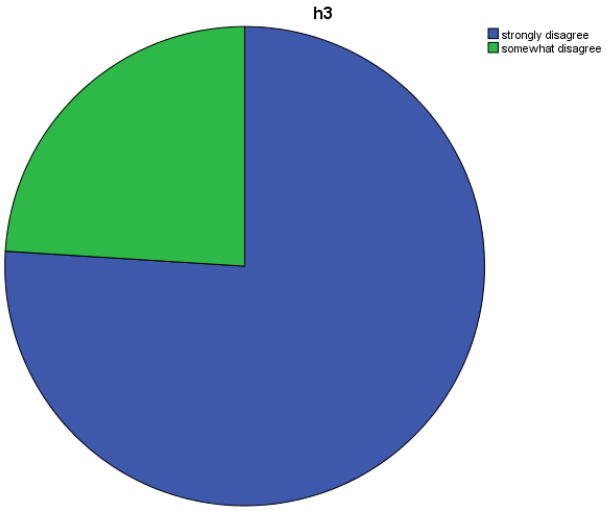


Table 51. Table with the percentages of the responses of h3 variable

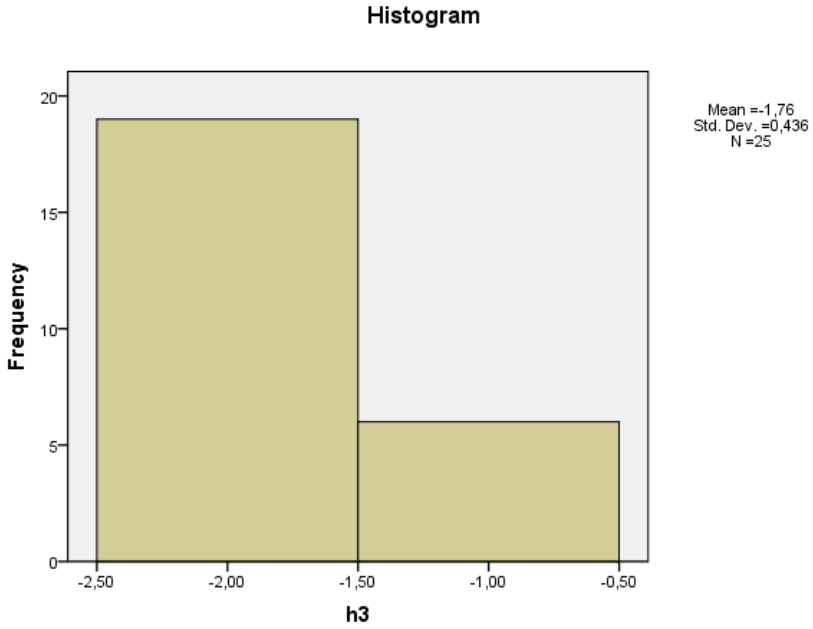
h3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	19	76,0	76,0	76,0
	somewhat disagree	6	24,0	24,0	100,0
	Total	25	100,0	100,0	

Graphic 95. Pie chart with the percentage distribution of the responses of h3 variable



Graphic 96. Histogram with the frequencies of the responses of h3 variable



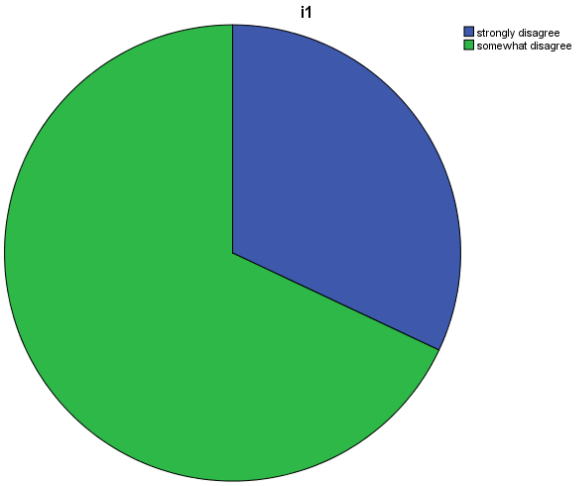
H. Single items that did not load on other factors

Table 52. Table with the percentages of the responses of i1 variable

i1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	32,0	32,0	32,0
	somewhat disagree	17	68,0	68,0	100,0
	Total	25	100,0	100,0	

Graphic 97. Pie chart with the percentage distribution of the responses of i1 variable



Graphic 98. Histogram with the frequencies of the responses of i1 variable

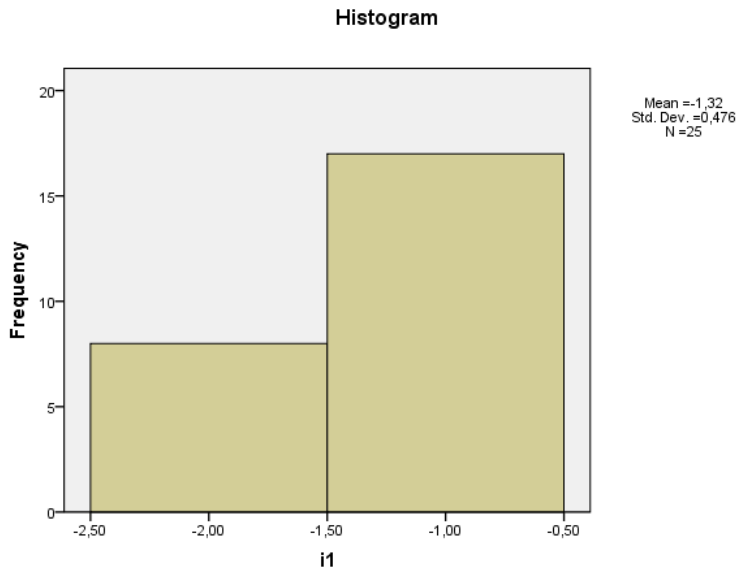
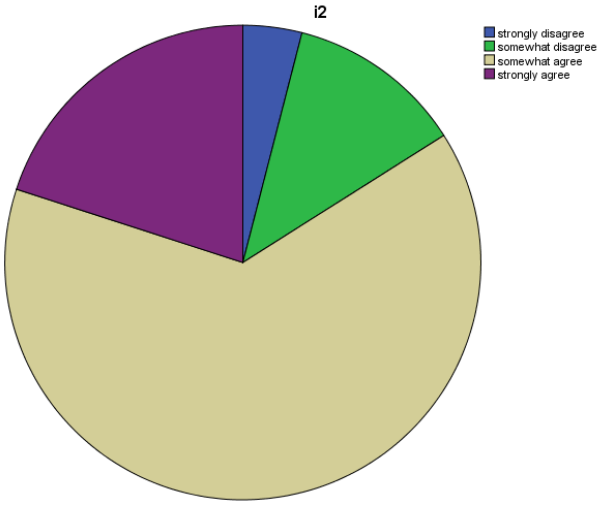


Table 53. Table with the percentages of the responses of i2 variable

i2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	4,0	4,0	4,0
	somewhat disagree	3	12,0	12,0	16,0
	somewhat agree	16	64,0	64,0	80,0
	strongly agree	5	20,0	20,0	100,0
	Total	25	100,0	100,0	

Graphic 99. Pie chart with the percentage distribution of the responses of i2 variable



Graphic 100. Histogram with the frequencies of the responses of i2 variable

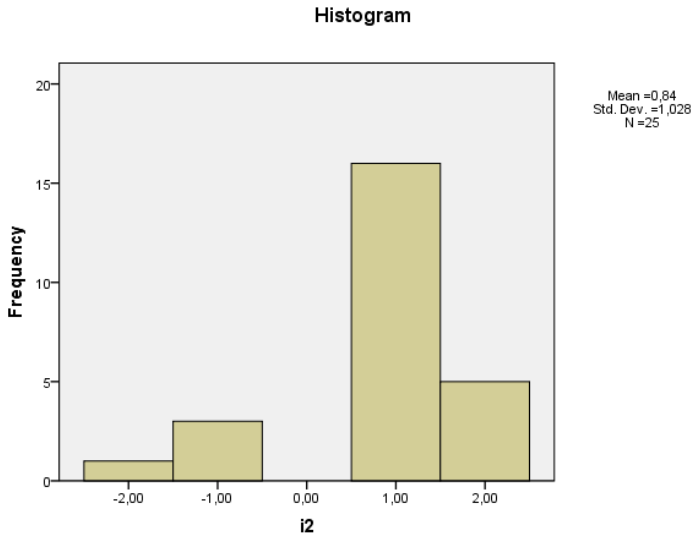
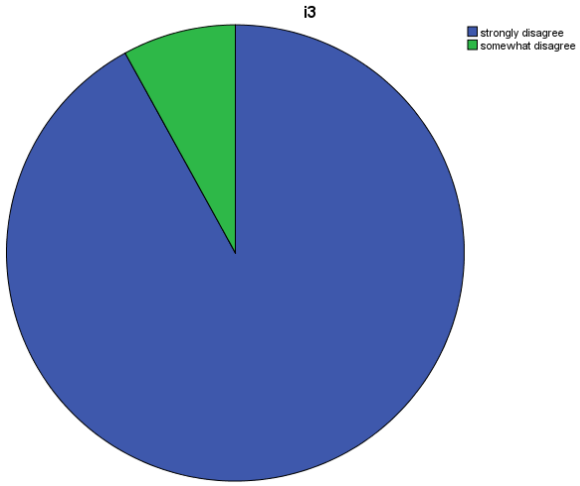


