

Design of a data-supported care planning process

Appendix


Master thesis

Xin guo

April 2020

Appendix 1-Project brief

DESIGN
FOR OUR
future



IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

1 USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT
Download again and reopen in case you tried other software, such as Preview (Mac) or a web browser.

STUDENT DATA & MASTER PROGRAMME
Save this form according to the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1!

family name	Guo	Your master programme (only select the options that apply to you):
initials	given name Xin	IDE master(s): <input type="radio"/> IPD <input checked="" type="radio"/> DII <input type="radio"/> SPD
student number	4723651	2 nd non-IDE master:
street & no.	Lorentzlaan 19A	individual programme: (give date of approval)
zipcode & city	3112KE, Schiedam	honours programme: <input type="radio"/> Honours Programme Master
country	The Netherlands	<input type="radio"/> Medesign
phone		<input type="radio"/> Tech. in Sustainable Design
email	736633479@qq.com	<input type="radio"/> Entrepreneurship

SUPERVISORY TEAM **
Fill in the required data for the supervisory team members. Please check the instructions on the right!

** chair	Gerd Kortuem	dept. / section:	ID/IOT
** mentor	Gubing Wang	dept. / section:	ID/AED
2 nd mentor	organisation: _____		
	city: _____	country: _____	
comments (optional)	_____		


Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.

Second mentor only applies in case the assignment is hosted by an external organisation.

Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.


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DESIGN
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Procedural Checks - IDE Master Graduation

APPROVAL PROJECT BRIEF
To be filled in by the chair of the supervisory team.


chair Gerd Kortuem date - - - signature 

CHECK STUDY PROGRESS
To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: 30 EC YES all 1st year master courses passed

Of which, taking the conditional requirements into account, can be part of the exam programme: EC NO missing 1st year master courses are:

List of electives obtained before the third semester without approval of the BoE

name _____ date - - - signature 


FORMAL APPROVAL GRADUATION PROJECT
To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks?
- Does the composition of the supervisory team comply with the regulations and fit the assignment?

comments _____

name _____ date - - - signature 

IDE TU Delft - E&SA Department /// Graduation project brief & study overview /// 2018-01 v30 Page 2 of 7

Initials & Name Guo Student number 4723651

Title of Project Design of a data-supported care planning process

Design of a data-supported care planning process project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date **08 - 10 - 2019** **13 - 03 - 2019** end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

PwD (People with dementia) have several behavioral and mental problems. These include major depression, mania, agitation/aggression, wandering and apathy. These symptoms are all called Behavior and Psychological Symptoms of Dementia. They are also sensitive to the environment they live in. The symptoms of dementia can also cause problems for the patients themselves as well as their caregivers, especially symptoms such as memory loss and changes in mood or behavior. It is suggested that as much as 65% of caregivers do experience depressive symptoms in the process of care, let alone the physical stress they are facing (Zhang et al., 2019).

A personalized care plan is needed to ensure the maximization of the mental and physical well-being of PwD all time because nursing home residents are heterogeneous in their functional status, underlying diagnoses and goals of care (Colon-Emeric et al., 2017) (Good, 2019). The care plan is the output of the care planning process that explains what care the person is having and contingency plans for the future (England.nhs.uk, 2019). It reflects the views points of different professionals in the care giving team.

Care planning itself is a continuous and planned process rather than a one-off event (England.nhs.uk, 2019). Reviews of the care plan is necessary to ensure the fulfillment of the evolving needs of PwD (England.nhs.uk, 2019). The inter-professional team must communicate clearly to make sure that caregivers have all the necessary information such as care details, medications, and etc to make care decisions (England.nhs.uk, 2019).

IPS has the potential to assist the communication in caregiving team. It can track data like location and movement of PwD, monitoring whether personnel have been in contact with infectious patients or whether people have been close to infectious sources (Oude Weernink et al., 2018). These data can be used as the proof of a more objective communication in the care giving team and therefore improve their care decision.

A universal IPS barely exist, the system should meet the specific requirement and user needs in the context (Oude Weernink et al., 2018). In which way the location information can be useful need to be revealed. Issues such as privacy and security also influence the acceptance of IPS (Oude Weernink et al., 2018).

In this project, I want to explore IPS in nursing home context, aiming to help caregivers to upgrade the care plan making process.

Reference:

1. Zhang, M., Chan, S., Wynne, O., Jeong, S., Hunter, S., Wilson, A. and Ho, R. (2019). Conceptualization of an evidence-based smartphone innovation for caregivers and persons living with dementia.
2. Colon-Emeric, C., Corazzini, K., McConnell, E., Pan, W., Toles, M., Hall, R., Batchelor-Murphy, M., Yap, T., Anderson, A., Burd, A. and Anderson, R. (2017). Study of individualization and Bias in Nursing Home Fall Prevention Practices. *Journal of the American Geriatrics Society*, 65(4), pp.815-821.
3. Good, M. (2019). How to Create Patient Care Plan for Improved Caregiving - Together In This. [online] Together In This. Available at: <https://togetherinthis.com/creating-a-patient-care-plan-a-vital-tool-for-caregiving/> [Accessed 27 Sep. 2019].
4. England.nhs.uk (2019). [online] Available at: <https://www.england.nhs.uk/wp-content/uploads/2017/11/dementia-good-care-planning-v2.pdf> [Accessed 9 Oct. 2019].
5. Oude Weernink, C., Felix, E., Verkuijlen, P., Dierck-van Daele, A., Kazak, J. and van Hoof, J. (2018). Real-time location systems in nursing homes: state of the art and future applications. *Journal of Enabling Technologies*, 12(2), pp.45-56.

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image / figure 1: Caregivers taking care of PwD



image / figure 2: Indoor positioning system in nursing home

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

The scope of this project:

In this project, I want to explore the IPS application in nursing home context. The objective of this project is to support a better care planning process that is supported by a platform. The value of the location data and how insights of the data can actually help the care planning process will be revealed in the project. Also, the way insights can be communicated within the care giving team so that it will improve the care decision making will be explored.

The end result will be a product/service design of an assistive digital platform that helps improve current care plan making process. The criteria of the quality of the design would be feedback from the staffs in terms whether this design will improve their communication and make a better care plan.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

Design of a data-supported care planning process. The goal is to support the care plan making process supported by a platform. I aim to deliver a product/service design of an assistive digital platform that helps improve current care plan making process.

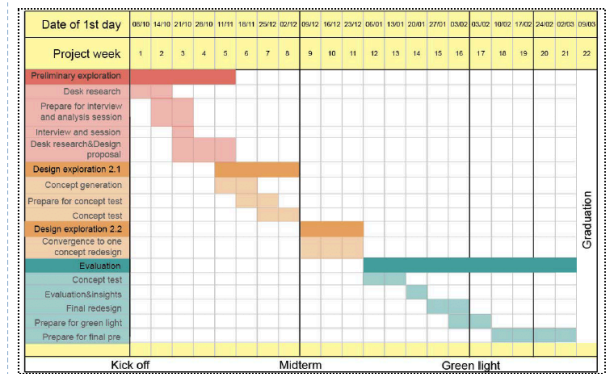
The research questions are listed below:

1. How is current care plan making process like in nursing home Zorggrope Elde?
2. What are the needs and main characteristics of PwD? What factors cause their emotion and behavior changes?
4. What are the reasons for care plan change, especially the factors related to movement and location of the residents?
3. How do the team communicate with each other in current process? What do they communicate to meet the needs of PwD? What are their pain points of communication and how is the desired way of communication like?
4. What is the value of the location information and how insights of the data can actually help the care planning process? In what ways the insights can be communicated within the care giving team so that it will improve the care decision?
5. What are the pros and cons of current assistive tools?
6. How to assist current process of care plan making with the use of the location data?

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 8 - 10 - 2019 13 - 3 - 2019 end date



At the beginning of this project, I will do desk research on PwD to deeply understand their needs and characteristics, the factors that affect their behavior and emotions, the movement and location data that is related to resident condition changes and care decision making, and pros and cons of other data-driven tools on the market. After that, participatory design method will be applied to request relevant stakeholders to join in co-design and analysis activities for better understanding and meeting their needs. The project is made up by 4 phases:
 The first stage: preliminary exploration (4~5 weeks)-1. Do literature research on PwD's needs and characteristics, the factors that affect their behavior and emotions, pros and cons of current assistive tools (1~2week). 2. Collect location and movement data of the residents in the nursing home and analyze the data with staffs to understand reasons for care plan change and the relation between the change and location data. Reveal the value of the location data and what kind/ level of data insights is valuable for different stakeholders in the care planning process (2~3 weeks). 3. Formulate a design proposal based on the insights of above activities (2~3 week)
 The second stage: Design exploration 2.1 (4~5 weeks)-1. Generate concepts based on the design proposal. 2. Prepare and do concept test with the staff to collect feedback on the concepts (1~2 weeks).
 The third phase: Detailed redesign (4~5 weeks)-1. Convergent the concepts/insights into one concept redesign (1 week). 2. Design the new platform in detail (2~3 weeks). 3. Make prototype with flinto (1 week).
 The fourth phase: Evaluation (8 weeks) -1. Do user test on the redesign (2 weeks). 2. Evaluate and gain useful insights on the redesign (1 week). 2. Evaluate and gain useful insights on the redesign (~1 week). 3. Refine the prototype and make final redesign (1~2 weeks). 4. Prepare for green light (1 week). 5. Prepare for the final presentation (2~3 weeks)

introduction (continued): space for images



image / figure 1: Caregivers taking care of PwD

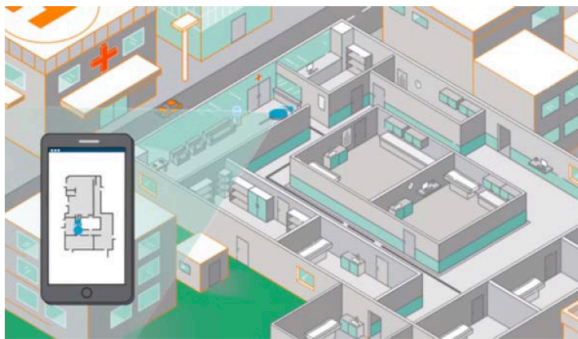


image / figure 2: Indoor positioning system in nursing home

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge on a specific subject, broadening your competences or experimenting with a specific tool and/or methodology. ... Stick to no more than five ambitions.

I am personally interested in health care design. After taking the course Health psychology, I realize healthcare design is closely related to human well-being and our future. The psychology in healthcare domain also interests me. During my internship in a healthcare product company, I found how challenging and complicated the healthcare product is. Hence, I would like to take this challenge and make contribution to this area. This assignment covers not only the health domain, but also data-driven design. Data-driven design is a trend in the future and I would like to explore this field, especially to see how this technology can work well in my project.

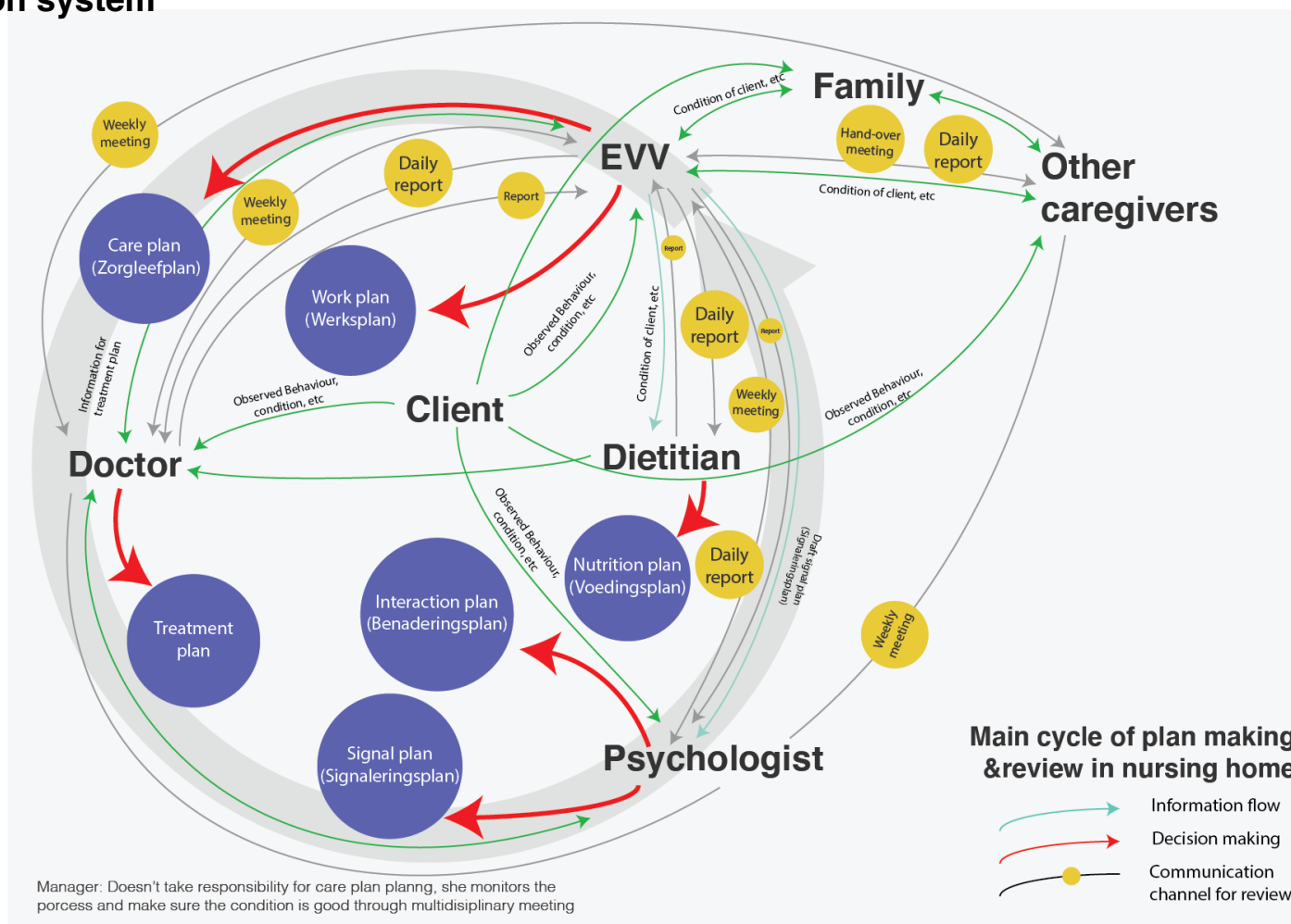
The design project will be a good practice and conclusion of my two-year master study. As a DFI student, I think this project can give me a good chance to do real-life research and design. In the end of the project, I hope my research will be meaningful to the field of health of PwDs.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

