

# Research Methods & Tools

## Shadowing



### Method


Shadowing is a qualitative research method based on structured observation. The main purpose is to gain a deep understanding of the behaviour of a person in a specific role (user, client, customer, service provider, manager, employee, etc) and in a certain context (in relation to an environment, situation, product, service, etc). Typically, a researcher follows an individual over a set period of time whilst collecting field notes (in text, photo, or audio-video recordings), which after analysis reveal patterns of behaviour, motivations, experiences, and interactions.

Researchers use shadowing as a way to immerse themselves in real life situations, thus being able to record first-hand experiences of what a person does, rather than what a person says it does, for instance, in a survey. When using shadowing, a researcher must carefully consider the impact of being present and thus the risk of the 'observer effect' — changes in the behaviour of the person as a result of the person knowing that he/she is being studied by the researcher.

### Contents

This document presents examples of how this method was used in practice to support research on the lifestyle and needs of seniors and topics related to population ageing.

BaltSe@nioR Virtual Library offers research, tools, and methods to support enterprises in the Baltic Sea Region in product development aimed at raising comfort and safety of seniors' home living.

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## Preparing

Astrida has got a message from her daughter that her granddaughter has broken her leg and Astrida has to go to their place to another city (70 km from Riga) to help in daily housekeeping. She gets up early in the morning, prepares and eats breakfast, makes sure that phone, valet and documents are in her purse. She prepares herself for going out.

### People

Lives alone  
No male  
No animal

### Objects

Pull-out sofa  
Fulfilled fridge  
Table, dishes  
Indoor clothes -  
Purse with zipper:  
phone, vallet, glasses,  
passport, lipstick

### Environments

1 room apartment  
bedroom and  
living room  
Kitchen  
Bathroom

### Messages

Phone call from  
Astrida's daughter,  
Her help us needed.  
Astrida forwards this  
message to other  
relatives (son, broth-  
er) - she will be  
away for a week.

### Services

Communication  
(mobile phone)  
Finance service (ATM)



Astrida has to feel needed from the side of her relatives otherwise she does not have any sense in living. She is happy that she can go and help her granddaughter. Food is one of the most important things: fridge is always fulfilled. It can come from bad experience from war times. Maybe she is afraid to stay without food because of sudden illness.



Sofa is used for both for sleeping and sitting/relaxing in day time: pulled out and folded up every day. Astrida plans her time to be early to the place where she has to be: this time bus station – almost 1 hour before. She always put on lipstick before leaving. She always takes out all money from



ATM one she gets her pension in her bank account. She has free public transport both for city transport and intercity as she has been a deported person.





## On the way

Astrida makes sure that electric devices in apartment is turned off (TV, lights, iron etc.). She puts on her outdoor clothes, lock the door of the apartment and goes to the trolleybus stop to reach the bus station. She gets her free ticket at the booking office of the bus station, goes to the bus platform and gets into the bus.

### People

People in trolleybus  
Worker of the  
booking-office  
Bus driver  
People in bus

### Objects

Clothes  
Boots  
Purse with zipper  
phone  
valet  
Trolleybus  
Bus

### Environments

One room apartment  
Trolleybus  
Corridor with  
wardrobe  
Bus station

### Messages

She will be necessary  
for her relatives  
She asks for the free  
ticket at the booking  
office  
She calls her  
daughter when she  
gets into the bus

### Services

Communication  
(mobile  
phone)  
Public transport  
(trolley bus to the city  
centre;  
bus to Bauska city)



Astrida keeps her apartment in perfect order. Every thing has its own place. Wardrobe – with selected outdoor clothes, precisely separated, hang on cloth stands. A row of slippers on the



floor shows that she is prepared for guests coming. Astrida always put on hat first when she prepares herself for going out. Then goes scarf, coat and finally boots. She needs to



lean against the wall while she zips up or unzips her boots. She visits her daughter very often so going by bus is an usual action for her.



## Getting out

Raimonds is 70. He lives in Daugavpils, in the apartment at the city center.  
Lives with his wife and cat. Two children and four grandchildren live separately.  
Raimonds had ordinary day, sitting comfortably and reading newspaper, when he suddenly got an invitation from his old friend join him watching hockey game – they both are big fans.