Table 54. Table with the percentages of the responses of i3 variable

i3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	23	92,0	92,0	92,0
	somewhat disagree	2	8,0	8,0	100,0
	Total	25	100,0	100,0	

Graphic 101. Pie chart with the percentage distribution of the responses of i3 variable



Graphic 102. Histogram with the frequencies of the responses of i3 variable

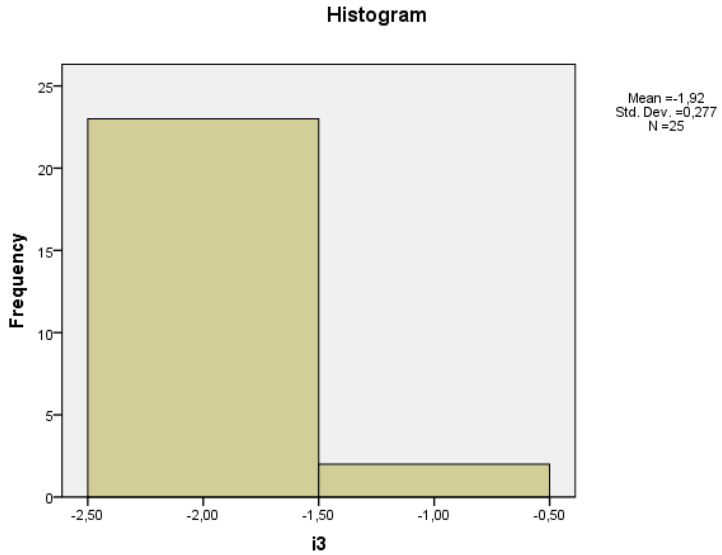
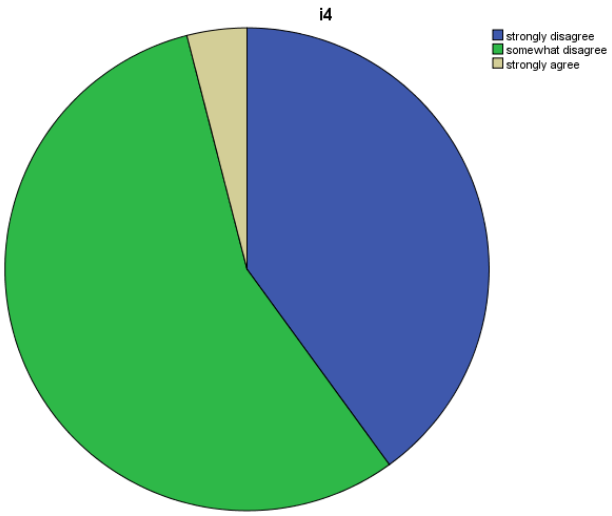


Table 55. Table with the percentages of the responses of i4 variable

i4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	40,0	40,0	40,0
	somewhat disagree	14	56,0	56,0	96,0
	strongly agree	1	4,0	4,0	100,0
	Total	25	100,0	100,0	

Graphic 103. Pie chart with the percentage distribution of the responses of i4 variable



Graphic 104. Histogram with the frequencies of the responses of i4 variable

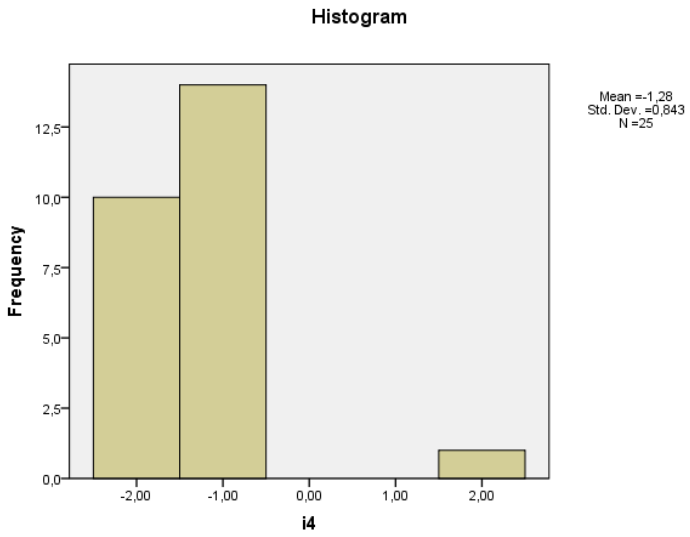
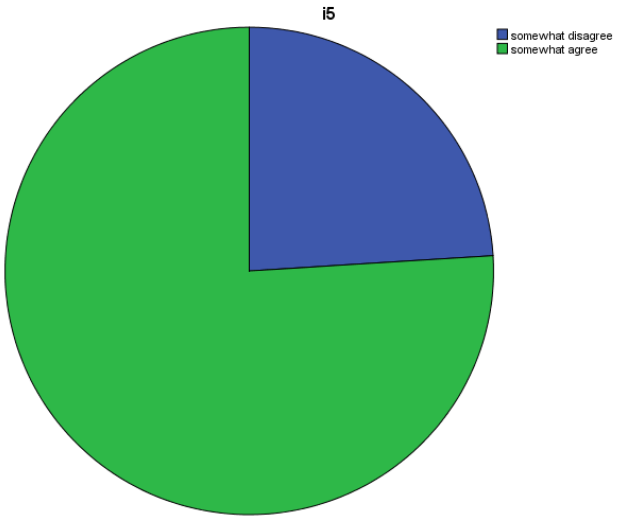


Table 56. Table with the percentages of the responses of i5 variable

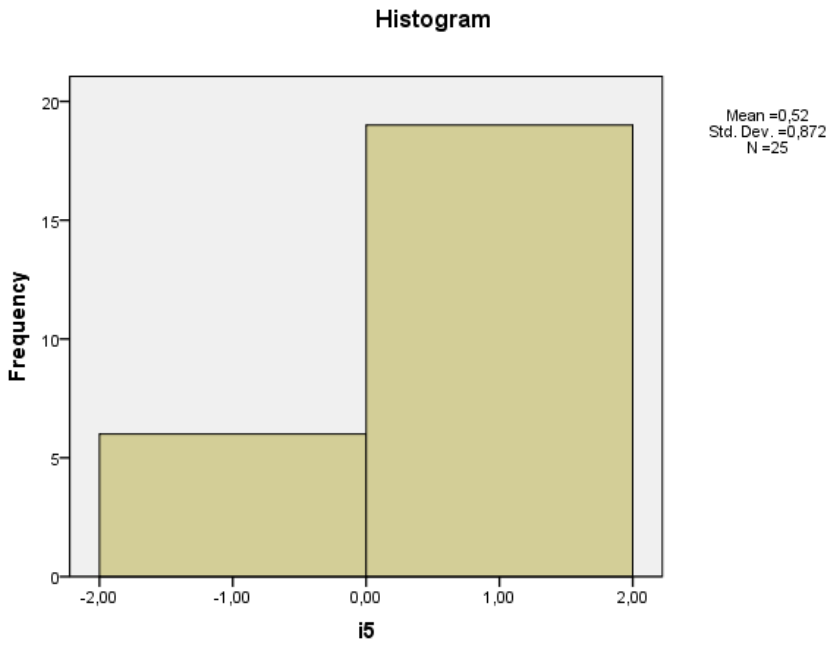
i5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	somewhat disagree	6	24,0	24,0	24,0
	somewhat agree	19	76,0	76,0	100,0
	Total	25	100,0	100,0	

Graphic 105. Pie chart with the percentage distribution of the responses of i5 variable



Graphic 106. Histogram with the frequencies of the responses of i5 variable



Of the 35 elderly there were 25 physical active people (N=25). Table 4 presents the attributes of the mean respondent NEWS-A questionnaire. This shows also the mean scoring of a high or low walkable environment perceptions.