Appendix 2- First field study

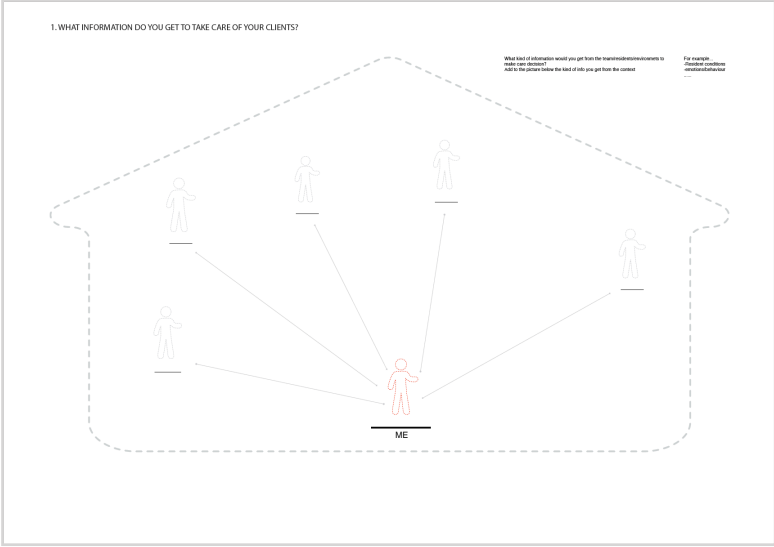
Information system



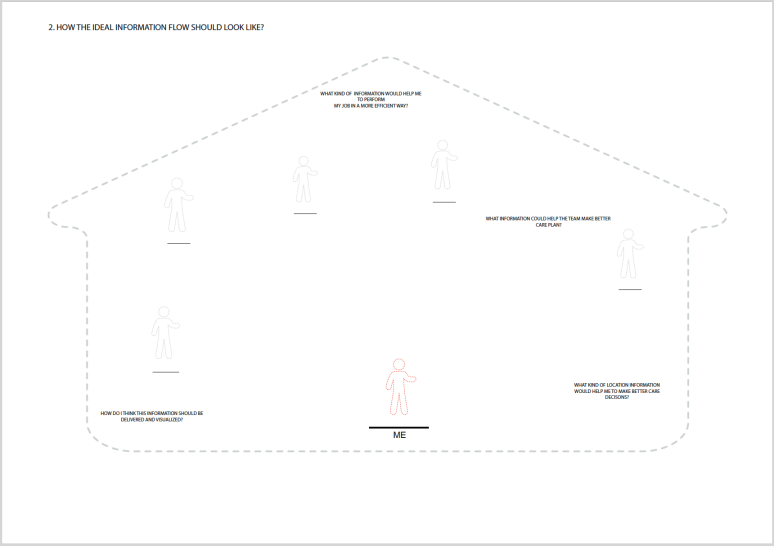
Material of focus group



Sticker



Assignment 1



Assignment 2

Interview scripts

Research Question

Research Questions
1. How can location data help care planning process?
2. How is current care plan making process like in nursing home Zorghrope Elde?
3. What are the reasons for care plan change?
4. What are the factors that influence their emotion and behavior/care plan change?
5. How do they tackle the situations where the BPSD happens?
6. How do the team communicate with each other in current process?
7. What do they communicate to update the care plan/make care plan?
8. What are their pain points of communication and how is the desired way of communication like?
9. What kind of the data insights can actually help the care planning process? What are the desires within this process?

Interview schedule

5 min	00:00 - 00:05	Introduction
15 min	00:05 - 00:20	Assignment 1
5 min	00:20 - 00:25	IPS explanation
20 min	00:25 - 00:45	Assignment 2
10 min	00:45 - 00:55	Assignment3

Interview

Before we start the interview we tell the participants that:

- We are doing this research to get deep insights on their experience and what they want;
- The interview is not a quiz and there are no wrong answers, they can say anything they want to say;
- The session is recorded and being streamed to a room where some people are watching the session.

Sign the consent form

Introduction

First can you tell me something about who you are and what you do in your daily life?

2

Can you tell me something about your job?

→ What are your daily tasks

Assignment 1 – What information do you get to take of your clients?

This assignment is about information flow among your colleague, you and your client, can you map out the information flow in this canvas?

- How often do you have contact with your clients?
- Why do you contact with your clients?
- How often do you have contact with your colleagues? Whom do you contact with?
- What information do you transfer between your client and you?
- Is there any information you miss?
- How do you track those things?
- Would it be useful to communicate with them?
- How would them be useful to make care decision/care plan?
- What do you think are the criteria of good communication in the team?

Assignment 2 – How should the future information flow look like?

We just discussed the current information flows. Now I would like to think about future information flows between your colleagues, your client and you on decision making. Can you draw them on this canvas? You can use these markers and pens if you like.

- How is the experience of current communication?
- What are the pain points of the communication?
- How would you like to improve it?

IPS introduction

Are you familiar with Indoor positioning system (IPS)? It can track location information such as travelling time, speed, and etc. Here is some data we tracked previously.

3

Coding

Part 1

Gu Bing [00:00:00.1] To start with I would like to say that there's no right or wrong answers in this Focus Group.

Gu Bing [00:00:07.9] You are allowed to say everything that you are thinking about what we will have video record with the camera, okay?

Gu Bing [00:00:07.9] To start with, I would like to know what kind of care plan has been made in **Orlando**. So far, there are the ~~zorgleefplan~~, ~~Signalplan~~ and are there any other plans?

Manager [00:01:30.9] Yes, ~~benaderingsplan~~.

Gubing [00:02:02.5] So, so far, I have these plans, are there any other plans that I miss?

Manager [00:02:19.6] Yes, and then we have the dementia model.

Caregiver A [00:02:25] It's telling more about how to give instructions to the old ones and bonding and it says there's four main targets that we focus on. We focus on in the in the bonding at the elderly. And the first one is Who I am so it's a good Barbara. Yeah, we better be bending

Manager [00:02:25] It's the clients. And this is who am I and there are aspects around that so you can think of, what's your personality style? what's your coping style? And then what I do.

Caregiver A [00:03:38.3] And what do I do and that's related to daily structure is in **'having health**.

Gubing [00:04:07.0] Which care plan do you think it will benefit most with the use of location data, we can select one or two to work with today.

Doctor [00:04:17.0] Okay, so maybe back to the beginning so you have a beautiful system made with location at planning and you making now step to integrate the database but why is that so important for you?

Gubing [5:00] Yes, data collection last month, some data are missing, so we think we need to integrate this system more to the current working routine of the whole care team. I want to see what the value of this system is. I think maybe it can help with a care plan making.

Doctor [00:05:17.5] Okay, in making care plan.

Gubing [00:05:17.5] Improving the current care plan process.

Doctor [00:05:27.3] That's an assumption and then you go to which care plan may be there are some choices of what you meant? Is that assumption correct, is that the first thing to do?

Manager [00:05:51.6] Yeah, I was giving answer to the question. How do you do that?

Caregiver A [00:06:09.9] I think that your starting was interesting because now the data collected was based on making the daily notes in the ~~single ring plan~~. So which corridor someone was and what you want to do now is going to improve your system.

Caregiver A [00:06:38.5] It aims to go to this ~~zorgleef plan~~ or to another section of the care, of the care plan. And I think that's very difficult to for us and I don't know ~~what we need right now to start with to combine data and Daily report or something like that.~~

Doctor [00:07:07.0] For me what I have been looking at the system and data that you gave.

Doctor [00:07:19.1] ~~And what I see is that it is interesting data but I'm missing more other data which I think there are already identified so I see the step you made in zorgleef plan, but maybe that's not the data that I missing and I missing more data like: How's the noise? How's the temperature what happened before that? That's something in zorgleef plan, what happens is that what he eats and then he became active, so that's~~

xguo222@yeah.net
Caregiver don't know how to make use of the data yet.

xguo222@yeah.net
1.Data type should tailor to the stakeholder.

xguo222@yeah.net
Doctor wants to know the reason for client's behavior change

something that is interesting. But maybe maybe more data so I see what you're doing by thinking about which data....]

Doctor [00:08:24.4] The system is healthy. Maybe we should first think which data you need before you go to a system. That's my....

Xin [00:08:38.0] Maybe is done with which kind of care plan you're more familiar with You are doctor or psychologist. We come up with four kinds of care plan. Which one are you more familiar with? Maybe you can start from that then talk about how you.....

Doctor [00:08:45] My question is. What do you want to do with that?

Xin [00:09:04.8] Well, we need your help to find out why do we need that? Because we need to think in your perspective how it can help you to improve your process of making a care plan. So we can't just give all the data to you and we also don't know what the meaning of the data.

Manager [00:08:45] I think that's exactly what you say. Only you are making the connection to the care plan. Yeah and Peralta is before that care plan.

Xin [00:09:30] Yes. That's what we want to focus. We can't change the content of your care plan because we are not doctors.

Doctor [00:10:00.0] Yeah, this is the data that we have, we have the time, we have the distance. Yeah, that's what we have and we did try something with the signals and direct and indirect client time. And distance and interaction. And now you're asking me for which care plan

Doctor [00:10:31.6] But for me, it's collecting data for know why. |

Gubing [00:10:33] So I see where you are coming from and the reason why we want to host this focus group is to solve the problem in the middle. Yeah. What kind of care plan you have, then we can see what kind of information you put in the middle? What we are collecting now is raw data, we want to interpret it into some insights to help you make the care plan.

xguo222@yeah.net
2.The stakeholders don't know the meaning of collecting current data.

Caregiver A [00:13:25] It's called the Working plan of the work plan in our map that it's written down. It has written down what we do in the morning. What we do in the afternoon and what we're doing in the evening with our client and those actions are based on the targets that we have in the docs. And based on targets we don't have any more and just give structure to the client in his daily behavior. And in the care that we give.

Doctor [00:14:45.6] Is that what you mean, the activity plan?

Gubing [00:14:45.6] Yeah, so we would like to see because I've learned that the work plan that is almost a fixed and the zorgleefplan needs to be evaluated and updated. Yeah, so I think the data is invaluable to help caregivers to know when to update the care plan.

Company [00:14:45.6] Maybe I can add something, I think it's not just the activity plan but maybe it's better to have a really from the care plan that as you mentioned the goals and the activities together. Then we have a better view of basically with the data that we can collect to design the better work plan based on the goals that you define.

Company [00:15:41.1] And the one more thing that there is no limitation on the data that we want to collect, if you think temperature is important or whatever, please add that because adding the sensors is not the problem. The reason that we limited this form in the first stage was not to make it too complex and then get confused at the end.

Manager [00:15:59] You can make anything.

Company [00:16:11.9] We can make a set of it.

[00:17:02.0] With the first assignment in our mind, here is the first assignment be coming after bicycle who back community that out. But Community it you've met out on his own hats or mint mark and after bicycle.

[00:17:32.1] Who registered, you that before that?

xguo222@yeah.net
There are a lot of to do to reach the goals in care plan.

xguo222@yeah.net
Gubing reads the assignment

[00:17:35.8] And who is the surviving by the how do you communicate and with this question you can use stickers to express your emotions?

Xin [00:17:53.9] You don't have to answer all the questions. Those are just the aspect you can think of the plans.

Manager [00:18:00] I think it's difficult for me to answer that question. Because I'm not related to that. This is the process between the physician and the psychologist and the caregivers.

xguo222@yeah.net
Manager is not responsible for making care plan.

xguo222@yeah.net
Care plan is mainly made by physician, psychologist and the caregivers.

Manager [00:18:00] Okay, but what is important for you as a manager? What kind of information do you get to know whether the quality is good or bad? What kind of information do you get to know that?

xguo222@yeah.net
Multidisciplinary meeting is an important resource for manager to know the condition and quality of the care.

[00:18:54.4] I don't. We have a multidisciplinary meeting with family and all the caregivers, physician and psychologists.

xguo222@yeah.net
The boundary between roles of the manager and the other stakeholders in the care team is very clear.

Manager [00:19:24.6] And I leave that conversation and then I prepare for that meeting, I'll check care plan and I'll check if it's good what's in it, but it's pure information for me. I can't discuss it because it's not my profession and I'm responsible for the process and the caregivers could do his job their jobs good. But yeah, there must be a care plan that but what's in it and the quality of it.

xguo222@yeah.net
Manager assists the other colleges to have a good working process.

xguo222@yeah.net
Manager doesn't have ability to judge if the care plan quality is good or not.

Manager [00:20:24.8] It's with the physician and the psychologist and caregivers. So, I think for me this is a difficult task.

Company [00:20:45] Maybe if may I ask what is the key performance indicators that you can judge if the quality is improving or to what are you looking for in all those discussions?

xguo222@yeah.net
Manager checks the quality of care based on the information from psychologist, caregiver and physician.

Manager [00:20:54.4] Yeah, I check if this sounds horrible, but I check in the meeting if everyone is doing their job so did everybody deliver information for the schools going?

xguo222@yeah.net
Psychologist, caregiver and physician share information on making care plan at the multidisciplinary meeting.