### People

Lives with wife, cat  
has 2 children (son, daughter)  
4 grandchildren  
Children families live separately in the capital (250 km away from him)

### Objects

Comfortable chair for reading; Fulfilled fridge – to be honest  
3 TV in the house  
Glasses for reading  
Newspaper; Home clothes – T-shirt, trousers, slippers

### Environments

Three room apartment:  
Kitchen  
Bathroomtoilet,  
Bedroom  
Living room  
Guest room

### Messages

Phone call from his old friend.  
He is invited to watch hockey game together

### Services

Communication (mobile phone)





Raimonds is retired and happy about it. Finally he has plenty of time for reading, sleeping and TV watching. He is always happy, when his children arrives to visit him. Food is one of the most important things: fridge is always fulfilled. It's just his hobby – to go shopping. He loves to



do it. His wife is mad sometimes, that he buys too much. He has very comfortable chair – he sits there while watching TV, reading newspaper and while having guests. If it was his choice – he would never part from it. He likes to meet his old friend, but after some hours of visiting always wants to go



back home to his environment. He never stays overnight when he visits somebody. He always makes sure, that his cat is fed before leaving. He never travels with public transport and don't like walking a lot. He has a car – and it's parked next to his apartment.



## Getting back

After 4 days helping her daughter and granddaughter Astrida is preparing to get back home. She prepares dinner for her daughter's family, she brings in firewood for the wood stove and gets ready to leave. As her daughter and granddaughter live 5 km from the Bauska city centre, her daughter brings her to the Bauska bus station by car. Astrida arrives home in the evening.

### People

Granddaughter  
Daughter

### Objects

Peeling knife  
Potato  
Meat  
Frying pan  
Pot  
Stove  
Dishes  
Firewood  
Car

### Environments

Daughter's 2 floor  
apartment:  
3 rooms  
Kitchen  
Bathroom  
Corridor  
Car

### Messages

Astrida is invited to  
her brother's birthday  
tomorrow  
Bus to Riga departs at  
4 p.m. She will go  
back to help her  
granddaughter in 3  
days

### Services

Public transport  
(bus from Bauska city  
to Riga trolley bus  
from the city centre  
of Riga to Purvciems)





Astrida is left handed.  
Getting into the car causes difficulties for Astrida especially with a purse in one hand. There are no handle to hold on.



Fastening seat belt is also quite uncomfortable: seat belt is far behind.





## Preparing

Preparation included finishing to watch TV (news) and looking for an alternative program for later, while sitting on a chair with multiple pillows; putting on his favorite sweater and drinking a cup of tea while talking to wife about dinner plans for them and the dogs, who are taken care of, while their owner is on a vacation

### People

Wife  
People on the TV  
Daughter

### Objects

TV and its remote  
Chair  
Pillows on chair  
Cup  
Best sweater

### Environments

Kitchen  
Living room

### Messages

News  
Directions of care for dogs by his wife  
Information about dinner

### Services

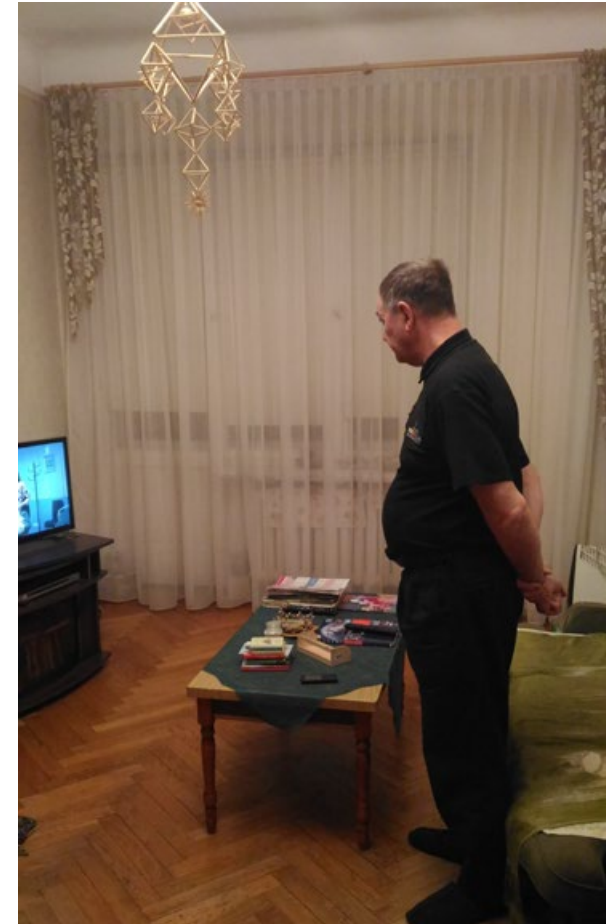
Preparation of meals  
Taking care of the dogs



Preparation itself consisted of usual everyday actions, that require no extra skills. Back of the chair and the couch is



not comfortable for long periods of sitting, therefore is adjusted with three pillows.