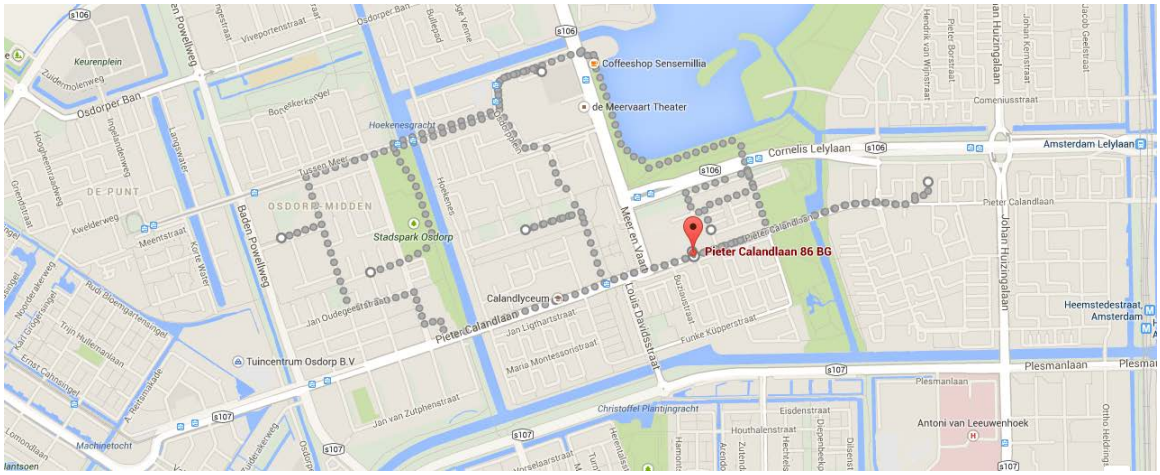
Table 57. The perceptions of a mean scoring of a high and low walkable environment

Environmental perceptions	**OSDORP mean**	**High-walkable mean**	**Low-walkable mean**
Residential density (A)	1128,9200	1557,00	865
Land use mix diversity(B)	178,5455	50	400
Land use mix access (C)	1,4133	2,00	-2,00
Street connectivity (D)	0,8400	2,00	-2,00
Infrastructure and safety for walking (E)	0,9333	2,00	-2,00
Aesthetics (F)	1,0500	2,00	-2,00
Traffic safety (G)	-0,0267	-2,00	2,00
Safety from crime (H)	-1,8000	-2,00	2,00
Parking near local shops is difficult (I)	-1,3200	2,00	-2,00
Streets do not have many cul-de-sacs (J)	0,8400	2,00	-2,00
Streets are hilly(K)	-1,9200	-2,00	2,00
Many hillsides in neighborhood (L)	-1,2800	-2,00	2,00
See and speak to other people while walking in neighborhood (M)	0,5200	-2,00	2,00

As we can see from the table above, most of the categories are scored as high walkable except of the traffic safety which is scored as middle high- walkable, parking near local shops and see and speak to other people which are scored as low walkable.

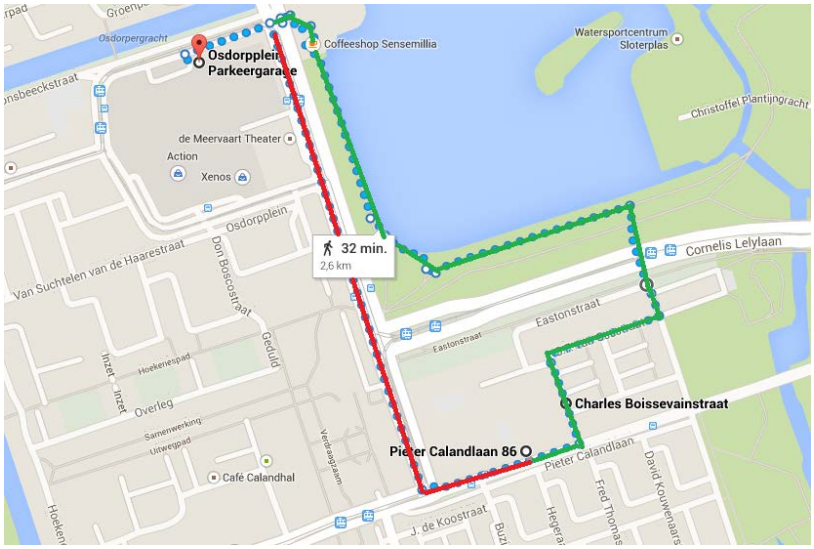
3.2. Map

Picture 1 shows all the routes of the elderly from where they live (home) to Osdorpplein or main route to the facilities (n=22). Three of the elderly live too far from Osdorpplein, but they usually go from the Cordaan centre (Pieter Calandlaan 86 BG) to Osdorpplein (n=3).



Picture 6. *All routes from home/Cordaan to Osdorpplein.*

Picture 7 shows in red the route that the elderly avoid when they walk to Osdorpplein. The green route is the route the participants really like if they walk from the Cordaan centre to Osdorpplein (n=25).



Picture 7. *The route which the elderly avoid to Osdorpplein*

Picture 8. *Meer en Vaart street which elderly avoid*

Picture 9. *Pedestrian Cross on the Meer en Vaart Street which the elderly avoid crossing*

.

Conclusion

1. Results

Our findings suggest that the area Osdorpplein centered by the Cordaan centre is highly walkable. Most items scored high-walkable by the participants. Excluding the traffic safety scored middle high-walkable. Only the parking near local shops safety and the social walking scored low.

Although Osdorpplein is moving in the right direction when it comes to safety of the community members and the walkability of elders in the area, there is one main route elderly from the Cordaan centre avoid. This is because of the pedestrian cross on Meer en Vaart street, which is a very busy cross and has a lot of tram rails which makes the elderly stressed and insecure.

Further research is needed to refine and validate the measures described in this paper, in other independent areas.

2. Product

The Osdorpplein area has already been improved immensely. The elders of the area are happy and satisfied with the area that they are living. There are certain aspects that still make them nervous when they walk around. Our advice to the Council District is to make the route Meer en Vaart safer, so it will score high walkable for elderly. By making this street more appealing to elders, we recommend putting in more benches and areas to rest. Another positive aspect of having benches is that it gives them a place to be social and have communication with others in their community. This is key, as in the questionnaire the elders mentioned that they do not have enough opportunities to be social. They are also nervous about crossing the streets, as there are a lot of buses and trams that go through the area. Therefore, it would be ideal to make the street more flat with a longer walking light, allowing them a decent amount of time to cross the street without feeling insecure or rushed.

Picture 8.Benches on the side of the Sloterpark where elder can be more social.

Discussion

During this research we had to deal with some problems. One main problem was the fact that the majority of the elderly don't speak English. Since our group was consisted of two foreign students and one Dutch, it is obvious that there was a problem with the communication between the target group and the researchers. This problem was more intense at the time of the interviews, where only the one Dutch member of our group was able to interview the elderly, which cost us a lot of time. Thereby the answers were giving on the questions in the interview, so the answers are the interpretation of the interviewer not on the questionnaire.

Only twenty five physical active and mental healthy people were interviewed, that is a very small number for real statistic results. On the other hand all twenty five gave mostly the same answers, which is why we mentioned the answer-range by the results.

Our research centered at the Cordaan nursing home, where we did the interviews with the elder people but also talk with the people who work there. We chose that specific nursing home, because it is located almost at the center of Osdorp. We didn't talk with the other nursing homes and community centers of that area. At this point it should be emphasized that our research is a pilot-pilot study and the final research will take place from the RIVM.

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Appendix 1.

ID # _____

Neighborhood Environment Walkability Scale (NEWS)

We would like to find out more information about the way that you perceive or think about your neighborhood. Please answer the following questions about your neighbourhood and yourself.

I. Types of residences in your neighborhood

Please circle the answer that best applies to you and your neihborhood.

1. How common are <u>detached single-family</u> in your immediate neighborhood?

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

2. *How common are <u>townhouses or row houses of 1-3 stories</u> in your immediate neighborhood?*

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

3. *How common are <u>apartments or condos 1-3 stories</u> in your immediate neighborhood?*

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

4. *How common are <u>apartments or condos 4-6 stories</u> in your immediate neighborhood?*

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

5. *How common are <u>apartments or condos 7-12 stories</u> in your immediate neighborhood?*

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

6. *How common are <u>apartments or condos more than 13 stories</u> in your immediate neighborhood?*

1. None	*2. A few*	*3. Some*	*4. Most*	*5. All*

J. Stores, facilities, and other things in your neigborhood

About how long would it take to get from your home to the nearest businesses or facilities listed below if you walked to them? Please put only one check mark (√) for each business or facility.

	1-5 min	6-10 min	11-20 min	20-30 min	30+ min	Don't know
Example: gas station	√					
1. Convenience/ small grocery store						
2. Supermarket						
3. Hardware store						
4. Fruit/ vegetable market						
5. Laundry/ dry cleaners						
6. Clothing store						
7. Post office						
8. Library						
9. Book store						
10. Fast food restaurant						
	1-5 min	6-10 min	11-20 min	20-30 min	30+ min	Don't know
11. Coffee place						
12. Bank/ credit union						
13. Non-fast food restaurant						
14. Video store						
15. Pharmacy/ drug store						
16. Salon/ barber shop						
17. Your job Check here ___ if not applicable						
18. Bus stop						
19. Train stop						
20. Tram stop						
21. Park						
22. Recreation centre						
23. Gym or fitness facility						

K. Access to services

Please circle the answer that best applies to you and your neighborhood. Both local and within walking distance mean within a 10-15 minute walk from your home.

1. Stores are within easy walking distance of my home.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. There are many places to go within easy walking distance of my home.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. It is easy to walk to a transit stop (bus, train) from my home.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

L. Streets in my neighborhood

Please circle the answer that best applies to you and your neighborhood.