Manager [00:21:24.7] Did everybody deliver information for making of the care plan and that everybody are they good prepared for the meeting.

xguo222@yeah.net
It's the responsibility for the manager to monitor and ensure everyone in the team is doing their jobs and running the process.

Doctor [00:21:30] Yes, and you monitor the process and you monitor the condition. Is that right?

Manager [00:21:35] Yeah. Yeah.

Doctor [00:21:54.5] Thanks. Oh, thanks. Thanks.

Manager [00:22:03.2] I'm responsible for the conditions.

Xin [00:22:56.6] Two more minutes

Xin [00:24:04.4] 30 seconds.

Xin [00:24:18.2] Yeah.

Xin [00:24:32.3] Okay.

Doctor [00:24:36.6] Okay, this is me, Barbara.

<https://my.sonix.ai/r/TkJ7W85Drqhct9jkhNt5Hyz#>

doctor: [00:00:10] I make the treatment plan together with the first contact person (EVV).

xguo222@yeah.net
Treatment plan is made by doctor and EVV,

doctor: [00:00:23] But because most of my treatments are a consequence of the care plan, that is, care plan is the basis. but I made my treatment plan just in case, you know, that's an integrated part is care plan (zorgleefplan). I get my information from the psychologist which makes the interaction plan (benaderingsplan) and the signal plan (singaleringsplan). The signal plan and interaction plan are part of the care plan and a part of the treatment plan.

xguo222@yeah.net
Treatment plan is made based on the care plan

xguo222@yeah.net
Treatment plan may not be used in real life.

xguo222@yeah.net
Interaction plan and signal plan are made by psychologist.

xguo222@yeah.net
Doctor also needs information from psychologist to make the treatment plan.

doctor: [00:01:04] And I get my information from my own observations, the experience of care takers, but it's the total team. So also the activity worker or everybody in the team and signals from the family and the data from temperature.

xguo222@yeah.net
Part of signal and interaction plan will be put in care plan.

xguo222@yeah.net
Part of signal and interaction plan will be put in treatment plan.

caregiver: [00:01:50] how do I get information to help my clients further. That's I get information or tell information meeting weekly meeting with the doctor and with psychologist. That's that's the moment that one of my colleagues is telling about for their which speaking about all the clients on the ward. then we have weekly we have the behandelings overflag (interaction hand-over). that's also a way of the treatment session. we are telling our experiences with what the clients are problems that we that we face, and we discuss it and we come out with targets. There is also a way to how to do we get information daily observation on the working floor and that's based on what I see what I see and what the what the clients would let me see in their behaviour and their well-being. and also contact with family and doctor telling family is also telling different things than the client is telling me. Or sometimes the clients telling me nothing, but the family can tell me more about this emotion or something, something like that. And I always, we always, read back in the daily reports. Based on that We know a little bit how the client was yesterday. and week based on that we can maybe guess what he's doing today. So so that's what I thinking how I am getting my information.

xguo222@yeah.net
The resource of doctor's information is very diverse.

xguo222@yeah.net
Doctor get information for treatment plan from her own observation, the care givers, or the whole team.

xguo222@yeah.net
Caregivers get information on the conditions of clients at a weekly meeting with doctor and psychologist.

xguo222@yeah.net
Behandelings overflag (Interaction hand-over) is a treatment session that caregivers share what they are facing and experiencing.

xguo222@yeah.net
Observation is a way of collecting information for the caregivers.

xguo222@yeah.net
Family, doctor and family are resources for caregivers to take care of their clients.

xguo222@yeah.net
Daily report is a very important tool for them to know the conditions of the client.

[00:04:00] How do you experience of the current communication or the care plan making process?

xguo222@yeah.net
Caregivers also read back daily report to know a little bit about how the client was yesterday or last week.

caregiver: [00:04:10] I think one of them is the daily report. I think that we that that's thing we can do better and maybe there's something we can do with data based on natural form. We see someone was high in tension. He's walking around very much very very much. And where is behaviors, write that down and that's there are some important signals I think. So, that's what that's one of the things I miss like in right now.

xguo222@yeah.net
Caregiver wants to improve the daily report by using data.

xguo222@yeah.net
IPS may detect some signals of the client that can help them report clients' conditions.

caregiver: [00:04:56] I think it's very important that everyone does the same. with the same method and and based on the same principles of what we were writing down. I think we can get something like right there.

xguo222@yeah.net
There is a lack of consistency when writing daily report.

manager: [00:05:16] and more specific describe the the behavior of the clients in the report.

xguo222@yeah.net
The descriptions of the clients' behaviour in daily report lacks consistency.

[00:05:23] why it's hard to make sure everyone is in the same standard?

caregiver: [00:05:34] It's important that just just by to get up our quality and it's also too if we do everything the same when we write everything on the same on the same base that that's that's the point that we understand, also understand each other and know what what we are writing down in which in which moment.

xguo222@yeah.net
Caregivers wants to have a clear understanding of what the others mean in the daily report.

doctor: [00:05:57] We can evaluate interactions. we can evaluate choices they make. so if somebody says "well, it's okay. He has a little bit tension" and the other say "well it was quite tense", so and they do something they need to evaluate all kinds of things that could be the daily rhythm, the interaction with others. So to have a good evaluation. You need to agree on what you see.

xguo222@yeah.net
A good evaluation of the clients' behaviour is required to validate the descriptions of the clients' behaviour.

xguo222@yeah.net
They need a mutual understanding of the condition of the clients.

manager: [00:06:36] Yeah, it's important for the client that they have not too many different ways of communication. There is clear. It's clear for them. But what's expected from them because they don't understand. they don't understand it and if there are caregivers doing it or in their own ways. the chaos is getting bigger in the head of the clients.

xguo222@yeah.net
The way of communication in the team should be understandable for each other.

xguo222@yeah.net
Caregivers have their own ways of writing a report.

xguo222@yeah.net
Misunderstanding will lead to chaotic situation.

doctor: [00:07:12] Yeah, the clients to adapt to the other while we try to find out a system in where we know how to adapt to clients. So, they have the best, optimum, state.

xguo222@yeah.net
They want to know how to adapt to the client.

Manager: [00:07:40] I have a direct connection, that's the thick line, to the caregiver for the health coordination -- EVV (first contact person). If there are problems with the EVV or they are experiencing problems, I give advice, or I am available to discuss the problems or discussion points. So, this is a thick line and with the family and with their physician and the psychologist and the clients. I'm managing the process, but I have no direct line to them. So, they are dotted line. but I managed process and I managed the conditions.

xguo222@yeah.net
Manager helps EVV directly when they have problems.

xguo222@yeah.net
Manager has indirect contact with the family, physician, psychologist and the clients.

xguo222@yeah.net
Dietitian shares information on nutrition problems to doctor at the beginning of making a plan.

dietitian: [00:08:51] I did try to make it clear which I communicate with. start always with communication with the doctor. she asks my help for nutrition problem. then I usually go to the EVV and together we make a plan that's helping the client. If needed I could also talk to psychologist. If they have also influence on the food issues and we communicated together to the rest of the caregivers.

xguo222@yeah.net
Dietitian makes the nutrition plan with EVV.

xguo222@yeah.net
Sometimes dietitian talks to psychologist when making the plan

xguo222@yeah.net
The rest of the caregivers need to be informed if the clients have food issues.

[00:09:38] So this is the overall system and what do you think the system needs to be improved?

xguo222@yeah.net
Dietitian sometimes make a plan with the EVV.

xguo222@yeah.net
Not every caregiver has the information on taking of their client from the care plan.

dietitian: [00:09:48] sometimes have a plan with the EVV. And then the rest of the caregivers don't seem to get all the information. It's in the system most of the time but it doesn't show up at the moment when it is needed. [00:10:07] when it is a very large example menu they hang out in the kitchen and it will be fine. But if it's our small advises such as giving a little more often chocolate milk or give a little more meat on the bread, that kind of advice is sometimes forgotten because they're not very special and they are not showing anywhere in the direct area of the kitchen or where it is prepared. So that kind of advice is sometimes are forgotten it is in the information but it's getting overwritten.

xguo222@yeah.net
They can't always get the necessary information conveniently from current working system.

xguo222@yeah.net
Large example menu will help them remember necessary food.

xguo222@yeah.net
It is more possibility that the little advice/information will be missing.

xguo222@yeah.net
Little advice is normally not very special and easily ignored.

doctor: [00:10:58] because it doesn't go in the work plan (werkplan)? or does it come in the work plan but still forgotten?

xguo222@yeah.net
Little advice doesn't go to work plan.

xguo222@yeah.net
There is some informal information that is helpful for the client.

dietitian: [00:11:04] And I think it doesn't go to work plan but I am not sure.

xguo222@yeah.net
Dietitian doesn't really have a track of the little advice flow (informal information flow).

dietitian: [00:11:38] They have made a little food plan (voedingsplan). Yeah, I heard they're working with it and it's working better than the old system. So that's already improving.

doctor: [00:12:02] But I think this is a systemic problem. Because there are a lot of plans and they have activities, but activities are really very small, so they should end up in the activity plan, but it has so much with every patient. You can have a 30-page activity plan so they cannot look at it, and on the other hand, to do everything the same they should look at it, but they should have information on the moment that it's necessary. And that's something I think it is a systemic problem. You have the information on the moment when you need it because you cannot have everything in your head. They have a kind of small population, and small team so they have a lot of information if you compare it with other wards, but still they cannot have all information in their head.

manager: [00:13:34] so if you are in the kitchen, and select food, then everything related with food will pop up.

dietitian: [00:22:58] the central place you write down all the information. It would be perfect if everybody can reach it in an easy way. There's no papers or copies or something else. Just one form it will be working, and we communicate with EVV.

xguo222@yeah.net
Food plan is being made.

xguo222@yeah.net
There are a lot of plans in the ward.

xguo222@yeah.net
In every plan, it consists of many activities.

xguo222@yeah.net
The information of each patient in the plans is overwhelming.

xguo222@yeah.net
It's hard to get the right information at the right time at the right place.

xguo222@yeah.net
There is a systematic problem in terms of the plans.

xguo222@yeah.net
It's hard to memorize all the information.

xguo222@yeah.net
The team of the ward is small, the memory burden therefor gets bigger.

xguo222@yeah.net
In big wards with many staffs, it's also hard to memorize all the information.

xguo222@yeah.net
They need necessary information whenever it's needed.

xguo222@yeah.net
Dietitian wants to reach the information easily.

xguo222@yeah.net
They want a simple form of plan.

Part 3

Dietitian [00:00:00.54] And the other caregivers can get information out of it and put information in.

xguo222@yeah. ... Dietitian wants a system that she ↓

xguo222@yeah. ... Family may have questions.

Dietitian [00:00:06.37] And I would also like if family can look in it and also write it if they have questions or they observe their relatives love something to eat or not clothing. Or they observe something else in their behavior a lot more to me, because they see also a lot of things I would never see or think about it.

xguo222@yeah. ... Dietitian wants to know the feedback ↓

xguo222@yeah. ... The information provided by family ↓

xguo222@yeah. ... Family observe clients' behavior ↓

xguo222@yeah. ... The information from the clients' ↓

Gubing [00:00:30.66] Yeah. And you think currently what other tasks that Qic (the software used by the caregivers) can do?

Dietitian [00:00:39.7] It can do almost anything if they have to get it on Ipad and we have to carry this around all the time and we have to put that in the kitchen and one in every place. I think instead of coming back, it's coming.

xguo222@yeah. ... Qic can help dietitian do everything ↓

xguo222@yeah. ... It's not convenient to carry the Ipad ↓

Gubing [00:01:03.36] How do you think the IPS data will help you?

Dietitian [00:01:05.18] They make the information objective instead of subjective.

xguo222@yeah. ... The data can offer the dietitian ↓

Gubing [00:01:10.56] Where in the system you would like to see it ?

Dietitian [00:01:12] In the middle of the system. The data's telling us more about subjects to see and see what happens.

xguo222@yeah. ... The dietitian wants the data in the ↓

xguo222@yeah. ... Dietitian wants to know more about ↓

Gubing [00:01:36.53] Thank you.

Manager [00:01:39.9] I think the information is important. It's for the care giver.

xguo222@yeah. ... Environment information such ↓

Manager [00:01:51.9] I think it's the environment, the lights, noise and temperature. Crowdedness, the smell, the interior decoration. And that gives sensory information.

xguo222@yeah. ... Manager wants sensory information ↓

xguo222@yeah. ... Social environment is important for ↓

Manager [00:02:03.33] And we do lots with sensory. It's sensory information. And I think this social environment is important. The family visits. Yeah, the quality and quantity of

xguo222@yeah. ... Family's visits affect the social ↓

xguo222@yeah. ... The quality and quantity of all the ↓

xguo222@yeah. ... There may be discipline time that ↓

all the staffs because if there are the other disciplines at which time they are coming and what's the influence on behavior and the fellow residents.

Manager [00:02:33.12] So what's the interaction between them and when? Is it tension, when is tension getting up and when is the tension getting down? What's the influence? It should be great if you could measure it.

Manager [00:02:49.83] And I think it's this is for me, the most important, the influence of the verbal response.

Manager [00:02:59.94] First, non-verbal response because they are doing much more with non-verbal response, but we have no proof. We couldn't show it to the world.

Manager [00:03:19.92] That's the most effective way. And and for me, this is the most important. Go in depth with your interaction with the clients. And in depth, let's talk more nonverbal content.

Gubing [00:03:36.5] Thanks. Thank you, dear. Where would you like to put the IPS data?

Manager [00:03:44.3] I don't have any clue.

Manager [00:03:52.58] Yeah. For me, these. These are the most important things.

Manager [00:04:01.05] I think you could measure the verbal response with decibels in decibels.

Manager [00:04:10.33] she is explaining what she said to the caregiver. Then you could measure the interaction time, the direct client time. And if you could measure the decibels from which our voice is producing.

Manager [00:04:33.31] Yes.