## On the way

Getting out was more complex and included sitting down on a small bench; putting on shoes; collars and leashes for dogs (trying to make them behave); putting on a coat and a scarf; finding other necessary items, such as plastic bags, keys and a flashlight (just in case).

### People

-

### Objects

Bench  
Clothing items  
Dog accessories  
Flashlight

### Environments

By the door

### Messages

Commands for dogs  
Hew the collars and  
leashes work

### Services

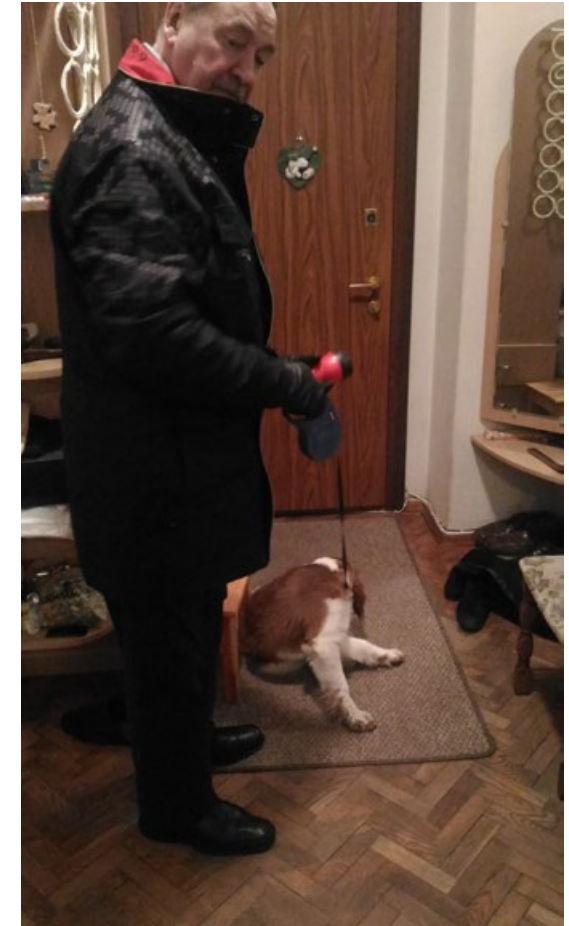
Walking dogs



Majority of actions done while sitting down to make it easier to reach shoes and dogs.



Collars have small details that require some skill or time to open and close. Items such as keys, plastic bags and a flashlight are stored in pockets of the coat.



Always a scarf, rarely a hat. Also dog leash harder to operate in thick winter gloves.



## Getting out

Being in control of two dogs is not an easy task to manage alone. It includes holding the door open for everybody to get out; going to an open, car and pedestrian-free area and unleashing the dogs; playing with them; looking out for people and getting them back home.

