Appendix D: Survey, English version

Informed consent

Title of the study: “Falls and Fear of Falling due to Environmental Factors from the Perspective of Community Dwelling Elderly: A participatory study in the Nieuwmarkt neighborhood, Amsterdam”
Responsible researchers: Gwen Wregar, Monica Iulisca, Karlijn Musch

To be filled out by the participant:
I declare to have been clearly informed on the nature, methods, purpose and load of this study. I know that the data and results of the study will be shared with third parties anonymously and confidentially. My questions about the study have been sufficiently answered. I agree completely voluntarily to participation in this study. I have the right to withdraw at any time without giving a reason.

Name participant: …………………………………………………………………………………………………

Date: ………….. Signature Participant: …………………………………………..

To be filled out by the executing researcher:
I have given a verbal and written explanation on the nature, methods, purpose and load of this study. Any remaining questions will be answered to the best of my ability. The participant will not experience any negative consequences from withdrawal the study.

Name Researcher: …………………………………………………………………………………………………

Date: ………….. Signature Researcher: …………………………………………..
SCREENING QUESTIONNAIRE
Environmental fall risk analysis for the Nieuwmarkt area

We are 3 international physiotherapy students from the HvA working on our thesis project. For our thesis we want to investigate which environmental factors contribute to the risk of falling in the Nieuwmarkt area amongst the elderly population. Your opinion and the information you provide will help us with our research. Any information you provide will be strictly anonymous, only used for this project and treated with confidentiality.

First of all, we would like to ask you a few screening questions to see if you are eligible to participate in our study. If you are eligible, we will ask you to sign a consent form, in which you give us permission to fill out two more questionnaires with you. These questionnaires will be filled out together with the researcher.

GENERAL SCREENING

I. Do you live in or near the Nieuwmarkt, postcode area 1011?
   - yes   - no

II. What is your age? ________________________________

III. Have you fallen outside your home in the Nieuwmarkt neighbourhood (postcode 1011) in the last 2 years?
   - yes   - no

IV. Did you nearly fall outside your home in the Nieuwmarkt neighbourhood in the last 2 years?
   - yes   - no

V. Are you living independently?
   - yes   - no

VI. Gender
   - female   - male
Falls Efficacy Scale-International (English)

I would like to ask some questions about how concerned you are about the possibility of falling. For each of the following activities, please circle the opinion closest to your own to show how concerned you are that you might fall if you did this activity. Please reply thinking about how you usually do the activity. If you currently don’t do the activity (example: if someone does your shopping for you), please answer to show whether you think you would be concerned about falling IF you did the activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not at all concerned</th>
<th>Somewhat concerned</th>
<th>Fairly concerned</th>
<th>Very concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cleaning the house (e.g. sweep, vacuum, dust)</td>
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<tr>
<td>2 Getting dressed or undressed</td>
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<tr>
<td>3 Preparing simple meals</td>
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<tr>
<td>4 Taking a bath or shower</td>
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<tr>
<td>5 Going to the shop</td>
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<tr>
<td>6 Getting in or out of a chair</td>
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<tr>
<td>7 Going up or down stairs</td>
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<tr>
<td>8 Walking around in the neighborhood</td>
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<tr>
<td>9 Reaching for something above your head or on the ground</td>
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<tr>
<td>10 Going to answer the telephone before it stops ringing</td>
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<tr>
<td>11 Walking on a slippery surface (e.g. wet or icy)</td>
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<tr>
<td>12 Visiting a friend or relative</td>
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<tr>
<td>13 Walking in a place with crowds</td>
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<tr>
<td>14 Walking on an uneven surface (e.g. rocky ground, poorly maintained pavement)</td>
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<tr>
<td>15 Walking up or down a slope</td>
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<tr>
<td>16 Going out to a social event (e.g. religious service, family gathering, or club meeting)</td>
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</tbody>
</table>

Sub-Total

Total / 64

QUESTIONNAIRE
Environmental fall risk analysis for the Nieuwmarkt area

The questionnaire will be filled out together with the researcher. It consists of 48 questions and takes 30 minutes up to one hour to complete. You can ask questions at all times when something is not clear to you. If you feel uncomfortable answering a certain question you can leave it in blank. At any moment you are free to stop taking part in this study.