Manager [00:04:35.43] Um, if you could measure that, then you could relate it to direct client time.

xguo222@yeah.net
The interaction between the clients and staffs may cause behavior change.

xguo222@yeah.net
They want to know when the tension happens and disappears

xguo222@yeah.net
The influence of the tension is interested to the care team.

xguo222@yeah.net
What are non-verbal and verbal response.

xguo222@yeah.net
The most effective way of using the data is in a non-verbal way.

xguo222@yeah.net
The influence of the non-verbal response is very important for the client.

xguo222@yeah.net
Non-verbal interaction is easier to be in-depth studied.

xguo222@yeah.net
The verbal response could be measured with decibels

xguo222@yeah.net
Indirect and direct interaction time can be measure with decibals

xguo222@yeah.net
Direct client time can be measured through decibals.

Manager [00:04:42.06] I think that's something like that.

Manager [00:04:47.02] He could make it. You said you could make everything.

Company [00:04:56] Yes, some stuff. As I should. It must be an experience.

Manager [00:04:58.15] if you know the direct client time, that is the time that you have direct contact with the client, you can see the reaction of his behavior when you talk to him and the reaction of his behavior when you leave him alone. |

xguo222@yeah.net
Direct contact time can help the caregiver find the point when the client has behavior change.

xguo222@yeah.net
The reaction of the client when having a direct contact and after the direct contact is important information for the caregivers.

Manager [00:05:21.0] And this is why I give training and I give workshops and help them outside this organization. And this is part I have to do a lot of efforts to make it clear to the world what we are doing. And, um, it's it's it's hard to to explain that.

Manager [00:05:50.11] And I think if we we could measure this and we could we could prove that it's working. |

xguo222@yeah.net
Manager wants to prove the direct contact affect clients' behavior.

Manager [00:05:59.61] That would be a nice side effect of your study. |

xguo222@yeah.net
Proving direct contact affecting clients behavior may not be the top priority

Gubing [00:05:59.61] Yes.

Manager [00:06:06.37] And it's should give information to our another study, scientific study. (the name of the study).

Manager [00:06:18.58] And they are. And that's.

Manager [00:06:22.98] Yes. In essence,,

Manager [00:06:28.68] it studies the influence of the context on behavior problems. And this could be the connection between both studies and.

Gubing [00:06:42.67] And that was the location and the movement data. You think they will be used together with the sound data. |

xguo222@yeah.net
Location and movement data could be used with sound data.

Gubing [00:06:51.27] So, yeah, yeah. Yeah.

Caregiver B [00:06:56.79] I have to do it. Sorry. Can I listen? So we do together. Yeah, yeah.

Doctor [00:07:04.72] Yeah, yeah. Okay.

Doctor [00:07:09.52] What I did, I had collected all kinds of data that could give us information about how to treat some people in the broader sense in the world. And then that collection, the nurse, me, this psychologist, we all want to know. Then we make a conclusion and that we put in that zorgleefplan.

Doctor [00:07:43.44] So this is all data that I would like to have together.

Doctor [00:07:48.84] But the most important part of this is that I would like to combine those.

Doctor [00:07:55.53] So, for example, I have here environment. How much noise is there? And here is the mood, how agitated somebody is. So if I can see that every time we see a mood change, there is noise in the surroundings that just gives us a clue. But also, if there is fatigue, maybe to have that with body signals with high blood pressure or with a pulse rate going up. Maybe then we know there is a mood change that we didn't see already or the sleeplessness. Did they have a lot of sleep that day or not?

Doctor [00:08:40.26] How's the sleep cycle? The walking distance, movement. Does it give relaxation? Lowering in the pulse? Because sometimes when people are agitated, they have sort of rest by getting moved, but sometimes they get more agitated (because of moving). So the pulse will go up and the mood changes, it goes up or down.

Doctor [00:09:11.01] The visits and activities, visits, care, nice activities, which is nice, which gives a mood change, a change of fatigue. So I would like all those parts. Here is daylight. So do the lights from the lamps. Also how is the season changes? Because we have a lot of changing seasons, right here, you know that already.

xguo222@yeah.net
Doctor wants to have all kinds of data

xguo222@yeah.net
Doctor want to make conclusion about care together with care givers, psychologist.

xguo222@yeah.net
Doctor wants to combine some data.

xguo222@yeah.net
Doctor want to see the reation between mood and agitation, and etc.

xguo222@yeah.net
Noise may cause mood change.

xguo222@yeah.net
Fatigue may be related to body signs such as high blood pressure or with a pulse rating going up.

xguo222@yeah.net
They will miss some mood change

xguo222@yeah.net
They could miss the track of sleepness of the client.

xguo222@yeah.net
They want to know the if the client had enough sleep or not.

xguo222@yeah.net
Doctor wants to know the walking distance and movement of the client.

xguo222@yeah.net
Doctor wants to know the sleep cycle of the client.

xguo222@yeah.net
Doctor wants to know the pulse of the client.

xguo222@yeah.net
Pulse rate is related with mood change.

xguo222@yeah.net
Visit and activities can cause mood change.

xguo222@yeah.net
Doctor wants to know which kind of activities are good and which are bad.

xguo222@yeah.net
Doctor wants to know which activities, visit causes mood change or fatigue.

xguo222@yeah.net
Seasons change can cause mood change .

Doctor [00:09:37.6] You know this already and that gives highlights a lot of changes in people.

Doctor [00:09:45.27] You see now that a couple of good days, that changes people on the floor and co-workers. But when it's raining a lot, you see changes, that would be interesting.

Doctor [00:09:57.84] For example, the positions, where are they. It's nice to know if the room they stand comfortable.

Doctor [00:10:07.97] Look at that, satisfying result. Because it's sometimes very difficult for nurses to say: It's worked well, this work not well. But when the interaction is satisfying, sometimes they report it. They don't report us satisfied with the interaction.

Doctor [00:10:28.98] Sometimes they report it, But they don't report I'm satisfied with this interaction. And I think that is a value that is very subjective, but has it in the in the core has something objective? I think that's the satisfying feeling of nurses. It is very important in the interaction.

Doctor [00:10:56.34] You can have all the theories about that, how important that is. something the body signals. So I would like all these data. I find information from the family (pointing at the dietitian), that's something I think a lot of people, a lot of families need.

Doctor [00:11:22.31] They sometimes feel like they're shouting at the desert. A saying in Dutch. Yeah. They sometimes say things and we didn't get that information.

Doctor [00:11:36.27] That doesn't come to the right time on the right place.

Doctor [00:11:41.25] Sometimes they're saying the action to make sure he was feeling well and then they read three days later and that's when we need go home. And then the man hit somebody on the other ward, for example. I told them! (family) Yeah. That's the information maybe it's also nice to have. Maybe also we should know.

Doctor [00:12:07.12] If I may interrupt. But looking at the time.

xguo222@yeah.net
Doctor wants to know if the room they live is comfortable.

xguo222@yeah.net
Location of the client could be related to the comfort of the environment.

xguo222@yeah.net
Sometimes, it is difficult for the caregivers tell if the care works well or not.

xguo222@yeah.net
The satisfaction of the interaction between caregivers and the client can tell if the care works well or not.

xguo222@yeah.net
The satisfaction won't be reported by the client every time.

xguo222@yeah.net
Care givers sometimes will report the satisfaction level in the report.

xguo222@yeah.net
The feeling of satisfaction is very subjective.

xguo222@yeah.net
The object in the core of satisfaction feeling is interesting to find out.

xguo222@yeah.net
Caregivers need to feel satisfied when interact with the clients.

xguo222@yeah.net
Body signals may tell the satisfaction level of the care givers

xguo222@yeah.net
They need information from family to support their care.

xguo222@yeah.net
Family may know information the care team don't have.

xguo222@yeah.net
Information from the family doesn't always come immediately when it's needed.

xguo222@yeah.net
There is a time and location boundary between the family the care team.

xguo222@yeah.net
Family members don't always get the information from the care team immediately.

xguo222@yeah.net
The care team want to know the cause of some behavior change of the client from the family.

Doctor [00:12:11.88] Yeah. this is about the end of the session.

Gubing [00:12:15.68] And to close off session, I wondered if you have questions?

Gubing [00:12:15.68] How you experience your study. What is my experience with this experience of the study? I think it is.

Gubing [00:12:34.23] So sometimes we think we have the tag ready to collect the data. So we go back and figure out why. [And this is also going back to see how to make this data really valuable. So people start to wear the tags at the right time.]

xguo222@yeah.net
Care givers may forget the tags sometimes.

Gubing[00:12:55.63] You will not forget the tag.

Doctor [00:13:00] I think you say right thing. [If it's valuable, they will wear it more.]

xguo222@yeah.net
Currently, the caregivers don't see the value of the IPS data.

Doctor [00:13:00] [00:13:08.1] They will.

Manager [00:13:09.74] More good. So cute to say if it's too far off of their bets. That's. Yeah that's an expression.

Manager [00:13:18.32] [It's, it's, it's, it's far from their comfort zone. So most of the caregivers are not familiar with scientific studies and they don't see enough the value of it. But I think if you, the farther you going in your process and the session for next week, the care givers would give you a much, much information, but they are getting a lot of information, too. So that's important. And people like Locus, I'd like you guys should promote it possibly more. I do my best.]

xguo222@yeah.net
Care givers need to see the value of IPS data to be more engaged in using the tag.

Care giver B [00:14:05.81] Yes, yes. Yes. So it's, uh. But that's good for us. Generally, there they are.

Manager [00:14:15.54] They have the attitude from the first see and then they have to see and then believe it.

Manager [00:14:21.41] Yes. And that's so. So, yeah, it's a pity that some. But it's so.

Themes

Others					Information overload				Value of data				
Goals of the plan	Too many activities.	Too many plans	Too many channels	Too many information sources.	(Data can be the objective detection and evaluation of the subjective description.)								
Activity plan is used to achieve the goals in the care plan.	They will miss some mode changes.	There are too many plans in the ward.	Behandeling (interaction hand-over) is a treatment session that caregivers share what they are facing and experience.	Family, doctor are resources for care givers to take care of their clients	Data for detection	Data for reference	Data for filtering	Data for evaluation					
There are a lot of to do to reach the goals in care plans.	It's hard to memorize all the information.	There is a systematic problem in terms of the plans.	Manager helps EVV directly when they have problems	Doctor gets information for treatment plan from her own observation, the care givers of the whole team.	Doctor wants to know the reason for clients' behavior change.	Pulse rate is related with mood change.	The manager thinks that the information from the plans should be provided depending on the time, location, and the activity that caregivers is doing.	Manager wants to prove the direct contact affect clients' behaviour.					
Plan making	The team of the ward is small, the memory burden therefor gets bigger.		Care givers get information on the condition of clients at a weekly meeting with doctor and psychologist	Doctors also needs information from psychologist to make the treatment plan.	The care team wants to know the cause of some behavior change of the client from the family.	The reaction of the client when having a direct contact and after the direct contact is important information for the care givers.		The manager thinks it's important for her to prove the effectiveness of non-verbal interactions.					
Part of the signal and interaction plan will be put in care plan.	In big ward with many staffs, it's also hard to memorize all the information.			Observation is a way of collecting information for the care givers.	The influence of the tension is interested to be care team.	Doctor wants to know the walking distance and movement of the client.							
Dietitian shares information o nutrition problems with doctor at the beginning of making a plan.	The information of each patient in the plans is overwhelming.			Treatment plan is made based on the care plan.	Doctor wants to know if the room they live in is comfortable.	Doctor wants to know if the client had enough sleep or not.							
Dietitian makes the nutrition plan with EVV.				Manager has indirect contact with the family, physician, psychologist and the clients.	They want to know when the tension happens and disappears.	Fatigue may be related to body signs as high blood pressure or with a pulse going up.							
Food plan is being made.		Incoherent information			Doctor wants to see the relation between mood and agitation, and etc.	Body signals may tell the satisfaction level of the care givers.							
Interaction plan and signal plan are made by psychologist.	Current ways of writing daily report lacks in consistency.	Care givers want to know the other care givers report better	Mutual understanding is important to make sure the quality of care is good.	The description is subjective and not everyone write the report in the same way	Doctor wants to know which activities, visit cause mood change or fatigue.	The verbal response could be measured with decibels.							
In every plan, it consists of many activities.	The descriptions of the clients' behavior in daily report lacks consistency.	Care givers wants to have a clear understanding of what the others mean in the daily report.	They need a mutual understanding of the condition of the client	The caregivers have their own ways of writing the report.	Doctor wants to know which kind of activities are good and which are bad.	Indirect and direct interaction time can be measured with decibels							
Treatment plan is made by doctor and EVV.	There is a lack of consistency when writing daily report.	Misunderstanding will lead of chaotic situation			Doctor want to combine some data.	Direct contact time can help the care giver find the point when the client has behaviour change.							
Treatment plan is made by doctor and EVV.	There is a lack of consistency when writing daily report.	Misunderstanding will lead of chaotic situation				Doctor wants to know the sleep cycle of the client.							
Manager is not responsible for plan making, she monitors the process and condition.	Incomplete information				What they want								
Part of signal and interaction plan will be put in treatment plan	They will miss little advice in information flow.	Information from family is important but missing.	Information might loss during delivering		Care givers need to feel satisfied when interacting with the clients	They want to improve daily report	They want of get access to the information conveniently	They want to validate the descriptions of clients behaviours	They want a simple form of plan	Care givers want to know the other care givers report better	Dietitian wants a system that can be used to exchange information easily	Doctor wants to make conclusion about care together with care givers and psychologist.	
Communication channels	Not every care givers has the information on taking care of their clients from the care plan.	They need information from family to support their care.	Dietitian doesn't really have a track of the little advice flow.		The satisfaction of the interaction between care givers and the clients can tell if the care works well or not.	Care givers wants to improve daily report by using data.		A good evaluation of the clients' behaviour is required to validate the descriptions of the client behaviour		Care givers wants to have a clear understanding of what the others mean in the daily report.	Dietitian wants a system that she can exchange information easily with the care givers.		
Behandeling (interaction hand-over) is a treat ment session that caregivers share what they are facing and experience.	It is more possibility that the little advice/ information will be missing.	Dietitian wants to know the feedback from the family.	They will miss mood change in information flow.		Care givers sometimes will help report the satisfaction level in the report.			Doctor wants to see the relation between mood and agitation, and etc.		Misunderstanding will lead of chaotic situation			
Manager helps EVV directly when they have problems	They will miss some mood changes.	The information from the clients' family can be an important supplement for the dietitian.	Not every care givers has the information on taking care of their clients from the care plan.		Care givers need to feel satisfied when interacting with the clients					The way of communication in the team should be understandable for each other.			
Care givers get information on the condition of clients at a weekly meeting with doctor and psychologist		Family may know information the care team don't have.	It is more possibility that the little advice/information will be missing.		Social environments								
Care givers get information on the conditions of clients at a weekly meeting with doctor and psychologist.		Family and care givers can't communicate conveniently.	They will miss some mood changes.		Social environment can influence behaviour and emotions								
Role of plans		Information from the family doesn't always come immediately when it's needed.	The rest of the caregivers need to be informed if the clients have food issues.		Noise may cause mood changes.								
Treatment plan may not be used in real life.	It's hard to get the right information at the right time at the right place.		There is some informal information that is helpful for the clients.		Family's visit affect the social environment in the nursing home.								
The boundary between roles of the manager and the other stakeholders in the care team is very clear.	Family observe clients' behaviour more than the dietitian.		Little advice is normally ignored because it's not very special and easily ignored.		They want to know when the tension happens and disappears.								
					Visit and activities can cause mood change.								
					Social environment is important for the client.								