### People

Other dog owners  
Neighbors  
Car drivers

### Objects

Doors  
Leashes  
Tree branches  
Flashlight

### Environments

Courtyard  
Street  
Stairwell

### Messages

Commands  
Nice dogs

### Services

Walking dogs

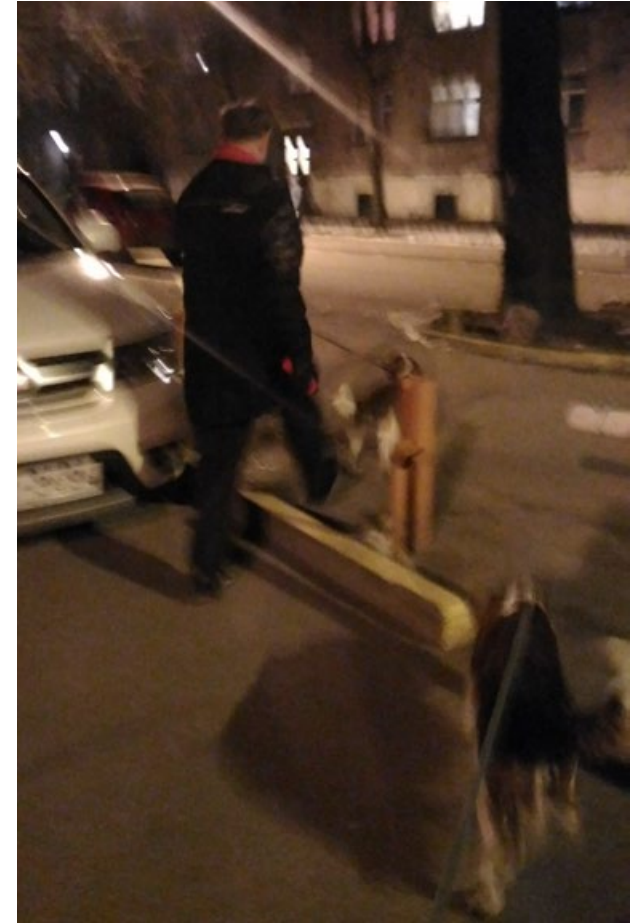




Oldest dog is much more calm and easier to take care of, while the puppy barks at people and cats passing by. To better see leash details in the dark, flashlight comes in handy.



Everyone is excited for dinner and wishes to get back sooner after a short playtime, therefore takes the shortest way.



Playing with dogs is basically done standing up with a bit of running and bending down to leashes.



## Getting back

Getting back included going into the house, getting upstairs and into an apartment; cleaning up paws and taking off collars; stretching a bit and undressing; putting on slippers.

### People

-

### Objects

Stairs  
Leashes  
Clothing  
Slippers

### Environments

Stairwell  
By the door

### Messages

Commands  
how to clean up

### Services

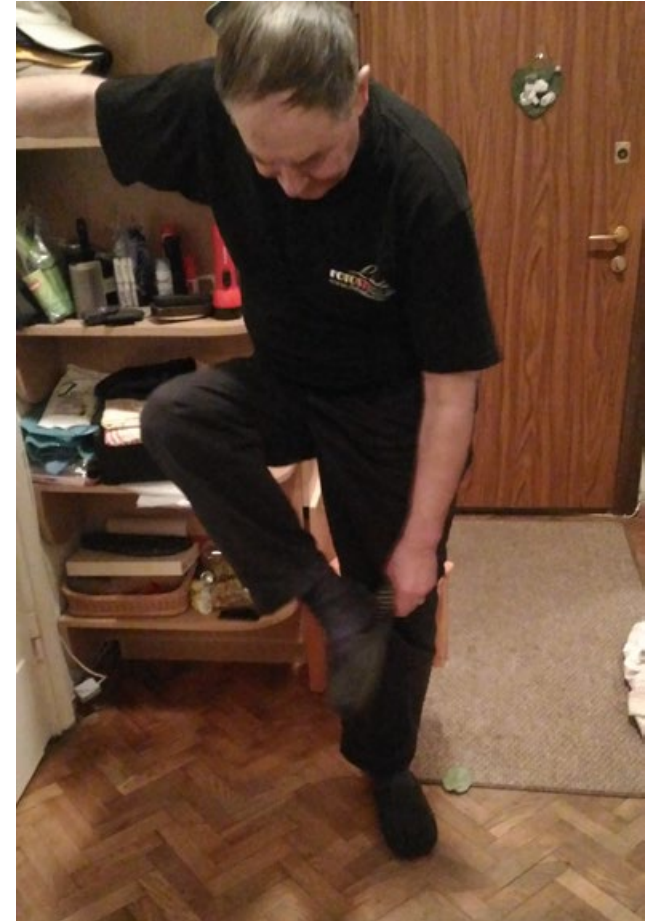
Cleaning up



As the puppy was pulling his leash, it got loose and dragged behind him up the stairs. Again, dogs and shoes were taken care of while sitting down.



To put on slippers properly, it was necessary to hold on to something.







## Preparing

Enter the lecturer room 15min before the lecture and drop the suitcase on the table and check the time. Sat down and opened the suitcase checked the material for the lecture and closed it. Took a book what was placed on the table and started to read it, after few minutes offered us to take a look at it. Checked the time and stood up, took suitcase and were ready to go.