A. SECTION A

1. Are you using a walking aid?
   O none  O cane  O rollator  O crutches  O other_____________

2. 2.A Do you do your own grocery shopping?
   O No  →  Continue with question 3.
   O Yes, almost every day
   O Yes, about 3x per week
   O Yes, only once per week

2.B How do you do your own grocery shopping?
   O By foot  O By bicycle  O By car  O Scooter  O Motor wheelchair
   O Other ___________________________

3. During an average day, how often do you go outside by foot for activities other than groceries (e.g. to go for a walk, visit a friend, neighbour or relative, walk the dog etc.)?
   O never  O once  O 2-3 times  O 4 times or more

4. 4A. What kind of outdoor activities do you participate in (multiple answers possible):
   O Go for a walk (leisure)
   O Cycling
   O Walking the dog
   O Visiting friends/family/neighbors
   O Go to the market
   O Gardening
   O Sports
   O Other ____________________________________________

4B. Please specify which sport you do__________________________
5. 5A. I participate in a (group) fitness or sports program for elderly
   O no, continue with question 6
   O no, I exercise independently → see 5B
   O yes → see 5B

5B. Please indicate how often:
   O less than once per week
   O once per week
   O about 3x per week
   O almost every day

6. 6.A. Whenever you go outside, how long do you walk for on average?
   O 5 min or less   O 6-15 min   O 16-30 min   O 31 min - 1 hour   O >1 hour

6.B. You just indicated how long you generally walk. During a walk of that duration, how often do you need to stop to catch a breath
   O never     O once     O 2-3 times     O 4 times or more

6.C. You just indicated how long you generally walk. During a walk of that duration, how often do you need to sit down to rest?
   O never     O once     O 2-3 times     O 4 times or more

6.D. You just indicated how often you need to sit on an average walk. Can you find a place to sit when you need to?
   O never     O sometimes     O often     O always

7. Indicate the 3 places you visit most regularly by foot in your neighbourhood:
   I. __________________________________________________________
   II. __________________________________________________________
   III. __________________________________________________________

8. 8.A Do you take the same routes to get to these places you visit regularly?
    O No,

    O Yes, please explain why: _______________________________________________________

8.B No matter if you always take the same routes or a different one every time you go out, do you ever take a detour to avoid certain obstacles or situations you come across on the shorter route?
   O No,
   O Yes, please explain which situations or obstacles:______________________________
9. When do you usually go outside for walks? Please explain why this is your preferred time of the day.
   O  morning  O  afternoon  O  evening
   because _____________________________________

B. SECTION B

10. On an average day, how often do you feel/realize you need to pay attention to your feet in order not to fall while being outdoors?
   O  never  O  1 time  O  2-4 times  O  5 times or more

11. On an average day, how often do you stop doing something because you think you might fall?
   O  never  O  1 time  O  2-4 times  O  5 times or more

Now, I would like to ask some questions about how concerned you are about the possibility of falling. For each of the following activities, please circle the opinion closest to your own to show how concerned you are that you might fall if you did this activity. Please reply thinking about how you usually do the activity. If you currently don’t do the activity (example: if someone does your shopping for you), please answer to show whether you think you would be concerned about falling IF you did the activity).

12. 12A. In general, how concerned are you of falling outdoors?
   O not at all concerned  O somewhat concerned  O fairly concerned  O very concerned

12B. Please indicate your concern of falling outdoors in the following situations

<table>
<thead>
<tr>
<th>Situation</th>
<th>Not at all concerned</th>
<th>Somewhat concerned</th>
<th>Fairly concerned</th>
<th>Very concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Walking on a narrow sidewalk</td>
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<tr>
<td>2  Walking with grocery bags</td>
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<tr>
<td>3  Going around a car parked on the sidewalk</td>
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<tr>
<td>4  Getting in/out of a shop</td>
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<tr>
<td>5  Stepping on/off the curb</td>
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<tr>
<td>6  Walking on a bridge</td>
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<tr>
<td>7  Walking up or down a slope</td>
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<tr>
<td>8  Avoiding potholes in the pavement/street</td>
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<tr>
<td>9  Going up or down stairs</td>
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<tr>
<td>Situation</td>
<td>Not at all concerned</td>
<td>Somewhat concerned</td>
<td>Fairly concerned</td>
<td>Very concerned</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>10 Walking on a slippery surface</td>
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<tr>
<td>11 Walking on an uneven surface</td>
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<tr>
<td>12 Walking in a crowded area</td>
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<tr>
<td>13 Crossing a zebra path</td>
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<td>14 Crossing at a traffic light</td>
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<tr>
<td>15 No zebra or lights: Crossing the bicycle path walking</td>
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<tr>
<td>16 Crossing a street with one way traffic by foot</td>
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<td>17 Crossing a street with two way traffic by foot</td>
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<tr>
<td>18 Getting on/off public transport</td>
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<tr>
<td>19 Walking in the evening when it is dark</td>
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<tr>
<td>20 Walking when it is very windy</td>
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<tr>
<td>21 Walking when it is raining</td>
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<tr>
<td>22 Walking when it snows</td>
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</tbody>
</table>