Appendix 2-Care plan

Confidential

Confidential

Confidential

Confidential

Appendix 2- Second field study

Interview with Dietitian

1. Can you tell us your role in the care team?

I advise the EVV and nurse on how to give the food, the optimal way of food.

1. As a dietitian, do you need to give input when making the care plan? (If not, do you give input during daily care?)

Care plan is everything that is important for the clients. I advise on giving right food. Some are long, some are short.

2. When do you involve into the care plan making process? In what occasions do you usually contribute to the process (A meeting, etc)?

More of the time, I contact with the EVV.

3. Last time in the focus group, you mentioned that you want to know some objective information; your little advice might not be included in the work plan so that the information will be missing. Can you elaborate more about that?

My advice is only written in my report, but sometimes they just disappear. The most objective is the nutrition data, and weight, walking. There are some other objective data I would like to have. The muscle rates.

4. Can you list the steps you take for occasion in the timeline?

For you, what are the steps of the occasion? Can you list them in the timeline?

Got asked by the doctor to visit. Read the medical report. BIM. Read the BMI, not a few days back. Have a discussion: How is the person? Who is the person? Is she lazy or walking a lot? I would like to have the nutrition she has. Does she eat well or not? Take notes, then write the report.

5. Do you read the daily report for the occasion?

Before the discussion, she will read it. It would be better if the report could be more objective.

Interview with Psychologist about Weekly meeting

Gu 0:01

We've talked about how we can use data to help with the care plan making process. And the goal of this meeting is for us to understand more about the weekly meeting you have with the EVV. So, to start with, we would like you....

Psychologist 0:20

Do you mean the more people from team or only with the EVV?

Gu 0:25

So the weekly meeting you have.

Psychologist 0:27

Like this day

But it's not only the EVV, just who works at that moment. Also, always three or more people from the team, and the doctor Monica, Emma and me, they always are there. And mostly, when it's possible, Malone. and me.

Gu 0:53

Okay, I see. So, these are the participants of the meeting. Yes. And what is the aim of the meeting?

Psychologist 1:02

The aim is to first when there is a new client and we have to learn how would this support Nita? So we have talked about the person and use the Demon simon da (Dutch), maybe you have heard of it. So, together we make, yeah, we see who it is and what the needs are, also we at that the meeting it is meant for when we have multi-disciplinary overlap(Dutch) and MDO. We prepare at that time so we say where are we, how far is the client? Is it possible to go to another place or do we have every.....

Gu 2:42

Oh, yeah.

Psychologist 2:45

Goals achieved. If we have the big name we see if we have achieved our goals with that client it's also a purpose of the meaning of the team.

Gu 3:02

Hand-over Meeting.

Psychologist 3:05

But also it's for when the actual problems with a client like somebody is, is more restless than before we talk about it, then see if we can do something. So with this also for the short-term goals with clients we use also that meeting. So it's a very busy meeting where we have to do a lot. It's mostly full. Mostly not enough time to do what we want to do, but we have a weekly, it's special order.

Bought not updating, don't have to watch don't have the possibility for a weekly moment with each other. It's a special, it's because it's the only other we have it between.

Gu 3:55

And would it be okay for us to observe that meeting at 2 pm today.

Psychologist 4:01

Yeah, that's okay. I have to be, I have this time of day today. I have a big meeting with all my colleagues after that at 3 o'clock, so I have to be in time to go so but this so it won't end before three o'clock then. Okay, advice.

Otherwise I won't get in time.

Goal of weekly meeting

Gu 4:24

Sure.

Psychologist 4:25

But it's not a problem. Yeah.

Gu 4:27

Yeah. And before the weekly meeting, what are the tasks that you do

Psychologist 4:33

Before

Gu 4:34

You can talk to me about the last time you prepare for the meeting.

Psychologist 4:40

I don't actually really prepare, the team makes an agenda, what they want to bring in and they see if there are MDO plans, so and what are the problems for the time and if we have new clients, we have to know better. They also put it on the agenda.

Gu 5:00

So, you are nearly involved in attending the weekly meeting. So, when you are there, what are the tasks you need to do during the meeting

Psychologist 5:12

The tasks, well I have to follow the agenda. My task is to get ...The first time to the acute problems have to be talked about because people go back to the to the ward, they have to know what to do.

But also we have to talk about the new people like ...they started last week we talked about a horse (Dutch), that's also a new client. And then we talked about the dementia down (Dutch). We needed to hold an hour for that. We want to do as much as we can, but we can only do what we find time for. Yeah.

Gu 6:11

And during the weekly meeting, how do you experience it? As, how do you feel?

Psychologist 6:21

Needs of management

For me it's a very good meeting always, because it's time that we can talk with a lot of, with all the disciplines that are involved with the client, at least this brings who are involved to this, when there are behavioral problems, like the dietist would be there only if we asked but not always. But for me, it's very nice every week I see other people from the team, so everybody sometimes will be there. And it's the best way to talk about how we do the things and improve it.

Yes. And in our last focus group, we identified that there are four information issues that people tend to encounter in the ward. And we categorize them into incoherent information, incomplete information, information overload, and missing information. Below we give an example about what we mean by that term.

And we would like to see if you experience any of these problems during the meeting

Psychologist 8:19

I think this is what very often is the case because we have to look for more information to know things

This, you see this is a different thing, missing information and incomplete. Yeah, I have to read it.

Gu 8:39

Yeah. So incomplete means we didn't put the data in the system. Missing information is we put it in, we discussed about it, but then it's forgotten.

Psychologist 8:46

Ah, Yeah., I have to say You mean this is related to the data. It's not like what is talk about that it's related to the data you delivered.

Gu 9:07

This is only this is about information, you're currently doing now.

We'll talk about the data later. Okay.

Psychologist 9:41

And your question is what problems we have with the weekly meeting?

Gu 9:48

Yeah.

Psychologist 9:50

Well, I don't know I don't know if we have incoherent information
But mostly we have missing information and incomplete information.
Not overload. I don't think the problem is overload.

And how did you come to these conclusions?

Gu 10:24

So we transcribed the focus group. Yeah. And then we coded for
each sentence we interpreted ourselves.

Psychologist 10:43

Yeah. But the focus group you was the focus group where we had
the data data, and

Gu 10:50

No, no, no, no.

Psychologist 10:53

I wasn't there.

Okay,

We focused on the problems of current information flow when you're
making the care plan.

Gu 11:09

And we also in the focus group in the morning when you are not
here, we talked about how we can use data to improve the care plan
making progress. And we identified four themes as well.

So, which is data for reference for detection, for evaluation, and for
filtering. These are just examples that we selected from the whole
transcript to remind you or to that, you'll be more contextualize what
we mean by that.

And we are reading the information. If you have questions you can
ask them and you can think about if they gonna be helpful to deal
with the missing information or incomplete information in a weekly
meeting

Psychologist 13:33

But I don't understand why this is evaluation, you say a verbal re-
sponse.

Yes, it's non verbal response. You mean the response of the the
caregiver?

Gu 13:54

Yeah. So this is mentioned by Barbara. So yes, she means the verbal
response by the characters. When they interact with the clients, she
thinks non verbal response are very important. Sometimes even more
important than verbal response. And then she would like to use data
to evaluate if her hypothesis is correct.

Psychologist 14:51

Yeah. And you have a question with the if I think it's what what this
would you say? I recognize it.

Gu 15:01

Yep. So my question is about how do you think the data can help you
to remove the missing or incomplete information in their weekly
meeting?

Psychologist 15:18

Yeah. But I think in combination with other thing, I think like now we
did like Monday. I think it's much, way too much time to do it. We
can't do that often because then there should be something more to
like data like, where you can measure if there is aggregation, or, be-
cause then otherwise, I don't think we will use it enough. But you are
in the middle of the maybe it's the...but if when when there are more,
there's more information and only the movements and the place
where people are, I surely think we can use it for missing, missing
and the other incoming complete information. Yeah.

Gu 16:14

You like a data for reference or for detection?

Psychologist 16:22

For detection at first but this also is a good, good aim I guess.

Location data for detection by psychologist

Psychologist 13:33

But I don't understand why you're interested in non-verbal response.

Yes, it's non verbal response. You mean the response of the the caregiver?

Gu 13:54

Yeah. So this is mentioned by Barbara. So yes, she means the verbal response by the characters. When they interact with the clients, she thinks non verbal response are very important. Sometimes even more important than verbal response. And then she would like to use data to evaluate if her hypothesis is correct.

Psychologist 14:51

Yeah. And you have a question with the if I think it's what what this would you say? I recognize it.

Gu 15:01

Yep. So my question is about how do you think the data can help you to remove the missing or incomplete information in their weekly meeting?

Psychologist 15:18

Yeah. But I think in comparison to what we think like now we did like Monday. I think it's hard to do it. We can't do that often because there's something more to like data like, where you can measure if there is aggregation, or, because then otherwise, I don't think we will use it enough. But you are in the middle of the maybe it's the...but if when when there are more, there's more information and only the movements and the place where people are, I surely think we can use it for missing, missing and the other incoming complete information. Yeah.

Gu 16:14

You like a data for reference or for detection?

Psychologist 16:22

For detection at first but this also is a good, good aim I guess.

Gu 16:34

And yesterday in the meeting, Amanda says the insights will contribute to the day structure

Is day structure part of the work plan.

Psychologist 16:48

Yes, yeah.

Yeah, sorry. That was good information but it took so much time to compare, the client said.

We understand the time **Trying out new options** last questions. It's gonna be quick. So after the weekly meeting, are there any tasks that you need to do?

Sometimes we make an appointment, like do the depression screening or try out what we what we make. How do you say that? Yeah, we have new new tasks are new. So that maybe we use sometimes we use that week to try out to experience these ideas from the meeting. And one person from the oleander will make a report in the client, pushy. Okay. Yeah. And how do you feel after the weekly meeting when you make appointment? And will you make implementation of the new ideas?

Psychologist 21:52

I don't know where we have to meet them. It's a small it's a small room I have to see what's possible in the empty room. It's near my

Because mostly we find a better way to react to clients here. Not every meeting is the same. Sometimes we don't get that far. Mostly, it's a very, yeah, it's a good meeting and it feels good to me. Especially because we are with more people together. And every week problem (Dutch) , one person after Oyama(dutch) and we have also a visit, but then we only are one person from the caregivers. And then it's mostly more like a physical problems or short things to say to this, this afternoon, we have more people and the more we can talk about the things we do, the better, I guess.

Gu 20:41

The last question is about what does the meeting contribute to the care plan making for the EVV?

Psychologist 20:56

Well, sometimes we make a new appointment.

And they have to be also finding back in the care plan. We have the care plan from the Evv, we have the ineration plan I make, and we have the signal plan you know.

The most when we have new abstract(Dutch), you must find them back in Negotia(Dutch) in that. So that's what happens

Also for the Evv sometimes makes it necessary. It's necessary to make a new part of the plan.

Gu 21:44

Yes, thank you so much. Okay. Yeah.

Psychologist 21:52

I don't know where we have to meet them.

it's a small room I have to see what's possible in the empty room. It's near my

New appointment

Daily activities

Interview with EVV about the MDO meeting part 1

Gu: So alright. Thank you for your time. The goal of this meeting is to see how we can help with the MDO process. So since you are an EVV and you attended MDO, may you walk us through the MDO.

EVV: Okay

Gu: So, at the beginning, how you prepare the MDO?

EVV: We have a form we have to fill in for domains. EVV fills in one of the four, me and Malone, we two and three. One is about the environment, two is about the family participation, three is mental well-being, four is physical well-being.

Gu: So, you mentioned domain one will be done an EVV, domain two and three are done by you and Malone. You are also an EVV, but you are special.

EVV: I have other roles. We have EVV.... My job is to take care of mentally...we have EVV...I don't know...

Gu: It's okay, you can speak in Dutch.

EVV: Blar, blar,blar....

Gu: If I understand it right, you not only have a few clients, you focus on the emotional well-being of other clients.

EVV: Yeah.

Gu: Okay.

EVV: But it's not only that, also to take a walk with the clients, and games. I'm responsible for the daily activities of the clients.

Gu: Okay, I see.