### People

Lecturer

### Objects

Suitcase  
Arm watch  
Book  
Cellphone  
Materials for Lecture  
Things on the table  
Chair

### Environments

Lecturer room at the  
design department  
Quiet surrounding

### Messages

Often check the  
clock  
Use the media on  
the desk  
Double check  
materials for lecture

### Services

Cellphone



Always when he enter the room drop the suitcase on the table. Sentimental Latvian song as a ring-tone and it haven't changed for several years. Persona often checks the time to be



exact on the time and always arrives at least 15 min before. When he is at the desk or table always make some breathing room and push the unimportant thing to the side. Before



he leave the room he is putting everything in the place and make some space to easily get out of the room.



## On the way

Goes out from the lecturer room to the main building. Three of the door has the code key to enter. On his way to lecture he has two obstacles first stairs at the department and second in the main building. Always he has to collect the key from the registration and unlock the door and enter the emergency code at the class room and switch on the light.

### People

Receptionist  
Students on the way

### Objects

Stairs  
Doors  
Codes

### Environments

Design department  
Academies back  
yard  
Reception  
Main building  
Hallway  
Class room

### Messages

He has to remember  
two codes on the  
way first one one  
the way to main  
building second one  
at the class.  
Always say hi to lady  
at reception

### Services

Codes  
Reception





He is very talkative and on the way if he meet anyone he holds some talk. All the stairs are a little challenging for him therefore he is using handrail for better movement. We observed he never lose his good manners therefor the door at the entrance is quiet heavy but he always opens them and



let the ladies first. With the Reception-ist he is used to hold some small talk and the lady always passes him the key without being told to pass it . At the class room door he is always waited because there is a bunch of students who is waiting for him. At the door he is so used to put the key



at the door that he never looked at the key hole, but it is a bit of struggle till he can open the door or it could be that the key hole isn't high enough for him to look at it. First thing entering the room he has to put down emergency code and put the light on than that's his way to the class.



## Getting out

This was a class for the first year students and during this class they had an Anatomy exam to complete.

### People

Lecturer  
Students

### Objects

Desk  
Chair  
Suitcase  
Blackboard  
Muscle man  
Spine  
Scapular  
Paper

### Environments

Class room

### Messages

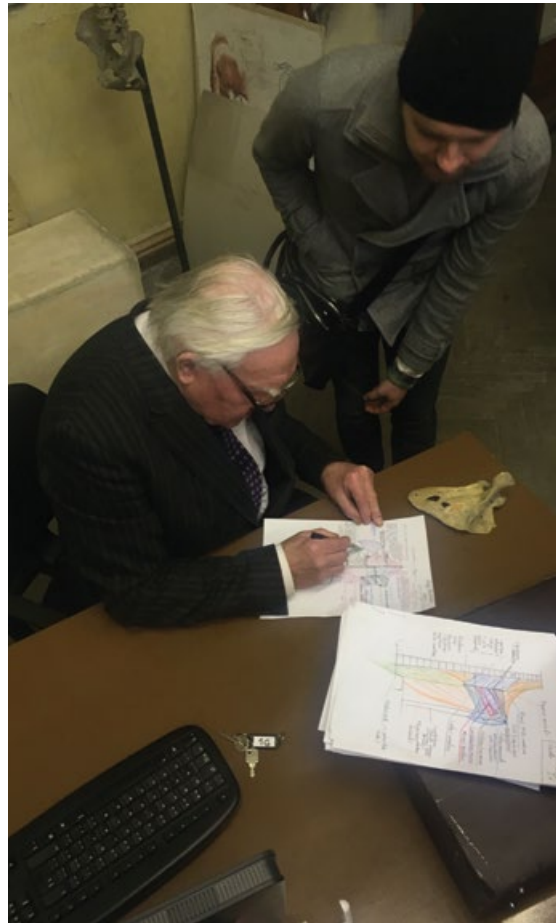
Has to deliver the knowledge and introduce with the exam.