1. The distance between intersections in my neighborhood is usually short (100 yards or less; the length of a football field or less).

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. There are many alternative routes for getting form place to place in my neighborhood (I don't have to go the same way every time.)

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

M. Places for walking

Please circle the answer that best applies to you and your neighborhood.

1. There are sidewalks on most of the streets in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. Sidewalks are separated from the road/ traffic in my neighborhood by parked cars.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. There is a grass/ dirt strip that separates the streets from the sidewalks in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

4. My neighborhood streets are well lit at night

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

5. Walkers on the streets in my neighborhood can be easily seen by people in their homes.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

6. There are crosswalks and pedestrian signals to help walkers cross busy streets in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

N. Neighborhood surroundings/ aesthetics

Please circle the answer that best applies to you and your neighborhood.

1. There are trees along the streets in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. There are many interesting things to look at while walking in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. There are many attractive natural sights in my neighborhood (such as landscaping, views).

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

4. There are attractive buildings/homes in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

O. Traffic hazards

Please circle the answer that best applies to you and your neighborhood.

1. There is so much traffic along nearby streets that it makes it difficult or unpleasant to walk in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. The speed of traffic on most nearby streets is usually slow (30mph or less).

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. Most drivers exceed the posted speed limits while driving in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

P. Crime

1. There is a high crime rate in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. The crime rate in my neighborhood makes it unsafe to go on walks during the day.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. The crime rate in my neighborhood makes it unsafe to go on walk at night.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

Q. Single items that did not load on other factors

1. Parking is difficult in local shopping areas.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

2. The streets in my neighborhood do not have many cul-de-sacs (dead –end streets).

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

3. The streets in my neighborhood are hilly, making in my neighborhood difficult to walk in.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

4. There are major barriers to walking in my local area that make it hard to get from place to place (for example, freeways, railways lines, rivers).

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

5. I see and speak to other people when I am walking in my neighborhood.

1 strongly disagree	*2 somewhat disagree*	*3 somewhat agree*	*4 strongly agree*

Appendix 2

ID # _____

Neighborhood Environment Walkability Scale (NEWS)

We zouden graag meer informatie willen weten over hoe u over uw buurt denkt en hoe u deze waarneemt.

Zou u daarom zo vriendelijke willen zijn en onderstaande vragen beantwoorden?

A. Soorten woningen in uw buurt

Omcirkel het antwoord dat het best op u en uw buurt van toepassing is.

7. Hoe vaak zijn er vrijstaande eengezinswoningen in uw directe omgeving?

6. Geen	*7. Enkele*	*8. Sommige*	*9. Vaak*	*10. Alle*

8. *Hoe vaak komen herenhuizen or rijtjeshuizen van 1-3 verdiepingen voor in uw directe omgeving?*

1. Geen	*2. Enkele*	*3. Sommige*	*4. Vaak*	*5. Alle*

9. *Hoe vaak komen appartementen of flats van 1-3 verdiepingen voor in uw directe omgeving?*

1. Geen	*2. Enkele*	*3. Sommige*	*4. Vaak*	*5. Alle*

10. *Hoe vaak komen appartementen of flats van 4-6 verdiepingen voor in uw directe omgeving?*

1. Geen	*2. Enkele*	*3. Sommige*	*4. Vaak*	*5. Alle*

11. *Hoe vaak komen appartementen of flats van 7-12 verdiepingen voor in uw directe omgeving?*

1. Geen	*2. Enkele*	*3. Sommige*	*4. Vaak*	*5. Alle*

6. *Hoe vaak komen appartementen of flats met meer dan 13 verdiepingen voor in uw directe omgeving?*

1. Geen	*2. Enkele*	*3. Sommige*	*4. Vaak*	*5. Alle*

B. Winkels, voorzieningen, en andere dingen in uw buurt

Hoe lang duurt een wandeling van uw huis naar de dichtstbijzijnde bedrijven of voorzieningen hieronder vermeld? Zet slechts één vinkje(√) voor ieder bedrijf of voorziening.

	1-5 min	6-10 min	11-20 min	20-30 min	30+ min	Geen idee
Voorbeeld: benzinepomp	√					
1. Kleine supermarkt						
2. Grote supermarkt						
3. Fruit-/ groentewinkel						
4. Wasserij/ stomerij						
5. Kledingwinkel						
6. Postkantoor						
7. Bibliotheek						
8. Boekhandel						
9. Fast food restaurant						
10. Café						
11. Bankgebouw						
12. Non-fast food restaurant						
13. Videotheek						
14. Apotheek/ drogist						
	1-5 min	6-10 min	11-20 min	20-30 min	30+ min	Geen idee
15. Kapsalon						
16. Uw werkplek Vink hier __ indien niet van toepassing						
17. Bushalte						
18. Treinstation						
19. Tramhalte						
20. Park						
21. Recreatiecentrum						
22. Sportschool of fitnesscentrum						

C. Toegang tot diensten

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving. Zowel lokaal en op loopafstand betekenen binnen een 10-15minuten lopen van uw huis.

1. Winkels zijn op loopafstand van mijn huis.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

2. Er zijn veel plaatsen om heen te gaan op loopafstand van mijn huis.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

3. Het is gemakkelijk om te lopen naar een halte (bus, tram, trein) van mijn huis.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

D. Straten in uw buurt

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

3. De afstand tussen kruispunten in mijn buurt is meestal kort (100m of minder; de lengte van een voetbalveld of minder).

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

4. Er zijn veel alternatieve routes om van plaats tot plaats te komen in mijn buurt (ik hoef niet elke keer dezelfde route te nemen).

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

E. Plaatsen om te wandelen

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

7. Er zijn trottoirs op de meeste van de straten in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

8. Trottoirs zijn gescheiden van de weg/ verkeer in mijn buurt door geparkeerde auto's.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

9. Er is een grasstrook/ goot die de straten scheidt van de trottoirs in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

10. Mijn buurtstraten zijn 's nachts goed verlicht.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

11. Wandelaars in de straten in mijn buurt zijn gemakkelijk zichtbaar door mensen in hun huizen.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

12. Er zijn oversteekplaatsen en zebrapaden die wandelaars helpen om de drukke straten over te steken.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

F. Buurt omgeving/welstand

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

5. Er zijn bomen langs de straten in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

6. Er zijn veel interessante dingen om naar te kijken tijdens het wandelen in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

7. Er zijn veel mooie natuurlijke bezienswaardigheden in mijn buurt (zoals landschapsarchitectuur, uitzicht).

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

8. Er zijn mooie gebouwen/ woningen in mijn buurt

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

G. Verkeer gevaren

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

1. Er is zoveel verkeer langs de nabijgelegen straten dat het moeilijk of onaangenaam is om te lopen in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

2. De snelheid van het verkeer in de nabijgelegen straten verloopt doorgaans traag (30km/h of minder).

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

3. De meeste bestuurders overschrijden de maximale snelheid tijdens het rijden in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

H. Criminaliteit

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

4. Er is een hoog criminaliteit gehalte in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

5. De criminaliteit in mijn maakt het onveilig in mijn buurt om overdag te gaan wandelen

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

6. De criminaliteit in mijn maakt het onveilig in mijn buurt om ‘s nachts te gaan wandelen.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

I. Enkele items die niet bij andere delen pasten

Omcirkel het antwoord dat het best van toepassing is voor u en uw omgeving.

6. Parkeren is moeilijk bij lokale winkelcentra

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

7. De straten in mijn buurt zijn niet veel doodlopende wegen.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

8. De straten in mijn buurt zijn heuvelachtig waardoor mijn buurt moeilijk begaanbaar is.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

9. Er zijn grote belemmeringen voor het lopen in mijn buurt die het moeilijk maken om van plaats tot plaats te komen (bijvoorbeeld snelwegen, spoorlijnen, rivieren).