Gu: We wonder like last time, when you prepare for the MDO as an EVV for your client, what are the things that you need to do. You said you need to fill in a form, do you need to read anything to fill the form?

EVV: I can, ah, ah, in KICK, I can read it, also my knowledge of the client.

Gu: So, are they the daily report?

EVV: Ya.

Gu: Anything else?

Gu: So, it's like the insights about how you feel.

EVV: But it's not only for me, and I also ask my colleagues. It's my responsibility.

Gu: So your findings.

Gu: Do you discuss with all your colleagues? How many colleagues do you discuss with?

EVV: Just with the worker at the moment, when I fill in the form. Also we know where the client stands. And that is what we fill in, those domains.

Gu: During this process, do you experience anything that you think can be improved?

EVV: No I don't know.

Xin: Anything related to communication, like understanding each?

EVV: No, the report, that is the most important thing for us to get the information. It's important that every colleague report every day, the special things.

Gu: From our last study, we identified there are four issues with information flow, we would like to check with you if you have these four issues?

EVV: Okay.

Gu: So the first issue is incoherent information.

EVV: I don't understand that, maybe I read it then I understand.

Xin: Have you met anything like this when you read the report?

Gu: Do you have the same feeling as the people talking here?

EVV: Yeah, that's the most important, it's very important that it's done by everyone in the same way. Also, what's in the care plan standards.

Everyone is acting by that, because if one of the colleagues does something else, and the client responds on that, that behavior.

Gu: Now when you prepare for the MDO, when you read the reports, are they all in the same style? Ah, the same...

Xin: Because we want to find out if that's common, so we can help improve it with data.

EVV: Yeah, I un-

EVV: Yeah, I understand that, but I can't think anything that can improve it.

Xin: Okay, that's our job, hopeful we can use technology to help you with that. Now we want to know the problems. Some problems related to communication in your activities; like preparation activities, stuffs like that, yeah.

Gu: So, you find the information is coherent.

EVV: Yeah.

Xin: Can I ask what's the aim for you as an EVV to attend the meeting?

EVV: We all sit with EVV, and the psychologist, doctor, the manager, and the first contact person from the client. We sit with each other, we discuss what we write down in the form, sometimes the care plan has to be changed because something doesn't work any longer. That can be a conclusion out of that. It's also a moment for the first contact person from the client to ask questions to the doctor. So, they can ask questions about things that they are not clear about?

Gu: So, the aim of the MDO is for the family to receive some answers from the care team. Are there any other aims for the EVVS?

Xin: What's your role, maybe, in the MDO?

EVV: I discuss the four domains; I tell the family at this moment how is the client? And with the new client, you make a proper note, you set up a treatment. There is the Zorgleefplan based on goals.

Gu: You want to put them in the goals for the care plan.

EVV: Yeah, after some time, you are goanna to evaluate the goals, maybe you....

Gu: So, the MDO meeting is also for updating the goals for the care plan.

EVV: Exactly.

Xin: So, you are responsible for updating the care plan.

EVV: Yeah, I'm also responsible for that all the colleagues go in the same direction.

Xin: Like sharing information to the other participants.

EVV: I'm responsible that everyone knows what we are going to do, and they also do it. Because as I explained, if you do something else than what we said, then it's not going to work.

Gu: The client will get confused. So, you mentioned about after the MDO, you will write a report. Will all your colleagues read the report?

EVV: Yeah, by all my colleagues, they will see it on Qic. Also, the first contact person from the client, they also receive it.

Gu: Have you received any feedbacks or questions from them after they read it?

EVV: No, when we are at the MDO, we ask the first contact person how they feel about it. What has been spoken on? If there are any questions? So, there are clients already have questions about the report afterwards. It is exactly what has been spoken.

Gu: Ah, agreed upon.

EVV: Ya.

Gu: Okay.

EVV: They know new things in the report. So, they can read what have been written there.

Gu: So, will you adjust the Zorgplan after you write the report?

EVV: And every goal, it has evaluation date. And after each MDO, they are goanna put a new date when the next one is ... Every goal, every date, every goal sets on the new date.

Interview with EVV about the MDO me

Needs of PwD

Gu 0:20

Yeah, you mentioned about before the MDO m.

Do you put the form in the system?

EVV 0:34

Yeah, so I'll show you.

Gu 0:35

Yeah.

This chair is very good for your spine. I can sit. You can sit on a chair.

No, no, it's Good

EVV 1:03

Really?

Gu 1:18

I can see you still have some work to do is that emails?

EVV 1:21

Yeah, yeah.

This is where all the forms are. I open it so you can see it.

Gu 1:58

Ya

EVV 2:00

Here I can see MDO. This is the evaluation. This is the report after the MMO

Gu 2:09

Oh yeah.

And this is how it looks when we start write this form. Date when the MDO is, name and birthday.

Yeah.

EVV 2:41

And so all domains,

yes yeah. And there we write things what on that moment is important to mention on the MDO.

Clock it

How long in the toilet

And After those four domains, we have here some questions we have to answer.

Skin damage, wounds, and then we have to go with a yes or no. And this is one of the weight of the client. Yeah.

And if clients fall down, and this is for medication, and depression, and coordination and behavior. So we have to answer those questions. And every client is, we call it sets of Bay.

EVV 3:49

It is linked on how much care someone gets in here. And all our clients in the are Sitting in seven. okay, that did yeah. And that is a must sort of work, otherwise they can come over to the. And seven means for behavior, problems with behaviour.

Gu 4:14

Yeah. And, this is about how many hours direct client time? Yeah, that is something we have to do every year. Be filling in forms, how long we are busy with someone for the toilet, taking care of in the morning to wash and that sort of things

Gu 4:44

How do you measure at the time that you take?

EVV 4:53

Yeah we we cloak it and then we have for every client we have to fill a form for it Okay, and then there's Amenda or Mariska, they make a report of all the things we write down. And then there's, yeah. It's called More care.

Gu 5:23

More care.

Gu 5:23
More care.
EVV 5:24

Fill in time
takes time

Medication
treatment

Yeah. that is not a good translation. That's not what I mean.
xin guo 5:32

Now we have to do that so we can, we can get money from zorg council.

Gu 5:39
Okay, so you show...
EVV 5:41

That, that that that is about will help you cry.

Oh, yeah. This is very important to recreate, ah register it.

Gu 5:55

Yeah. If I get this right, you mean by knowing how long you work for, the team work on the client, we can say we would need more funding from the office to support our work.

EVV 6:11

Yeah. And they, they decide if we get the funding. Okay. And they decided it on our forms. So that's why it's important to be, yeah, fill it good in. When you clock the time, how do you feel, do you feel it's a difficult task, or time consuming or is okay.

Well, it takes time very much of us. We can sit yeah, on the end of the shift we fill in the form, but it's it takes very long time to fill it in. And it's much work.

Gu 7:00

Okay, we can continue.

EVV 7:02

And this is for the medication of that is still okay. And this is the question for the family if they're satisfied with the care we gave to the clients. This is a very important question. So we know how they feel and if they want something else or are they missing something?

EVV 7:28

And here, we do them after the MDO, we make a report out of it and it looks exactly like this. And here we do the, write... write

Gu 7:46

The conclusion

EVV 7:47

No, Abstract

Gu 7:50

Agreement.

EVV 8:03

Something we have to do, we said, we write it here.

Gu 8:07

A to do list.

EVV 8:08

Yes, exactly.

Gu 8:11

Yeah, I got it.

Now let's focus on an MDO meeting, during the meeting.

So I prepared some questions in dutch

But is, again, fun. And the two things that you do one by one to us, you know, (dutch)

EVV 8:34

No, we don't have an agenda, this is, this is the agenda,

Gu 8:39

You go through it from top to bottom.

Okay, yeah, and Valcke info Mati labored, you may start out in MDO.

What information to usually deliver to an MDO?

xin guo 8:57

That's exactly the four domains.

Gu 8:59

Yeah, so there's no other plans like signalerings plan or other.

EVV 9:05

No, Before the MDO, we also fill in other forms

EVV 9:14

And we do every time and we look if there is a change in it, in the results of those forms and we do that they fade does that with the tea Hello. Okay, they fill in that form together and the tea Hello hoodie. She's is responsible for the results to write down it to see if there is something different in results. But if there is a difference, then we have to do something to report it on the MDO, yeah. And then then we have to do yeah.

EVV 10:06

Yeah, something we have to change in the care plan, because there's something happened and you want to get it there where it was and then you have to do something and that that's the slaughter.

Gu 10:23

So, what are the components of the care plan? They are the work-plan and the Dolen and activity plan.

EVV 10:36

Only this and the other forms were but I just mentioned they are not going to be presented in the meeting.

Gu 11:01

So, do you have more discussions with some of the participants?

EVV 11:06

No, it's not a question of discussions. We don't have discussions. It is more to we also have a feeling of the film defending

Gu 11:21

Your finding.

EVV 11:23

Yes. We tell. Yeah. Yeah. And we tell that to the first contact person, to the family and it's not a question of discussion with other disciplines, that is not the issue.

Gu 11:38

Reporting to the first contact.

EVV 11:39

Yes, first, and answer questions that the family have.

Gu 11:44

yeah okay.

And what note here yet in MDO, like maybe you can write down something

EVV 11:57

Yeah.

This and and on the abstract of the max

Gu 12:03

The questions

EVV 12:04

yes.

Okay. Yeah. From the family and to you, what do you use to do the recording? Do you use computer or?

No, pen and paper and then we when we are back at here, then we type it in the report..

Gu 12:29

And regarding delivering the information and the communication with the family and other participants, do you think anything can be done better in the meeting?

EVV 12:47

As I understand, they are in the management, they are looking for other way to do it.

And I think that is good to do that because I think it should be more getting from the family that the meeting may have to burn (Dutch).

EVV 13:18

We tell them stuff but yeah yeah

Gu 13:26

We have the translator

Fill in forms between MDO to discuss with each other, change before the meeting

So conversation is now based on care but should be done by the family.

EVV 14:06

No, that's not good. No.

xin guo 14:09

The conversation is now from us to the family. But it should be the other way around. The conversation should be coming from the family, their expectations from us and the questions they have and this may hurry finance for me and

Gu 14:32

The family will take the lead

EVV 14:35

Exactly.

xin guo 14:45

Normally, do the family all agree with your findings?

Well, focus from family.

Gu 14:59

So yeah, we are family-centered.

So we.....

EVV 15:09

The family talks nice nice break the cleanse (Dutch).

and after that open able to go home yeah (Dutch).

I don't know how to use it. No, because what I write here in Dutch it doesn't translate good in English so you get a very wrong...

Gu 15:34

So you want the family to have more power, more...

EVV 15:38

Yeah.

Gu 15:40

And do the family always agree with the MDO meeting?

EVV 15:46

Some family, they find it difficult because sometimes they are sitting alone and we are with 4,5,6 people and so they have sometimes the

feelings of wow. Much people are in front of me and they say things to me and yeah,

And, I guess many times the reaction from family that they say from it's better to one and one. So you get more relaxed sitting. Right?

Gu 16:23

Yeah. Yeah, I can see the reason why the family get this wow.

Yeah. Yeah. So, is it possible that there's there's agreement that is not reached at the end of the MDO?

Like, the family could say, I don't agree with what's being reported?

EVV 16:51

Oh, yes, sure. Yeah.

EVV 16:52

Yeah. And they can ask questions, then it's this fine this okay.

Sometimes they do, and sometimes they don't.

Gu 17:03

Okay, I see. So at the very end of MDO, if they still have questions they will ask after the MDO?

EVV 17:12

Sometimes, yeah, but it's always time, emmm, conversation is for half an hour. So we have that much time to have that conversation.

Gu 17:28

Okay. Yeah. So there's lots of information in a short time.

xin guo 17:33

Yes, exactly.

Gu 17:36

Are we nearly ready or? Yes, yes. We are nearly ready for the interview. Yeah, yeah. So do you have a question? You can go first. Today even older? (Dutch)

EVV 17:49

She needs my help. So that's why I asked if we need a long time.

Gu 17:53

Yeah, sure. How long will it take? Yeah.

Oh, so that's a long time. Yeah, we'll wrap up will do very quickly to

So in here, you mentioned about some problems that you experience. And maybe there are not like problems but like things that you think can be made better about the inflammation. So there are like, four types of inflammation problems that we talked to before. And after our discussion, are there any problems in here that you can recognize so hard? Can't you invent days in format the problem for Titans and now the MDO (Dutch)

As they are written here, you mean? Yeah, okay. I will read it.

EVV 18:59

I don't think this information is information about the MDO. This is not related to each other. Okay? I don't recognize this from

Gu 19:55

from from what you are doing in the MDO.

EVV 19:57

no no, these are small

As I think, small problems here on the Daily Report.

EVV 20:07

Yeah.

Updating and for me, it's not related to the MDO.

Gu 20:15

Okay. So it has an indirect, not direct effect.

EVV 20:20

Yeah. Those are small things, I think.

Gu 20:23

Yeah. And we also summarized how the data could help in general.

So if after reading this you have some questions and disagreements, please let us know. So we know how to adapt it better to work. So I'll propel commandeering dinky, a dad to save and she can help for Titans and your work. (Dutch)

EVV 20:27

The(Dutch)

Gu 21:04

In general, in general

EVV 21:08

I don't understand the question, sorry.

xin guo 21:14

The whole process of the like, when you prepare for the MDO and during MDO and after MDO you write the report, any of these three parts Did you find yeah this might might help with your process.

Gu 21:39

I can make it brighter, is it better?

EVV 21:39

Right here

Yeah, this is a better. Thank you.

Yeah, yeah.

Gu 22:26

So you think all four parts will help? Yeah.

Okay. Yeah. Perfect. Thank you so much.

Weekly meeting 上主要写behavior

Interview with Evv2 about weekly meeting

Gu 0:03

Would you mind if we take an audio recording?

Evv2 0:06

No.