13. How well can you judge/perceive the speed of traffic (cyclists as well as motorized vehicles) around you?
   O Excellent   O Good   O Just fair   O Really poor

14. How well do you judge/perceive your own ability to anticipate to traffic around you?
   O Excellent   O Good   O Just fair   O Really poor

15. The speed of traffic around me make me nervous
   O Never   O Sometimes   O Often   O Always

16. Name the 3 things in order of importance (1 = most important) you’re most concerned of when walking outside in relation to falling and please explain why:
   I. __________________________________________
      Because:________________________________________
   II. ______________________________________________
      Because:________________________________________
   III. ______________________________________________
      Because:________________________________________
17. Which traffic situations worry you most about with regards to concern of falling? Please explain why:

I. __________________________________________________________________________
   Because:______________________________________________________________________

II. __________________________________________________________________________
   Because:______________________________________________________________________

III. __________________________________________________________________________
   Because:______________________________________________________________________

18. Please indicate if, in your opinion, there are any slippery surfaces in your neighbourhood due to which you are concerned to fall? If yes, specify where:
   O No  O Yes, ______________________________________________

19. Please indicate if in your opinion there are crowded areas in your neighbourhood due to which you are concerned to fall? If yes, specify where:
   O No  O Yes, ______________________________________________

20. Please indicate if in your opinion there are any uneven surfaces in your neighbourhood where you are concerned of falling. If yes, please specify where:
   O No  O Yes, ______________________________________________

21. Please indicate if in your opinion there are any slopes in your neighbourhood where you would be concerned to fall when walking up or down those slopes. If yes, please specify where:
   O No  O Yes, ______________________________________________

22. Please indicate if in your opinion there are dark/poorly lighted areas in your neighbourhood where you are afraid of falling. If yes, please specify where:
   O No  O Yes, ______________________________________________

23. In question 18-22 you have indicated where in the neighbourhood you’re afraid of falling. If there are other locations where you’re afraid of falling for any other reason, please indicate below:

I. __________________________________________________________________________
   Because:______________________________________________________________________

II. __________________________________________________________________________
   Because:______________________________________________________________________

III. __________________________________________________________________________
   Because:______________________________________________________________________
24. Please tick the boxes that describe best in what way your daily activities are influenced by a certain concern to fall? (multiple answers possible)
   O I’m going out only for the strictly necessary errands
   O I do not do groceries independently.
   O I started using a walking aid
   O When I walk outside I rather walk with the help of someone else
   O I try to walk with greater care and pay close attention to where I place my feet at each step
   O I’m not walking as often as I wish but rather take a taxi or public transport
   O I quit cycling/cycle less often
   O I quit doing certain activities: ________________________________

   OR, in case none of these are applicable to you:
   O My concern to fall is not holding me back in my activities

25. If you could change three things in the environment of the neighbourhood that would help/make you walk outside more easily, what would that be? OR Name three things that you feel would help you to walk outside with more confidence.

   I. ____________________________________________________________
   II. ____________________________________________________________
   III. ____________________________________________________________

26. Is there a location in the neighbourhood where public space is organized such that you can easily and safely walk outside without fear of falling? Please explain why.

   ____________________________________________________________
   Because: ____________________________________________________
   ____________________________________________________________

C. SECTION C

27. How often have you fallen outside your home in the last 2 years?
   O no falls   O 1 time   O 2-4 times   O 5 times or more

28. How often have you nearly fallen outside your home in the last 2 years?
   O no near falls   O 1 time   O 2-4 times   O 5 times or more
29. Please describe the three most important situations in which you (nearly) fell down in the past 2 years, using the table below. You can tick the box that applies to you using a X.

<table>
<thead>
<tr>
<th>Situations</th>
<th>event A</th>
<th>event B</th>
<th>event C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location/ address of the fall/near fall</td>
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<tr>
<td>Fall</td>
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<tr>
<td>Near fall</td>
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<tr>
<td><strong>Timing</strong></td>
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<tr>
<td>Morning</td>
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<td>Afternoon</td>
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<td>Evening</td>
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<tr>
<td>Night</td>
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<tr>
<td>Month of the fall/near fall</td>
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<tr>
<td><strong>Situation</strong></td>
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<tr>
<td>was cycling</td>
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<tr>
<td>crossing the street walking</td>
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<tr>
<td>crossing the bicycle path walking</td>
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<tr>
<td>walking with heavy (grocery) bags</td>
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<tr>
<td>walking on the sidewalk</td>
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<tr>
<td>avoiding an obstacle</td>
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<tr>
<td>getting on or off public transport</td>
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<tr>
<td>getting into/out of a shop</td>
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<tr>
<td>going up stairs/steps (outside)</td>
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<tr>
<td>walking on a slippery surface</td>
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<tr>
<td>walking in a crowded area</td>
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<tr>
<td>walking on an uneven surface</td>
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<tr>
<td>going up or down a slope</td>
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<tr>
<td>walking my dog</td>
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<tr>
<td>Traffic accident → collision with:</td>
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<td>Person</td>
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<tr>
<td>Car</td>
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<tr>
<td>Cyclist</td>
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<td>Scooter</td>
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<td>Other</td>
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<tr>
<td>Other, please describe:</td>
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</tbody>
</table>
### 30. Since your last (near) fall, how concerned are of falling (again)?