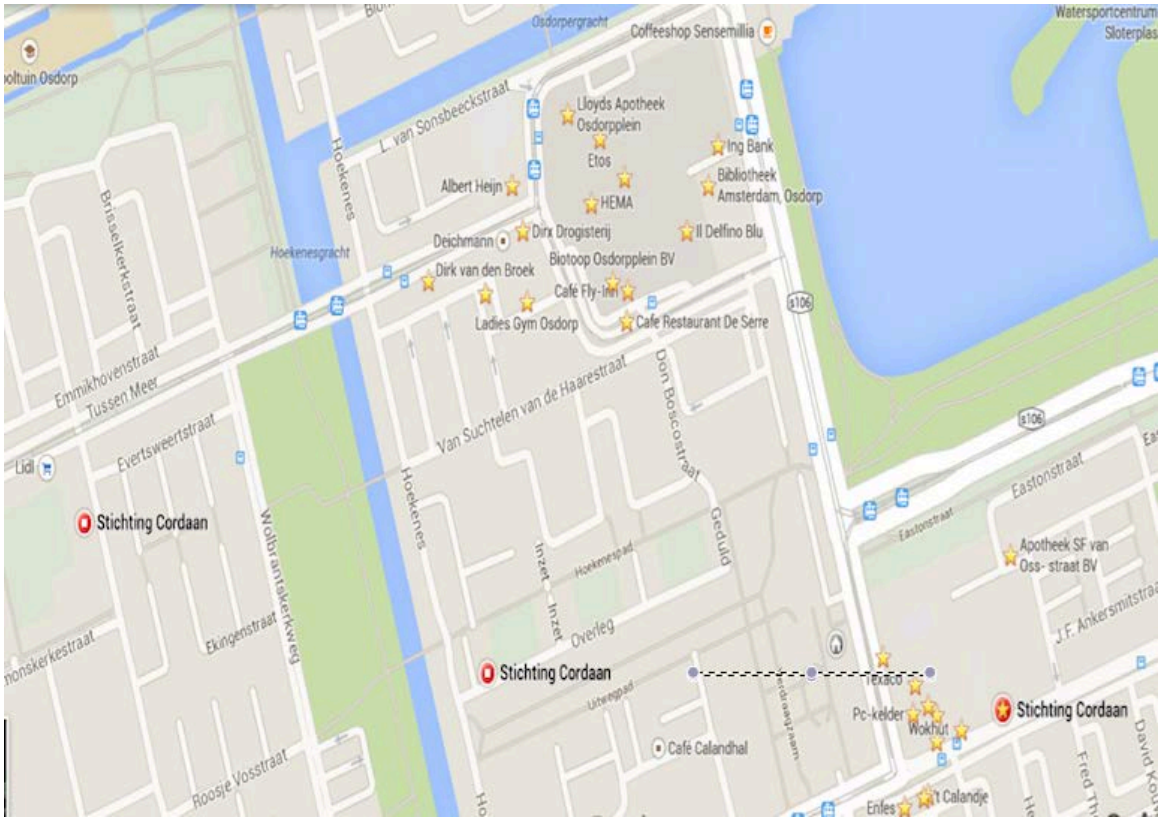
1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

10. Ik zie en spreek met andere mensen wanneer ik loop in mijn buurt.

1 Zeer oneens	*2 Enigszins oneens*	*3 Enigszins mee eens*	*4 Helemaal mee eens*

Appendix 3

Map



Appendix 4

Scoring for the Neighborhood Environment Walkability Scale – Abbreviated (NEWS-A)

Subscale A: Residential density (higher score denoting higher walkability)

A1. How common are detached single-family residences in your immediate neighborhood?

A2. How common are townhouses or row houses of 1-3 stories in your immediate neighborhood?

A3. How common are apartments or condos 1-3 stories in your immediate neighborhood?

A4. How common are apartments or condos 4-6 stories in your immediate neighborhood?

A5. How common are apartments or condos 7-12 stories in your immediate neighborhood?

A6. How common are apartments or condos more than 13 stories in your immediate neighborhood?

Responses:

None (1)A few (2) Some (3) Most (4) All (5)

Score on subscale:

A = A1 + (12 * A2) + (10 * A3) + (25 * A4) + (50 * A5) + (75 * A6)

Subscale B: Land-use mix – diversity (higher score denoting higher walkability)

B1. Convenience/small grocery store

B2. Supermarket

B3. Fruit/vegetable market

B4. Laundry/dry cleaners

B5. Clothing store

B6. Post office

B7. Library

B8. Book store

B9. Fast food restaurant

B10. Coffee place

B11. Bank/credit union

B12. Non-fast food restaurant

B13. Video store

B14. Pharmacy/drug store

B15. Salon/barber shop

B16. Bus or trolley stop

B17. Train station

B18. Tram station

B19. Park

B20. Recreation center

B21. Gym or fitness facility

Responses:

1-5 min (5) 6-10 min (4) 11-20 min (3) 21-30 min (2) 31+ min (1) don't know (1)

Note:

A 'don't know' response is coded as a "1" because if it is not known whether the facility is within walking distance, the actual walk is likely more than 31 minutes.

Score on subscale:

Mean of item responses. B = (B1+ … + B21) / 21

Subscale C: Land-use mix – access (higher score denoting higher walkability)

C1. Stores are within easy walking distance.

C2. There are many places to go within walking distance at my home.

C3. It is easy to walk to a transit stop (bus, train) from my home.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

Mean of item responses. C = (C1 + C2 + C3)/3

Subscale D: Street connectivity (higher score denoting higher walkability)

D1. The distance between intersections in my neighborhood is usually short.

D2. There are many alternative routes for getting from place to place in my neighborhood.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

Mean of item responses. D = (D1 + D2)/2

Subscale E: Infrastructure and safety for walking (higher score denoting higher walkability)

E1. There are sidewalks on most of the streets in my neighborhood..

E2. Sidewalks are separated from the road/traffic in my neighborhood by parked cars.

E3. There is a grass/dirt strip that separates the streets from the sidewalks in my neighborhood.

E4. My neighborhood is well lit at night.

E5. Walkers and bikers on the streets in my neighborhood can be easily seen by people in their homes.

E6. There are crosswalks and pedestrian signals to help walkers cross busy streets in my neighborhood.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale

E = (E1 + E2 + E3 + E4 + E5 + E6) / 6

Subscale F: Aesthetics (higher score denoting higher walkability)

F1. There are trees along the streets in my neighborhood.

F2. There are many interesting things to look at while walking in my neighborhood.

F3. There are many attractive natural sights in my neighborhood.

F4. There are attractive buildings/homes in my neighborhood.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

F = (F1 + F2 + F3 + F4) / 4

Subscale G: Traffic hazards (higher score denoting lower walkability)

G1. There is so much traffic along nearby streets that it makes it difficult or unpleasant to walk in my neighborhood.

G2. The speed of traffic on most nearby streets is usually slow.

G3. Most drivers exceed the posted limits while driving in my neighborhood.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

(G1 + 5 - G2 + G3) / 3

Subscale H: Crime (higher score denoting lower walkability)

H1. There is a high crime rate in my neighborhood.

H2. The crime rate in my neighborhood makes it unsafe to go o

H3. The crime rate in my neighborhood makes it unsafe to go on walks at night.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

H = (H1 + H2 + H3) / 3

Single-item subscale I: Lack of parking (higher score denoting higher walkability)

I1. Parking is difficult in local shopping areas.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

I = I1

Single-item subscale J: Lack of cul-de-sacs (higher score denoting higher walkability)

J1. The streets in my neighborhood do not have many cul-de-sacs.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

J = J1

Single-item subscale K: Hilliness (higher score denoting lower walkability)

K1. The streets in my neighborhood are hilly, making my neighborhood difficult to walk in.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale K = K1

Single-item subscale L: Physical barriers (higher score denoting lower walkability)

L1. There are major barriers to walking in my neighborhood that make it hard to get from place to place (for example, freeways, railway lines, rivers, canyons, hillsides).

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

L = L1

Single-item subscaleM: Social barriers (higher score denoting lower walkability)

M1. I see and speak to other people when I am waling in my neighborhood.

Responses:

Strongly disagree (1) Somewhat disagree (2) Somewhat agree (3) Strongly agree (4)

Score on subscale:

M = M1

Appendix 4

The descriptives of the statistical analysis of the variables.

Descriptives

			Statistic	Std. Error
A	Mean		1128,9200	10,52108
	95% Confidence Interval for Mean	Lower Bound	1107,2056	
		Upper Bound	1150,6344	
	5% Trimmed Mean		1127,9556	
	Median		1135,0000	
	Variance		2767,327	
	Std. Deviation		52,60539	
	Minimum		1021,00	
	Maximum		1246,00	
	Range		225,00	
	Interquartile Range		52,00	
	Skewness		,650	,464
	Kurtosis		1,000	,902
B	Mean		178,5455	5,23399
	95% Confidence Interval for Mean	Lower Bound	167,7430	
		Upper Bound	189,3479	
	5% Trimmed Mean		178,4596	
	Median		181,8182	
	Variance		684,866	
	Std. Deviation		26,16994	
	Minimum		131,82	
	Maximum		227,27	
	Range		95,45	
	Interquartile Range		38,64	
	Skewness		-,111	,464
	Kurtosis		-,514	,902
C	Mean		1,4133	,13372
	95% Confidence Interval for Mean	Lower Bound	1,1373	
		Upper Bound	1,6893	
	5% Trimmed Mean		1,4926	
	Median		1,6667	
	Variance		,447	
	Std. Deviation		,66861	
	Minimum		-1,00	
	Maximum		2,00	