Gu 0:07

Okay, thank you.

Yesterday we have observed the weekly meeting, and we would like to know the process. So, before the meeting, what do you prepare?

Evv 2 0:32

The information of all colleagues. The program in a computer.

Gu 0:45

okay.

Evv2 0:46

In a form.

Gu 0:47

Okay. So, you will write the form. Yeah, yeah. And what do you do before writing the form, you read something

Evv2 1:02

The daily report .

Yes.

xin guo 1:13

What do you really write in the form?

Evv2 1:17

Only questions, because behavior. Yeah. Yeah. All the questions?

So, during this process when you prepare for report for your last weekly meeting, have you experienced any things that you think can be done better?

That all colleagues, prepare for the meeting,

Gu 1:58

Right. Instead of only you. It should be a group

Yeah, one is leading the process. we can also speak in Dutch yeah I will try my best okay

Xin guo 2:13

One of the care givers is leading, the other care givers are following.

Evv2 2:23

family well by Shiva and then the vinegar the bite my meat noodles (Dutch).

Gu 2:37

Okay, so you think the other care givers should also write some notes now

Evv2 2:45

Yeah, when they have something and they have nothing they don't have to write.

Gu 2:51

Yeah. So last time in the focus group we identified there are some issues with the information flow. In the meeting, and we wonder if you can recognize any of the problems before the weekly meeting when you prepare for it. Have you experienced any incoherent information?

Evv2 3:28

That Nick lot yeah. (Dutch)

Gu 3:31

No, no. So, it's maybe not not incorrect but caregiver A says something...

Evv2 3:46

Because not everyone feels it's the same. Yeah.

Gu 3:53

Yeah. So, you have experienced Yeah, is it

Evv 2 3:59

Often 10 times of two times.

Yeah, that's what I mean

Gu 4:11

With incomplete information, do you find sometimes you need more information when you prepare for your weekly meeting.

Evv2 4:23
No, not yet. Only twice lead the meeting that I have not so many experiences.
Gu 4:38
It's also good to know
Evv2 4:42
I have the experience from our nursing home
Gu 4:49
Have you experienced information overload, which is you have lots of reports to read? You find you do not have time for it.
Evv2 5:01
No, we have time
Gu 5:05
To prepare the report.
Do you have a question?
Okay.
So, now we move on to attending the weekly meeting. For example yesterday, is there a schedule for the weekly meeting.
Evv2 5:30
For the behind overlap (Dutch) Yeah. Okay.
Gu 5:37
What do you do first?
Evv2 5:39
I read what is written in the form.
xin guo 5:45
From the others or ?
Evv2 5:46
From the others, Yeah.
And I read the report, and my experience in a week with the clients.
Okay. And then I write things in the form.
Gu 6:06
So, the doctor psychologies and the case manager, what are their contributions?

What is their input? They have their input in the meeting.
Yeah. So, may you give us some examples
Evv2 6:32
We tell our experience and they act
Gu 6:42
They will give you some advice or something?
Evv2 6:51
That's familiar Bishop Moscow open. (Dutch)
Gu 6:56
Oh yeah. Advice
Evv2 6:59
We didn't do that because he is moving movie and not a lot but he's moving.
And ask. Yeah. Yeah, you don't will fall.
But if it's possible, you must go open
Gu 7:26
Your one example which is really useful for us, and during meeting from 2 to 3pm yesterday. What are the things that you think could be done better?
We want to need to feel good like this break in (Dutch).
Just a few clients at a time.
Evv2 8:01
Yeah because almost at not possible at the smell(Dutch)
Gu 8:10
okay
and how do you select the client?
Evv2 8:18
yeah the spray cover(Dutch)
In the beginning from the meeting
Gu 8:25
So, when you write the form, you already identified.
Evv2 8:30
No, then we take all the questions with us.

And in the beginning of the overlap meeting we choose which first.

Gu 8:44

Okay.

Do you choose it by yourself or you choose together.

Ev2 8:48

Together.

Gu 8:49

With caregivers? together with your colleague?

Ev2 8:53

And arts and case manager and she Hello.(dutch)

Gu 9:00

Okay.

Ev2 9:00

We all together

Gu 9:01

Okay. So for example yesterday Who did you choose in the end?

Unknown Speaker 9:08

We choose the most important thing we all think important.

Gu 9:16

Yes.

Ev2 9:22

And the case manager has to know something
that day this that that was fast

Gu 9:35

Okay, I see. So, during the weekly meeting the behind the overlap.

Do you experience any issues with the information flow? We also
have the incoherent information.

Do you experience it before?

Ev2 9:58

Yeah, I asked, but I don't see everyone before the meeting.

Gu 10:07

So

xin guo 10:09

During your discussion is the communication problem like that?

Ev2 10:16

No, I think not.

Gu 10:19

How about incomplete information? You would like some information
but it's not there.

Ev2 10:26

And then the week after we discuss,

Gu 10:31

okay.

xin guo 10:35

What will you do in the week before the next discussion?

Ev2 10:42

The next discussion?

xin guo 10:44

You said if the information is incomplete, you will discuss next time.

So, in this period what?

Ev2 10:53

We asked colleagues, read the report

Skua, skua an overnigher (Dutch), and a new observation

Gu 11:16

And do you report it on the daily report, or you have other places to
write the new observation?

Ev2 11:28

Formula from on where (Dutch)

We have a form of the handle overlay (Dutch)

I write.

Clear, And I write a report for the day.

Gu 11:48

So, during the meeting Do you have any experience of information
overload?

Evv2 11:57

Yeah, I missed this Very good. And right. Yesterday there was many information

that I chose the most important things,

Gu 12:17

okay.

Evv2 12:18

So, I don't write everything they said.

Gu 12:23

So, after your weekly meeting, we saw you sitting here, and it may you briefly describe what happened. After your meeting, what did you do?

Evv2 12:39

I write.

I am taking a month (Dutch). Yeah. And

Gu 12:47

To write some notes on your notebook and then you copy that to the system.

Evv2 12:53

Yeah. Okay. Yes. Do you create a new report? Like the weekly meeting report? And will this report be seen by all the caregivers, doctor, psychologist they can see the form.

Gu 13:13

And do they ask you questions or keep your feedback after they read the report?

Evv2 13:21

If it's us notice (Dutch).

xin guo 13:27

how do they use the report?

Evv2 13:32

They can read.

Gu 13:34

And how can this report act as an input to other activities?

Evv2 13:42

Every colleague has to read the form.

xin guo 13:47

So, if I understand the right so you share the report, and if they found some information useful they can use it.

Evv2 14:03

They're there yet. They have to read and behaviour.

Gu 14:11

Okay. So, will you briefly describe to us what are the contents on the report by what you just said? There might be some instructions or rules written on the report they have to follow.

Evv2 14:29

Yeah.

Gu 14:29

Okay. And move

Evv2 14:33

a bets open men.(Dutch) The client is quiet and death RC August is (Dutch)

Gu 14:43

Okay.

Yeah. And would this weekly meeting report help with the daily report of the caregivers?

Evv2 14:57

at Ohio State or I (Dutch).

Gu 15:37

Support.

So, you will receive support from someone.

Evv2 15:43

No.

top box and a form of overlay. (Dutch)

Gu 15:52

So, they support each other. Okay. And with the care plan. The Doolan and the activity are they related with weekly meeting report?

May you describe how are they related? You can give us some examples.

Evv2 16:16

It tells him what you must do and why is in the form of weekly meeting.

Gu 16:26

And the ghosts in the the Dolan in the care plan. they created based on the weekly meeting report.

Evv2 16:42

me cell is it on my cell (Dutch)

It is care plan first. Then weekly meeting Hello flag, Zika and also the new blame inside, and that guy speaking behind Lovely, and soft, a prominent boss. (Dutch)

Okay, if it's important to, to change,

Gu 17:10

okay, if I understand you correctly, you will first have the care plan, and then you will have the weekly meeting. And if there's something changed, you will first discuss it at the weekly meeting.

Evv2 17:26

And try how it's going for a few days and then it's right, and then the care plan change.

xin guo 17:38

Which part will mainly be changed? the goals, the work plan or the day structure?

Evv2 17:44

Both.

Unknown Speaker 17:49

that's from an official spokesperson Chairman the motto within South Bronx blog Mediterranean American motto here (Dutch).

Gu 18:00

I see. So, you put this information both in the work plan and the care plan.

Evv2 18:05

man it's going over a dead. man it is. Could .have been an explosion of senior lyrics. (Dutch)

Gu 18:20

If it is about behavior that we write it in the signal plan or the interaction plan or the care plan. and if it's everything else, you will write it in the work plan?

Evv2 18:38

humbling, a bit of a host of eating of (Dutch)

Behaving is in

signal plan.

Gu 19:00

After you finished, you're behind overlap.(Dutch)

Do you experience any information issues?

So, we'll go back to these four categories. So, after the meeting when you write it in the system.

Do you find sometimes you will get incoherent information?

Evv2 19:32

No, I didn't

Gu 19:37

Do you miss some information?

Evv2 19:43

Yesterday, I don't miss anything.

Gu 19:47

And, with the information overload, do you find it too much to write down?

Evv2 19:55

No, it takes time, but I have to write it.

Yeah, it's important use.

Gu 20:05

OK, so now I'd like you to think about your emotion through the journey from preparation to doing the meeting and after, how do you feel?

Evv2 20:30
Because you're relaxed.
Yeah, I know what I have to do.
I was a little busy, busy.
Unknown Speaker 20:48
Because all talking and the information, I must write my one, listen
and join.
xin guo 20:57
So, in the world in the meeting yesterday did you lead the meeting?
Evv2 21:04
Yeah, and not
Alpha not often too because he she experience.
And the arts
Gu 21:30
The doctor also leads the meeting.
Evv2 21:31
A little bit. Yeah. Yeah. Because she has to know something and she
wow.
I have to write, hahaha.
Gu 21:41
Yeah, I can imagine
Evv2 21:45
a LITTLE BOMBER, little bit tensed.
I have to listen, very carefully and right.
So I was very busy
Gu 22:17
Okay, you have to pay attention
xin guo 22:21
and in the meeting How did you start like who else speak first like
let's let's do this first then.
Evv2 22:29
Yeah, well, I read a form you know with all clients

And then we will say what's important and then we choose together
xin guo 22:46
Then decide what topic you want to go on.
Evv2 22:50
Yeah. When I think I have to know something at once.
I say that listen and we choose.
Gu 23:02
after the meeting, what? Like how, how do you feel?
Evv2 23:12
I was busy.
I write and I was very concentrated.
So I write the most important things. So colleagues to hope that they
know everything they must know.
Gu 23:35
Your advice of being taken by your colleagues, how do you feel?
So, if your colleagues follow the instructions, they wrote the handling
Evv2 23:57
Yeah, yeah, I'm fine.
xin guo 24:05
In the meeting to know the doctors and the psychologist and the
other caregivers
Do you all take care of the same group of clients?
Yeah. Okay, but you are one of the clients' EVV.
Evv2 24:33
One client, only one.
xin guo 24:37
But as the Evv of that client in the meeting, what topic was important
for you?
Evv2 24:47
I want to answer all the questions, but other things are more impor-
tant. So it's for the following again(dutch), next time misspeak and in
manga. (Dutch)

Gu 25:07

So as an Evv, when you update the care plan for your client, What information in the meeting is important for you?

Evv2 25:22

As I shower, she is my client, she goes early to the bed.(Dutch) And we want to wash and change before she is goes to bed. Yeah, otherwise I we have to wake her, we want to know if it's okay. And we go for it, but it was not yet

Yet, we didn't have an answer to that question but we forget again(Dutch).

Gu 26:02

So next next time Yeah.

xin guo 26:06

So for EVV like, well, that problem you in the meeting you want to receive some answers. Okay. And help you to review the plan?

Evv2 26:20

Yeah, yeah.

EVV 26:26

I can not change by myself. We have all have a vision have to

Gu 26:35

have a vision to solve it with an agreement.

Evv2 26:41

Yes.

Gu 26:44

So, last time we also look into data, the location data we collected, how it can be helpful in the care plan making process. For example, the weekly meeting, so we identified the four functions or roles, the data can be helpful. The first is data for reference. So if you will make information more objective therefore build this money or have loved 500 meter.(Dutch) This is a badger done when the year he'll feel Hel-

lo.(Dutch) Which state do you prefer?

Evv2 27:40

Because we know exactly what's real the load? Yeah, let's move on.

Okay (Dutch).

Gu 27:56

It's time for meeting

We will speed up in one minute. So with data for detection, It's like if Morales starts to walking less and sit more you will get a notification saying her behavior is changed. Do you find it's gonna be helpful for your weekly meeting.

Evv2 28:25

sometimes.

Gu 28:28

Sometimes

Evv2 28:30

She can sit because he's relax or she can sit by because she is tired You do not know the reason behind it and you would like to know the reason.

Yes, yeah.

Gu 28:45

And the data for evaluation is to look at the nonverbal behavior and Verbal Behavior between the care givers. to see which works better Do you think it's gonna be helpful?

Evv2 29:03

Maybe, and I don't know

xin guo 29:10

what do you think it will help you to reach the agreement in the meeting? This any of this? You want to know some advice? Okay. Yeah, this

Evv2 29:35

Sometimes. But, yeah, the reason why is very important.

Gu 29:45

So, the last one data for filtering is to only show you the relevant information.

In the kitchen, you will only receive information about the diet

Do you think it will be helpful?

Evv2 30:08

Yeah.

Gu 30:10

Okay.

What do you think it's helpful?

Evv2 30:15

You have backup.

Gu 30:18

Backup.

Evv2 30:20

Yeah, you can see what's happening. Yeah. Okay.

Gu 30:27

So, these are all questions. Thank you so much for your time. Have a good day. You too.

Transcribed by <https://otter.ai>

Write a daily report part 2

Gu 0:00

You can speak out loud what you are thinking.