### Services

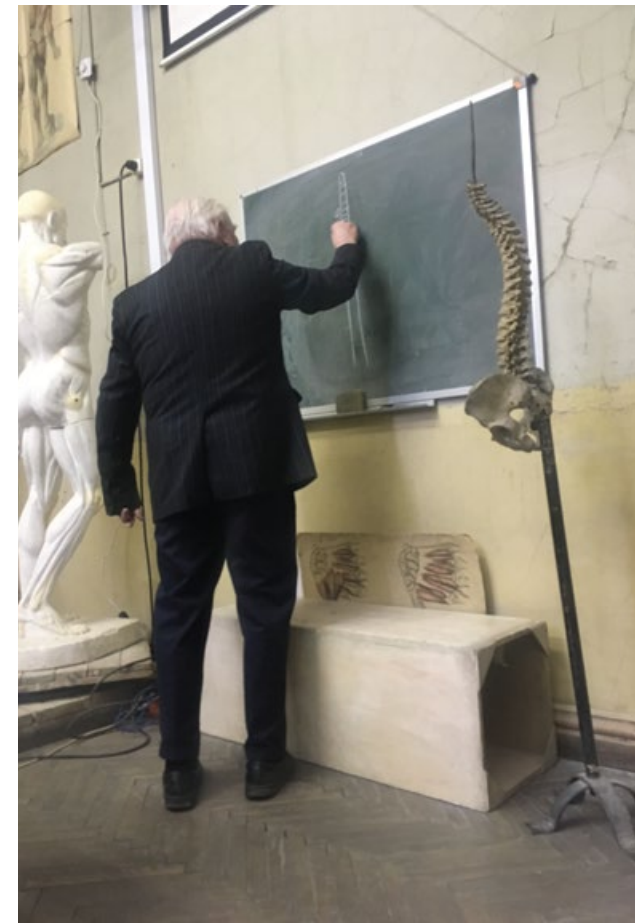
Teaching



Super happy and never loses his positive way of life. He constantly has some joke in his pocket. Before he starts his class he take a good look around if majority of students are in than he begins the class. And if some of the students are late he is more welcome than angry . We observed while he is



along with students he feels as young as them . While he was holding the start of the class he was worried that there will be enough paper for everyone to write the exam. He is really into that what he is doing and more politely will speak about each bone and share his knowledge. He is really



willing to move and he is standing as long as his feet can take. At the class there is a Muscle man which he moves by his leg. And he is trying to over check each students work after the exam and already corrects some minor mistakes what he sees.





## Getting back

After the class switch the light off and lock the door give back the key to receptionist uses the hand rail to climb down the stairs and has to remember two codes again but for different doors. Goes into the department and straight to lecturer room and put the suitcase on top Of the desk later on ergonomic lecturer lands in and start to talk about new trends and introduce than on the computer.

### People

Lecturer  
Ergonomic lecturer  
Receptionist

### Objects

Suitcase  
Watch  
Desk  
Chair  
Computer  
Glasses

### Environments

Hall  
Reception  
Stairs  
Back yard  
Department  
Lecturer room

### Messages

New trends

### Services

Computer  
Internet



Getting back from the class was different this time for lecturer, because his suitcase flipped open and he was saying that that's okay that he has a new one at home, so it means he is thinking forward about the life.



He isn't using the computer but more than welcome when Ergonomic lecturer showed the newest trends on computer about the steam punk style



and he is always more than pleased to listen about it and also say his opinion about a shape as a sculptor.



## Preparing

Preparing for going grocery shopping, a more or less daily activity, getting dressed, making sure to have enough money, to not forget anything necessary, leave the apartment.

### People

On your Own

### Objects

Clothing  
Shoes, handbag  
Shopping bag  
Purse with Money  
Scarf, hat  
Stool to sit on  
Keys, ticket for public Transport  
Mobile Phone

### Environments

Own Apartment  
Private Space  
Hallway  
Staircase  
Wardrobe

### Messages

News broadcasts:  
TV, Radio, Paper  
Weather forecast  
observing  
thermometer

Whether or not  
person is taking  
some daily  
medication





Elderly tend to take a long time for Preparation, why is that? Maybe because they are afraid of forgetting something, to be a burden to others (Family?), they leave their "Safe Space" which puts them under a lot of pressure. Everything will be checked a few times, creating a chaotic mindset in

resulting in forgetting stuff. Maybe "forgetting stuff, being slow" is not something that Comes automatic with age but it is more of a certain set of mind. When others and even you yourself assume that you would Forget stuff easily than that might actually happen more often.



The handbag is filled with many different Things, so finding stuff is hard and older People might think they forgot something even though they just cannot find it.



## On the way

Older Person travelling by tram to Riga's Central Market. Getting in the Tram, Validating the Ticket, Sitting down. Getting out at the right Station.

### People

Other Passengers  
Tram Driver

### Objects

Seat  
Stairs  
Handbag  
Ticket  
Purse  
Ticket Validation  
Maschine  
Handles

### Environments

Public Transport  
Inner City  
Environment  
Busy Streets  
Tram stations

### Messages

Urban advertisements  
Tram stop timetable  
Tram announcements

### Services

Public transport  
company  
Senior citizen  
transportation  
Discount from  
Municipality and/or  
government.