	Range		3,00	
	Interquartile Range		1,00	
	Skewness		-1,941	,464
	Kurtosis		6,031	,902
	Mean		,8400	,12152
	95% Confidence Interval for	Lower Bound	,5892	
	Mean	Upper Bound	1,0908	
	5% Trimmed Mean		,8944	
	Median		1,0000	
	Variance		,369	
D	Std. Deviation		,60759	
	Minimum		-1,00	
	Maximum		1,50	
	Range		2,50	
	Interquartile Range		,25	
	Skewness		-1,443	,464
	Kurtosis		2,250	,902
	Mean		,9333	,08714
	95% Confidence Interval for	Lower Bound	,7535	
	Mean	Upper Bound	1,1132	
	5% Trimmed Mean		,9500	
	Median		1,0000	
	Variance		,190	
E	Std. Deviation		,43568	
	Minimum		,00	
	Maximum		1,50	
	Range		1,50	
	Interquartile Range		,83	
	Skewness		-,466	,464
	Kurtosis		-,879	,902
	Mean		1,0500	,09014
	95% Confidence Interval for	Lower Bound	,8640	
	Mean	Upper Bound	1,2360	
	5% Trimmed Mean		1,0417	
	Median		1,0000	
	Variance		,203	
F	Std. Deviation		,45069	
	Minimum		,50	
	Maximum		1,75	
	Range		1,25	
	Interquartile Range		,63	
	Skewness		,417	,464
	Kurtosis		-1,140	,902

	Mean		-,0267	,09798
	95% Confidence Interval for	Lower Bound	-,2289	
	Mean	Upper Bound	,1756	
	5% Trimmed Mean		,0074	
	Median		,3333	
	Variance		,240	
G	Std. Deviation		,48990	
	Minimum		-1,00	
	Maximum		,33	
	Range		1,33	
	Interquartile Range		,67	
	Skewness		-,964	,464
	Kurtosis		-,474	,902
	Mean		-1,8000	,07454
	95% Confidence Interval for	Lower Bound	-1,9538	
	Mean	Upper Bound	-1,6462	
	5% Trimmed Mean		-1,8333	
	Median		-2,0000	
	Variance		,139	
H	Std. Deviation		,37268	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,33	
	Skewness		1,478	,464
	Kurtosis		,474	,902
	Mean		-1,3200	,09522
	95% Confidence Interval for	Lower Bound	-1,5165	
	Mean	Upper Bound	-1,1235	
	5% Trimmed Mean		-1,3000	
	Median		-1,0000	
	Variance		,227	
I	Std. Deviation		,47610	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		-,822	,464
	Kurtosis		-1,447	,902
	Mean		,8400	,20559
	95% Confidence Interval for	Lower Bound	,4157	
J	Mean	Upper Bound	1,2643	
	5% Trimmed Mean		,9222	

	Median		1,0000	
	Variance		1,057	
	Std. Deviation		1,02794	
	Minimum		-2,00	
	Maximum		2,00	
	Range		4,00	
	Interquartile Range		,00	
	Skewness		-1,406	,464
	Kurtosis		1,786	,902
	Mean		-1,9200	,05538
	95% Confidence Interval for	Lower Bound	-2,0343	
	Mean	Upper Bound	-1,8057	
	5% Trimmed Mean		-1,9667	
	Median		-2,0000	
	Variance		,077	
K	Std. Deviation		,27689	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,00	
	Skewness		3,298	,464
	Kurtosis		9,641	,902
	Mean		-1,2800	,16852
	95% Confidence Interval for	Lower Bound	-1,6278	
	Mean	Upper Bound	-,9322	
	5% Trimmed Mean		-1,3889	
	Median		-1,0000	
	Variance		,710	
L	Std. Deviation		,84261	
	Minimum		-2,00	
	Maximum		2,00	
	Range		4,00	
	Interquartile Range		1,00	
	Skewness		2,412	,464
	Kurtosis		9,169	,902
	Mean		,5200	,17436
	95% Confidence Interval for	Lower Bound	,1601	
	Mean	Upper Bound	,8799	
M	5% Trimmed Mean		,5778	
	Median		1,0000	
	Variance		,760	
	Std. Deviation		,87178	

	Minimum	-1,00	
	Maximum	1,00	
	Range	2,00	
	Interquartile Range	1,00	
	Skewness	-1,297	,464
	Kurtosis	-,354	,902

Descriptives

			Statistic	Std. Error
a1	Mean		7,0400	,14697
	95% Confidence Interval for Mean	Lower Bound	6,7367	
		Upper Bound	7,3433	
	5% Trimmed Mean		7,0444	
	Median		7,0000	
	Variance		,540	
	Std. Deviation		,73485	
	Minimum		6,00	
	Maximum		8,00	
	Range		2,00	
	Interquartile Range		1,50	
	Skewness		-,064	,464
	Kurtosis		-1,035	,902
a2	Mean		7,4400	,11662
	95% Confidence Interval for Mean	Lower Bound	7,1993	
		Upper Bound	7,6807	
	5% Trimmed Mean		7,4778	
	Median		7,0000	
	Variance		,340	
	Std. Deviation		,58310	
	Minimum		6,00	
	Maximum		8,00	
	Range		2,00	
	Interquartile Range		1,00	
	Skewness		-,434	,464
	Kurtosis		-,669	,902
a3	Mean		7,3600	,09798
	95% Confidence Interval for Mean	Lower Bound	7,1578	
		Upper Bound	7,5622	
	5% Trimmed Mean		7,3444	

	Median		7,0000	
	Variance		,240	
	Std. Deviation		,48990	
	Minimum		7,00	
	Maximum		8,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		,621	,464
	Kurtosis		-1,762	,902
a4	Mean		7,0400	,07024
	95% Confidence Interval for Mean	Lower Bound	6,8950	
		Upper Bound	7,1850	
	5% Trimmed Mean		7,0333	
	Median		7,0000	
	Variance		,123	
	Std. Deviation		,35119	
	Minimum		6,00	
	Maximum		8,00	
	Range		2,00	
	Interquartile Range		,00	
	Skewness		,673	,464
	Kurtosis		6,679	,902
a5	Mean		6,6000	,10000
	95% Confidence Interval for Mean	Lower Bound	6,3936	
		Upper Bound	6,8064	
	5% Trimmed Mean		6,6111	
	Median		7,0000	
	Variance		,250	
	Std. Deviation		,50000	
	Minimum		6,00	
	Maximum		7,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		-,435	,464
	Kurtosis		-1,976	,902
a6	Mean		6,0400	,09092
	95% Confidence Interval for Mean	Lower Bound	5,8523	
		Upper Bound	6,2277	
	5% Trimmed Mean		6,0444	
	Median		6,0000	

	Variance	,207	
	Std. Deviation	,45461	
	Minimum	5,00	
	Maximum	7,00	
	Range	2,00	
	Interquartile Range	,00	
	Skewness	,194	,464
	Kurtosis	2,710	,902

Descriptives

			Statistic	Std. Error
b1	Mean		80,0000	8,66025
	95% Confidence Interval for Mean	Lower Bound	62,1261	
		Upper Bound	97,8739	
	5% Trimmed Mean		75,0000	
	Median		50,0000	
	Variance		1875,000	
	Std. Deviation		43,30127	
	Minimum		50,00	
	Maximum		200,00	
	Range		150,00	
	Interquartile Range		50,00	
	Skewness		1,757	,464
	Kurtosis		3,094	,902
b2	Mean		138,0000	10,51982
	95% Confidence Interval for Mean	Lower Bound	116,2882	
		Upper Bound	159,7118	
	5% Trimmed Mean		138,8889	
	Median		100,0000	
	Variance		2766,667	
	Std. Deviation		52,59911	
	Minimum		50,00	
	Maximum		200,00	
	Range		150,00	
	Interquartile Range		100,00	
	Skewness		,291	,464
	Kurtosis		-1,758	,902
b3	Mean		354,0000	14,69694
	95% Confidence Interval for	Lower Bound	323,6670	

	Mean	Upper Bound	384,3330	
	5% Trimmed Mean		360,0000	
	Median		400,0000	
	Variance		5400,000	
	Std. Deviation		73,48469	
	Minimum		200,00	
	Maximum		400,00	
	Range		200,00	
	Interquartile Range		50,00	
	Skewness		-1,519	,464
	Kurtosis		,853	,902
b4	Mean		90,0000	12,24745
	95% Confidence Interval for	Lower Bound	64,7225	
	Mean	Upper Bound	115,2775	
	5% Trimmed Mean		81,6667	
	Median		50,0000	
	Variance		3750,000	
	Std. Deviation		61,23724	
	Minimum		50,00	
	Maximum		300,00	
	Range		250,00	
	Interquartile Range		50,00	
	Skewness		2,189	,464
	Kurtosis		5,229	,902
b5	Mean		228,0000	15,83246
	95% Confidence Interval for	Lower Bound	195,3234	
	Mean	Upper Bound	260,6766	
	5% Trimmed Mean		231,1111	
	Median		200,0000	
	Variance		6266,667	
	Std. Deviation		79,16228	
	Minimum		100,00	
	Maximum		300,00	
	Range		200,00	
	Interquartile Range		100,00	
	Skewness		-,564	,464
	Kurtosis		-1,139	,902
b6	Mean		144,0000	11,66190
	95% Confidence Interval for	Lower Bound	119,9310	
	Mean	Upper Bound	168,0690	