- O not at all
- O somewhat
- O fairly concerned
- O very concerned

### 31. Did your last (near) fall change your daily activities? (multiple answers possible)

- O No
- O Yes, I’m going out for walks less since I (nearly) fell down
- O Yes, I’m not doing my groceries independently anymore
- O Yes, I’m not able to visit friends and family as often as before
- O Yes, I’m receiving help in the house since I fell down
- O Yes, I’m not walking as often as I wish but have to take a taxi or public transport
- O Yes, I quit cycling/cycle less often
- O Yes, since the (near) fall I do not live independently anymore.
- O Yes, I quit doing the following activities:_________________________________________
32. Due to my concern of falling/the last fall I experienced I have become more active in order to improve my balance and fitness level
   O True   O False

33. Did your last fall lead to a change in your behaviour outdoors? (multiple answers possible)
   O No
   O Yes, I started using a walking aid
   O Yes, I avoid the spot where I (nearly) fell down
   O Yes, I'm taking a different route to my destination
   O Yes, I'm not walking anymore to my destination but rather take a taxi or public transport
   O Yes, when I walk outside I rather walk with the help of someone else
   O Yes, I try to walk with greater care and pay close attention to where I place my feet at each step
   O Yes, I ______________________________________________________________

34. Which kind of injuries did the last (near) fall cause? (multiple answers possible)
   O No injuries  —> please continue with question number 36, Section D.
   O Concussion
   O Scratches and bruises
   O Open wound
   O Twisted ankle
   O Bruised bones, please specify ________________________________
   O Fractures, please specify ________________________________
   O Other: ______________________________________________________________

35. In case you were injured, where did you go? (multiple answers possible)
   O Visit to the GP
   O Visit to the first aid
   O Hospital admission, no surgery
   O Hospital admission, surgery
   O I did not see any doctor, but went straight to the physical therapist
   O Other: ______________________________________________________________

D. SECTION D

36. How do you judge your sense of balance?
   O Excellent   O Good   O Just fair   O Really poor

37. How do you judge your walking abilities?
   O Excellent   O Good   O Just fair   O Really poor

38. How do you judge your sense of hearing?
   O Excellent   O Good   O Just fair   O Really poor
39. 39A. How do you judge your sense of vision during daytime?
   - Excellent
   - Good
   - Just fair
   - Really poor

39.B. How do you judge your sense of vision during the night?
   - Excellent
   - Good
   - Just fair
   - Really poor

40. Due to my concern of falling I feel that I need to become more active in order to improve my balance and fitness level
   - True
   - False

41. I know where I can go if I choose to improve my fitness and balance
   - True
   - False

42. I am aware of fall prevention programs in the neighbourhood
   - True
   - False

43. In order to improve my balance and fitness level I have already joined an exercise group
   - True
   - False

E. SECTION E

44. Are you using medication that makes you drowsy or dizzy?
   - No
   - Yes

45. Which statement applies? (multiple answers possible)
   - I have no prosthesis
   - Hip replacement
   - Knee replacement
   - Amputation of:
     - Toe
     - Foot
     - Lower leg below knee
     - Above the knee

46. Medical health problems (multiple answers possible)
   - Vision problems
   - Hearing problems
   - Heart problems
   - Lung problems
   - Obesity
   - Diabetes
   - Cholesterol
   - High blood pressure
   - Osteoarthritis
   - Rheumatoid arthritis
   - Other (please specify)
47. Is there anything else you would like to mention

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

48. In case you are interested in receiving a summary of our findings please leave your email address:

__________________________________________________________________________

In case you do not have an email address, you can contact the physical therapy practice of Gertrud Pijnenburg at the Korte Keizersdwarsstraat 8 from May 2017 onward.
Appendix D: Survey, English version

European School of Physiotherapy
Amsterdam University of Applied Sciences | Hogeschool van Amsterdam
Tafelbergweg 51
1105 BD Amsterdam
The Netherlands