Although there are handles a tram ride must be difficult for older People, especially in rush hour times. It was hard to get up the stairs, stressful to validate



the ticket and find a seat before the tram started moving again. It is narrow and there are no announcements, also no signs or only signs with very small font sizes. Old tram with stairs, the Station was not



build to support same Level Access, also nowhere a place to sit at the Station.





## Getting out

Grocery Shopping at the Central Market, process of deciding what to buy, where to buy and Observation of certain Behaviour. E.G. she decided to buy something from one stand simply because she could put her bags somewhere. Other Booths did not offer space for the bags, so she walked by them. Buying meat first, then visiting Supermarket for cheap cabbage, vegetables and fish at the market again.

### People

Other shoppers  
Mainly older people  
Sellers

### Objects

Different kinds of  
Food  
Bags  
Booths  
Money  
Trolleys  
Cash desks  
Doors

### Environments

Different market  
situations  
Grand market halls  
Narrow supermarket

### Messages

Conversation between  
seller and buyer  
No chit chat  
Signs with Prices  
(good readability)

### Services

While shopping person  
got more bags, used to  
put them down when  
buying something.  
In the market the sellers  
packed groceries in  
bags, in the supermarket  
she had to do it on her  
own



Central Market is easily physically accessible for elderly and disabled. But shopping process itself makes experience a challenge, because of the purchased goods. Not every one has a stroller-bag,



which is a great convenience. With carriable bags there is mostly lack of shelf where to put those. Stroller-bags are perfect for elderly shopping because of usage ease, and necessity to carry



products in hands, also they let one hand to be constantly free. The con for the stroller is that, it takes a lot of space per person and makes difficulty to use in crowds.



## Getting back

Getting back home, with all the groceries in bags, basically the same way as "on the way" but with more to carry, so the process of getting home is more energy consuming.

### People

Passengers in tram  
Tram driver  
Passer-bys on the street

### Objects

Tram station  
Stairs  
Seats  
Ticket validation  
Maschine  
Handles  
Purse  
Bags

### Environments

Public transport  
Inner city streets  
Busy roads  
Walkway  
Stairway

### Messages

Advertisements on the tram  
Displays  
Signage on tram  
Stations  
Sounds from ticket  
Validation machine

### Services

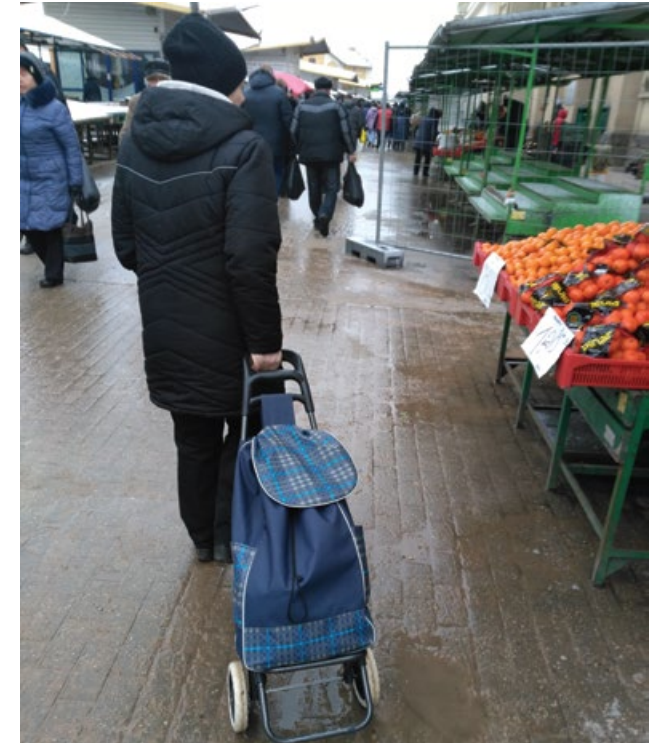
Public transport company  
Senior citizen transportation discount from municipality and/or government.





Getting home after grocery Shopping seems to be more difficult than getting out, simply because of the weight of the bags and thus no free hands anymore to hold on to handles. So steps must be

taken more carefully. Taking the stairs is also harder now, in the Apartment she Needs to sit down first for a few minutes before putting away the



freshly bought goods. Once in the apartment there is Relaxation. Everything is done, everything went fine, no need to worry anymore.