	5% Trimmed Mean		138,8889	
	Median		100,0000	
	Variance		3400,000	
	Std. Deviation		58,30952	
	Minimum		100,00	
	Maximum		300,00	
	Range		200,00	
	Interquartile Range		100,00	
	Skewness		,936	,464
	Kurtosis		-,003	,902
b7	Mean		216,0000	16,00000
	95% Confidence Interval for	Lower Bound	182,9776	
	Mean	Upper Bound	249,0224	
	5% Trimmed Mean		217,7778	
	Median		200,0000	
	Variance		6400,000	
	Std. Deviation		80,00000	
	Minimum		100,00	
	Maximum		300,00	
	Range		200,00	
	Interquartile Range		150,00	
	Skewness		-,307	,464
	Kurtosis		-1,344	,902
b8	Mean		182,0000	10,36018
	95% Confidence Interval for	Lower Bound	160,6176	
	Mean	Upper Bound	203,3824	
	5% Trimmed Mean		183,3333	
	Median		200,0000	
	Variance		2683,333	
	Std. Deviation		51,80090	
	Minimum		50,00	
	Maximum		300,00	
	Range		250,00	
	Interquartile Range		,00	
	Skewness		-,897	,464
	Kurtosis		1,642	,902
b9	Mean		218,0000	15,51344
	95% Confidence Interval for	Lower Bound	185,9818	
	Mean	Upper Bound	250,0182	
	5% Trimmed Mean		217,7778	

	Median		200,0000	
	Variance		6016,667	
	Std. Deviation		77,56718	
	Minimum		100,00	
	Maximum		350,00	
	Range		250,00	
	Interquartile Range		100,00	
	Skewness		-,152	,464
	Kurtosis		-,996	,902
b10	Mean		78,0000	7,11805
	95% Confidence Interval for Mean	Lower Bound	63,3091	
		Upper Bound	92,6909	
	5% Trimmed Mean		73,8889	
	Median		50,0000	
	Variance		1266,667	
	Std. Deviation		35,59026	
	Minimum		50,00	
	Maximum		200,00	
	Range		150,00	
	Interquartile Range		50,00	
	Skewness		1,655	,464
	Kurtosis		4,328	,902
b11	Mean		84,0000	8,52447
	95% Confidence Interval for Mean	Lower Bound	66,4063	
		Upper Bound	101,5937	
	5% Trimmed Mean		79,4444	
	Median		100,0000	
	Variance		1816,667	
	Std. Deviation		42,62237	
	Minimum		50,00	
	Maximum		200,00	
	Range		150,00	
	Interquartile Range		50,00	
	Skewness		1,576	,464
	Kurtosis		2,730	,902
b12	Mean		228,0000	12,27464
	95% Confidence Interval for Mean	Lower Bound	202,6664	
		Upper Bound	253,3336	
	5% Trimmed Mean		231,1111	
	Median		200,0000	

	Variance		3766,667	
	Std. Deviation		61,37318	
	Minimum		100,00	
	Maximum		300,00	
	Range		200,00	
	Interquartile Range		100,00	
	Skewness		-,224	,464
	Kurtosis		-,445	,902
b13	Mean		128,0000	9,16515
	95% Confidence Interval for Mean	Lower Bound	109,0841	
		Upper Bound	146,9159	
	5% Trimmed Mean		125,5556	
	Median		100,0000	
	Variance		2100,000	
	Std. Deviation		45,82576	
	Minimum		100,00	
	Maximum		200,00	
	Range		100,00	
	Interquartile Range		100,00	
	Skewness		1,044	,464
	Kurtosis		-,998	,902
b14	Mean		342,0000	15,45962
	95% Confidence Interval for Mean	Lower Bound	310,0929	
		Upper Bound	373,9071	
	5% Trimmed Mean		346,6667	
	Median		350,0000	
	Variance		5975,000	
	Std. Deviation		77,29812	
	Minimum		200,00	
	Maximum		400,00	
	Range		200,00	
	Interquartile Range		75,00	
	Skewness		-1,181	,464
	Kurtosis		-,159	,902
b15	Mean		168,0000	9,52190
	95% Confidence Interval for Mean	Lower Bound	148,3478	
		Upper Bound	187,6522	
	5% Trimmed Mean		170,0000	
	Median		200,0000	
	Variance		2266,667	

	Std. Deviation		47,60952	
	Minimum		100,00	
	Maximum		200,00	
	Range		100,00	
	Interquartile Range		100,00	
	Skewness		-,822	,464
	Kurtosis		-1,447	,902
b16	Mean		250,0000	13,54006
	95% Confidence Interval for Mean	Lower Bound	222,0547	
		Upper Bound	277,9453	
	5% Trimmed Mean		253,3333	
	Median		300,0000	
	Variance		4583,333	
	Std. Deviation		67,70032	
	Minimum		100,00	
	Maximum		350,00	
	Range		250,00	
	Interquartile Range		100,00	
	Skewness		-,766	,464
	Kurtosis		-,230	,902
b17	Mean		78,0000	7,11805
	95% Confidence Interval for Mean	Lower Bound	63,3091	
		Upper Bound	92,6909	
	5% Trimmed Mean		73,8889	
	Median		50,0000	
	Variance		1266,667	
	Std. Deviation		35,59026	
	Minimum		50,00	
	Maximum		200,00	
	Range		150,00	
	Interquartile Range		50,00	
	Skewness		1,655	,464
	Kurtosis		4,328	,902
b18	Mean		168,0000	9,52190
	95% Confidence Interval for Mean	Lower Bound	148,3478	
		Upper Bound	187,6522	
	5% Trimmed Mean		170,0000	
	Median		200,0000	
	Variance		2266,667	
	Std. Deviation		47,60952	

	Minimum		100,00	
	Maximum		200,00	
	Range		100,00	
	Interquartile Range		100,00	
	Skewness		-,822	,464
	Kurtosis		-1,447	,902
b19	Mean		98,0000	13,68698
	95% Confidence Interval for	Lower Bound	69,7515	
	Mean	Upper Bound	126,2485	
	5% Trimmed Mean		90,5556	
	Median		50,0000	
	Variance		4683,333	
	Std. Deviation		68,43488	
	Minimum		50,00	
	Maximum		300,00	
	Range		250,00	
	Interquartile Range		50,00	
	Skewness		1,561	,464
	Kurtosis		1,873	,902
b20	Mean		136,0000	9,79796
	95% Confidence Interval for	Lower Bound	115,7780	
	Mean	Upper Bound	156,2220	
	5% Trimmed Mean		134,4444	
	Median		100,0000	
	Variance		2400,000	
	Std. Deviation		48,98979	
	Minimum		100,00	
	Maximum		200,00	
	Range		100,00	
	Interquartile Range		100,00	
	Skewness		,621	,464
	Kurtosis		-1,762	,902
b21	Mean		188,0000	8,79394
	95% Confidence Interval for	Lower Bound	169,8502	
	Mean	Upper Bound	206,1498	
	5% Trimmed Mean		187,7778	
	Median		200,0000	
	Variance		1933,333	
	Std. Deviation		43,96969	
	Minimum		100,00	

	Maximum		300,00	
	Range		200,00	
	Interquartile Range		,00	
	Skewness		-,685	,464
	Kurtosis		2,279	,902
b22	Mean		332,0000	18,00000
	95% Confidence Interval for Mean	Lower Bound	294,8498	
		Upper Bound	369,1502	
	5% Trimmed Mean		341,1111	
	Median		400,0000	
	Variance		8100,000	
	Std. Deviation		90,00000	
	Minimum		100,00	
	Maximum		400,00	
	Range		300,00	
	Interquartile Range		100,00	
	Skewness		-1,459	,464
	Kurtosis		1,794	,902

Descriptives

			Statistic	Std. Error
c1	Mean		1,3600	,14000
	95% Confidence Interval for Mean	Lower Bound	1,0711	
		Upper Bound	1,6489	
	5% Trimmed Mean		1,4333	
	Median		1,0000	
	Variance		,490	
	Std. Deviation		,70000	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		1,00	
	Skewness		-1,435	,464
	Kurtosis		3,960	,902
c2	Mean		1,3600	,14000
	95% Confidence Interval for Mean	Lower Bound	1,0711	
		Upper Bound	1,6489	
	5% Trimmed Mean		1,4333	

	Median		1,0000	
	Variance		,490	
	Std. Deviation		,70000	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		1,00	
	Skewness		-1,435	,464
	Kurtosis		3,960	,902
c3	Mean		1,5200	,14283
	95% Confidence Interval for Mean	Lower Bound	1,2252	
		Upper Bound	1,8148	
	5% Trimmed Mean		1,6111	
	Median		2,0000	
	Variance		,510	
	Std. Deviation		,71414	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		1,00	
	Skewness		-1,941	,464
	Kurtosis		5,183	,902

Descriptives

			Statistic	Std. Error
d1	Mean		1,1600	,12490
	95% Confidence Interval for Mean	Lower Bound	,9022	
		Upper Bound	1,4178	
	5% Trimmed Mean		1,2111	
	Median		1,0000	
	Variance		,390	
	Std. Deviation		,62450	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		,50	

	Skewness		-1,226	,464
	Kurtosis		5,300	,902
d2	Mean		,5200	,17436
	95% Confidence Interval for Mean	Lower Bound	,1601	
		Upper Bound	,8799	
	5% Trimmed Mean		,5778	
	Median		1,0000	
	Variance		,760	
	Std. Deviation		,87178	
	Minimum		-1,00	
	Maximum		1,00	
	Range		2,00	
	Interquartile Range		1,00	
	Skewness		-1,297	,464
	Kurtosis		-,354	,902

Descriptives[a]

			Statistic	Std. Error
e1	Mean		1,6000	,10000
	95% Confidence Interval for Mean	Lower Bound	1,3936	
		Upper Bound	1,8064	
	5% Trimmed Mean		1,6111	
	Median		2,0000	
	Variance		,250	
	Std. Deviation		,50000	
	Minimum		1,00	
	Maximum		2,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		-,435	,464
	Kurtosis		-1,976	,902
e2	Mean		1,4000	,10000
	95% Confidence Interval for Mean	Lower Bound	1,1936	
		Upper Bound	1,6064	
	5% Trimmed Mean		1,3889	
	Median		1,0000	
	Variance		,250	

	Std. Deviation		,50000	
	Minimum		1,00	
	Maximum		2,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		,435	,464
	Kurtosis		-1,976	,902
e3	Mean		1,0400	,10770
	95% Confidence Interval for Mean	Lower Bound	,8177	
		Upper Bound	1,2623	
	5% Trimmed Mean		1,0778	
	Median		1,0000	
	Variance		,290	
	Std. Deviation		,53852	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		,00	
	Skewness		-1,693	,464
	Kurtosis		9,229	,902
e4	Mean		,2800	,19596
	95% Confidence Interval for Mean	Lower Bound	-,1244	
		Upper Bound	,6844	
	5% Trimmed Mean		,3111	
	Median		1,0000	
	Variance		,960	
	Std. Deviation		,97980	
	Minimum		-1,00	
	Maximum		1,00	
	Range		2,00	
	Interquartile Range		2,00	
	Skewness		-,621	,464
	Kurtosis		-1,762	,902
e5	Mean		,2800	,19596
	95% Confidence Interval for Mean	Lower Bound	-,1244	
		Upper Bound	,6844	
	5% Trimmed Mean		,3111	
	Median		1,0000	
	Variance		,960	
	Std. Deviation		,97980	

	Minimum		-1,00	
	Maximum		1,00	
	Range		2,00	
	Interquartile Range		2,00	
	Skewness		-,621	,464
	Kurtosis		-1,762	,902

Descriptives

			Statistic	Std. Error
f1	Mean		1,6400	,09798
	95% Confidence Interval for Mean	Lower Bound	1,4378	
		Upper Bound	1,8422	
	5% Trimmed Mean		1,6556	
	Median		2,0000	
	Variance		,240	
	Std. Deviation		,48990	
	Minimum		1,00	
	Maximum		2,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		-,621	,464
	Kurtosis		-1,762	,902
f2	Mean		1,2400	,08718
	95% Confidence Interval for Mean	Lower Bound	1,0601	
		Upper Bound	1,4199	
	5% Trimmed Mean		1,2111	
	Median		1,0000	
	Variance		,190	
	Std. Deviation		,43589	
	Minimum		1,00	
	Maximum		2,00	
	Range		1,00	
	Interquartile Range		,50	
	Skewness		1,297	,464
	Kurtosis		-,354	,902
f3	Mean		1,2400	,08718
	95% Confidence Interval for Mean	Lower Bound	1,0601	
		Upper Bound	1,4199	

	5% Trimmed Mean		1,2111	
	Median		1,0000	
	Variance		,190	
	Std. Deviation		,43589	
	Minimum		1,00	
	Maximum		2,00	
	Range		1,00	
	Interquartile Range		,50	
	Skewness		1,297	,464
	Kurtosis		-,354	,902
f4	Mean		,0800	,21541
	95% Confidence Interval for Mean	Lower Bound	-,3646	
		Upper Bound	,5246	
	5% Trimmed Mean		,1333	
	Median		1,0000	
	Variance		1,160	
	Std. Deviation		1,07703	
	Minimum		-2,00	
	Maximum		1,00	
	Range		3,00	
	Interquartile Range		2,00	
	Skewness		-,388	,464
	Kurtosis		-1,730	,902

Descriptives

			Statistic	Std. Error
g1	Mean		,6400	,17205
	95% Confidence Interval for Mean	Lower Bound	,2849	
		Upper Bound	,9951	
	5% Trimmed Mean		,6667	
	Median		1,0000	
	Variance		,740	
	Std. Deviation		,86023	
	Minimum		-1,00	
	Maximum		2,00	
	Range		3,00	
	Interquartile Range		,00	
	Skewness		-1,327	,464

	Kurtosis		,486	,902
g2	Mean		-1,0800	,05538
	95% Confidence Interval for Mean	Lower Bound	-1,1943	
		Upper Bound	-,9657	
	5% Trimmed Mean		-1,0333	
	Median		-1,0000	
	Variance		,077	
	Std. Deviation		,27689	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,00	
	Skewness		-3,298	,464
	Kurtosis		9,641	,902
g3	Mean		,3600	,19044
	95% Confidence Interval for Mean	Lower Bound	-,0330	
		Upper Bound	,7530	
	5% Trimmed Mean		,4000	
	Median		1,0000	
	Variance		,907	
	Std. Deviation		,95219	
	Minimum		-1,00	
	Maximum		1,00	
	Range		2,00	
	Interquartile Range		2,00	
	Skewness		-,822	,464
	Kurtosis		-1,447	,902

Descriptives

			Statistic	Std. Error
h1	Mean		-1,7600	,08718
	95% Confidence Interval for Mean	Lower Bound	-1,9399	
		Upper Bound	-1,5801	
	5% Trimmed Mean		-1,7889	
	Median		-2,0000	
	Variance		,190	
	Std. Deviation		,43589	
	Minimum		-2,00	

	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,50	
	Skewness		1,297	,464
	Kurtosis		-,354	,902
h2	Mean		-1,8800	,06633
	95% Confidence Interval for Mean	Lower Bound	-2,0169	
		Upper Bound	-1,7431	
	5% Trimmed Mean		-1,9222	
	Median		-2,0000	
	Variance		,110	
	Std. Deviation		,33166	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,00	
	Skewness		2,491	,464
	Kurtosis		4,563	,902
h3	Mean		-1,7600	,08718
	95% Confidence Interval for Mean	Lower Bound	-1,9399	
		Upper Bound	-1,5801	
	5% Trimmed Mean		-1,7889	
	Median		-2,0000	
	Variance		,190	
	Std. Deviation		,43589	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,50	
	Skewness		1,297	,464
	Kurtosis		-,354	,902

Descriptives

			Statistic	Std. Error
i1	Mean		-1,3200	,09522
	95% Confidence Interval for	Lower Bound	-1,5165	

	Mean	Upper Bound	-1,1235	
	5% Trimmed Mean		-1,3000	
	Median		-1,0000	
	Variance		,227	
	Std. Deviation		,47610	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		1,00	
	Skewness		-,822	,464
	Kurtosis		-1,447	,902
i2	Mean		,8400	,20559
	95% Confidence Interval for	Lower Bound	,4157	
	Mean	Upper Bound	1,2643	
	5% Trimmed Mean		,9222	
	Median		1,0000	
	Variance		1,057	
	Std. Deviation		1,02794	
	Minimum		-2,00	
	Maximum		2,00	
	Range		4,00	
	Interquartile Range		,00	
	Skewness		-1,406	,464
	Kurtosis		1,786	,902
i3	Mean		-1,9200	,05538
	95% Confidence Interval for	Lower Bound	-2,0343	
	Mean	Upper Bound	-1,8057	
	5% Trimmed Mean		-1,9667	
	Median		-2,0000	
	Variance		,077	
	Std. Deviation		,27689	
	Minimum		-2,00	
	Maximum		-1,00	
	Range		1,00	
	Interquartile Range		,00	
	Skewness		3,298	,464
	Kurtosis		9,641	,902
i4	Mean		-1,2800	,16852
	95% Confidence Interval for	Lower Bound	-1,6278	
	Mean	Upper Bound	-,9322	

	5% Trimmed Mean		-1,3889	
	Median		-1,0000	
	Variance		,710	
	Std. Deviation		,84261	
	Minimum		-2,00	
	Maximum		2,00	
	Range		4,00	
	Interquartile Range		1,00	
	Skewness		2,412	,464
	Kurtosis		9,169	,902
i5	Mean		,5200	,17436
	95% Confidence Interval for Mean	Lower Bound	,1601	
		Upper Bound	,8799	
	5% Trimmed Mean		,5778	
	Median		1,0000	
	Variance		,760	
	Std. Deviation		,87178	
	Minimum		-1,00	
	Maximum		1,00	
	Range		2,00	
	Interquartile Range		1,00	
	Skewness		-1,297	,464
	Kurtosis		-,354	,902