Evv 3 0:03

Okay

I'm going to report, goals.

xin guo 0:20

Is this goal long-term goal or short-term goal?

Is this goal last six months or less?

Evv 3 0:38

It's always but it's (dutch)

yeah

But this this goal is new. You do start nearby okay (Dutch).

I go(Dutch)

I help her with a pajama. I was in a room and I saw the poop in the sink.

I'm writing I don't talk about it with us.

Gu 2:16

Okay.

Evv 3 2:20

That's it. I'm always writing very small my

Gu 2:26

Yes. So, after you finish the report, who will read them?

Evv 3 2:34

My college, sometimes I think the doctor.

xin guo 2:41

It will automatically to deliver to Doctor.

Evv 3 2:45

No, no, no, no.

But she can read the report.

Sometimes I think the psychologist.

The art and the writing is the have a lighting (Dutch).

The doctor and the psychologist. They read the report if it's an enlightening is a trigger yes yeah

Yeah you understand?

Gu 4:29

Yeah I understand. Yeah. Yeah.

Yeah. So, I would like to know like, after the doctor, colleague or psychologist they read the report, do they ask you questions?

Evv 3 4:54

Sometimes.

Gu 4:59

Do they give feedback to you?

Evv 3 5:03

No, we discuss the report, is the case. Next of last week she has Lassen staking. Yes. kept at it and then bronica come to us that we talked about it but not not nice to see what's going on with the client. (Dutch)

Gu 5:54

We are interested to know what will happen after you write the report.

Yeah. So, then therefore the care plan, will they look at the report for MDO? (Dutch)

Evv 3 6:20

Yeah, for weekly meeting, for MDO.

You know where (Dutch)?

Gu 6:43

Throughout this process, so I will recap with you. So, you will observe, talk with your colleague before writing the daily report.

Do you experience any difficulties at this stage?

How do you feel?

Evv 3 7:10

For me this is okay.

Gu 7:16

In the next stage when you start to write the daily report, are there any problems that you have experienced before?

Evv 3 7:33

No, no sometimes I that is I'm writing.

Yes, it's
I'm going to show you, MDO, yes, yes.
And sometimes I take it off I make this and I want to. Yeah. computer
center each gone. All my work for nothing (Dutch).
That's right.
Yes, yeah. And are there times you feel it's a problem with the infor-
mation that you have. So, in our previous work, we identify there are
four problems with the information.
Xin guo 9:27
When you make the plan.
Gu 9:33
Incoherent information,
Evv 3 9:43
yes, yeah, Yes, that's true.
It's different levels of knowledge for different people.
Yes. And I think that's the problem.
Gu 10:08
And with incomplete information.
Evv 3 10:13
Yes, and I think for example, level three.
They are writing the report, but it's not objective, it's subjective.
and that's....(Dutch) you know?
Gu 10:38
yeah, yeah, I know. They report on how they feel,
Evv 3 10:45
with their own emotions, not what they see.
It's not always objective.
Gu 10:54
With information overload. Have you experienced it?
Evv 3 11:15
No, no.
Gu 11:20
Missing informaiton, somehting was there, but you forgot?
Evv 3 11:27

Yes.
And sometimes they make an appointment for weekly meeting,
sometimes it's difficult to find it back.
Gu 11:48
And what makes it difficult to find it back?
Evv 3 11:54
Sometimes I'm a couple of days free.
Then I must write back a long time from all the clients and I can't find
it.
It's too much
Gu 12:14
When you are writing the report, how do you feel?
Well, that's okay.
xin guo 12:23
Do you encounter any of this problem like you can't remember some-
thing?
Evv 3 12:35
No, no the family can read the report.
It's okay for me. For me, it's not, it's okay.
Gu 12:48
So, we also identified what the data can do.
So, for example, it can help with reference
It can give a number to make report objective.
Evv 3 13:10
Measurable, that's important I think that you can compare the days.
Is it measurable?
Yeah.
You can compare.
And that's it. That is objective.
Gu 14:31
Yeah. So, this is one-way data can help.
Evv 3 14:34
Yes.

Gu 14:35

There is another way that data can help detect if there is a change in the behavior of the process.

Evv 3 14:48

She goes leaving on Monday.

She goes she go to another home nearby her family.

Monday, Monday, Monday, yes.

We heard at five o'clock.

Gu 15:11

Today, okay, I got it.

She stays in her room.

Yes. Yeah.

Maybe she stayed much longer in her room, then you receive a notification she has been staying too long.

Evv 3 15:46

Yes.

Gu 15:49

Would it help with your report?

Evv 3 15:53

I don't know. I must try. I don't know

Gu 15:59

Data for evaluation, it's for the interactions with two people, does it really matter.

Evv 3 16:18

The interaction with two clients or clients?

Gu 16:23

Both

Evv 3 16:24

Okay. Okay. That's good.

Gu 16:32

The data for filtering is to show you the right data at the moment if you are in kitchen, it will show you all the information related to food

Evv 3 16:52

yes.

Gu 17:19

After you write your daily report. they are being reviewed. So, are there any difficulties that you have experienced with reviewing other people's report?

Evv 3 17:48

No

Xin guo 17:51

Like communication or understanding it's difficult to understand it any worse right here?

Evv 3 17:59

When I read their report, I have no problems.

Gu 18:10

And what other questions you received through her?

Evv 3 18:40

Sometimes I think the doctor and some colleagues, they write the daily report.

I think they must know that family can read this.

Yeah, you need to be careful with your word.

Gu 19:19

You mentioned the doctor, care giver, the psychologist, they will read the report.

Do they have any questions?

Evv 3 19:30

No.

Gu 19:33

So, you mentioned about after you write the report, people will look at it and ask questions about it. Did I get it right?

Evv 3 19:46

They don't ask me anything.

xin guo 19:50

What will they do with with report?

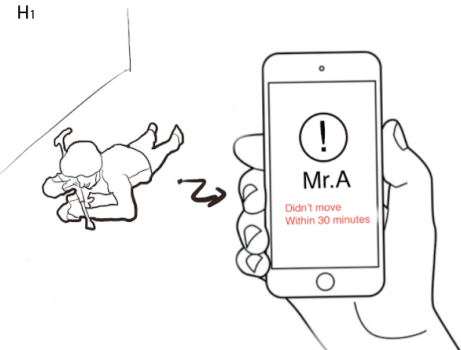
Evv 3

19:54

Appendix 3- Hypothesis test

"Client staying still" can indicate caregivers the client falls

H₁

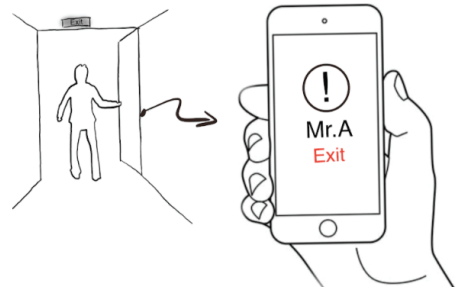


1 2 3 4 5 6 7

Disagree Agree

Location information can indicate caregivers the client is walking to "unsafe" area

H₂

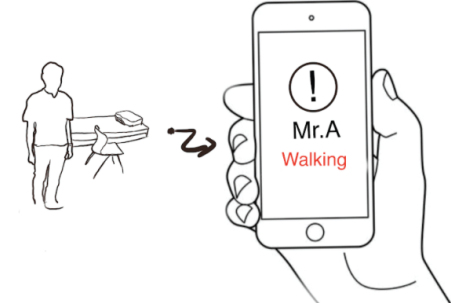


1 2 3 4 5 6 7

Disagree Agree

"Client's walking distance" can indicate the client wakes up.

H₃

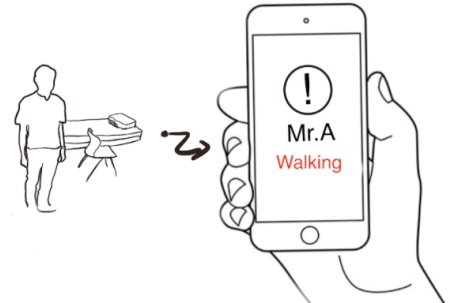


1 2 3 4 5 6 7

Disagree Agree

"Client's walking speed" can indicate the client wakes up.

H₄

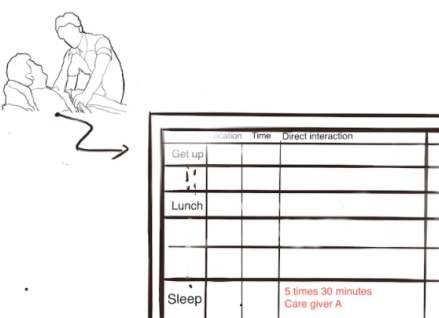


1 2 3 4 5 6 7

Disagree Agree

Overview of direct interaction at night can indicate sleep quality of the client

H₅




Location	Time	Direct interaction
Get up		
Lunch		
Sleep		5 times 30 minutes Care giver A

1 2 3 4 5 6 7

Disagree Agree

Overview of walking distance can indicate sleep quality of the client

H₆



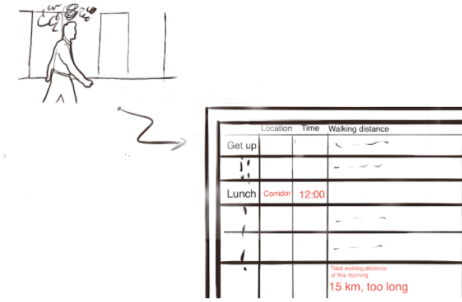
Location	Time	Walking distance
Get up		
Lunch	Corridor 12:00	
Sleep		20m, long

1 2 3 4 5 6 7

Disagree Agree

Total walking distance indicates if the client needs rest.

H₇



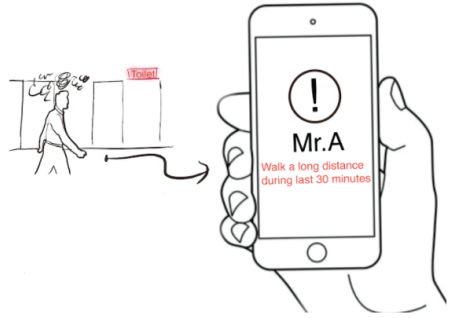
Location	Time	Walking distance
Get up		
Lunch	Corridor 12:00	
Sleep		Total walking distance of the walking 15 km, too long

1 2 3 4 5 6 7

Disagree Agree

"Client's walking a long-distance" can indicate caregivers the client need to go to the toilet.

H₈

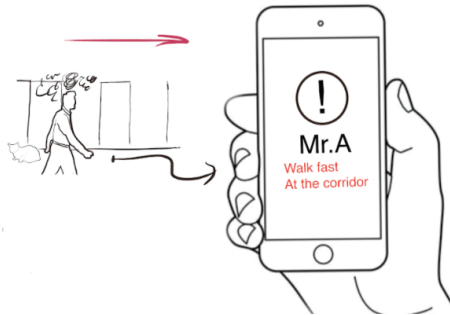


1 2 3 4 5 6 7

Disagree Agree

"Client's walking speed high" and "location information" can indicate the client gets stressful due to something he meets.

H22

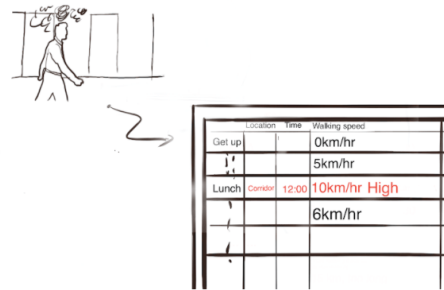


1 2 3 4 5 6 7

Disagree Agree

An overview of walking speed indicates the client's level of activeness.

H10

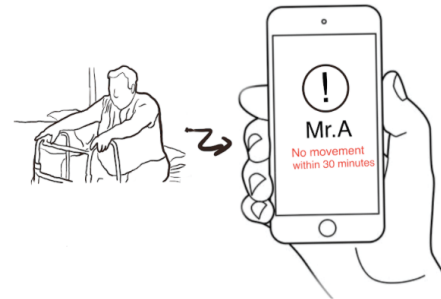


1 2 3 4 5 6 7

Disagree Agree

"Client staying still" can indicate caregivers the client needs more movement/activeness

H11



1 2 3 4 5 6 7

Disagree Agree

An overview of the walking distance can indicate the level of the client's activeness

H12



1 2 3 4 5 6 7

Disagree Agree

An overview of the client's walking distance can indicate if the client needs more treatment consultant. (For example, the client may be serious unrest.)

H14

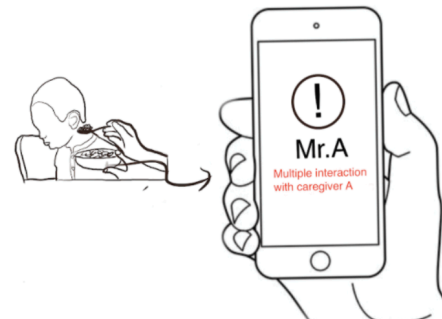


1 2 3 4 5 6 7

Disagree Agree

"Direct interaction frequency at mealtime" can indicate caregivers the client is not willing to do something". (For example, the caregivers tries to sever

H14

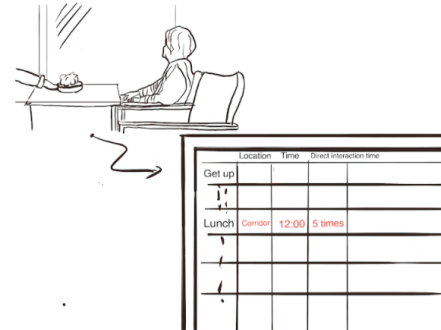


1 2 3 4 5 6 7

Disagree Agree

Overview of direct interaction can indicate the willingness of doing something. For example, the client is not willing to have a meal.

H15



1 2 3 4 5 6 7

Disagree Agree

Part 2

If caregivers interact with the client at the appropriate time, the chance of the client gets stressful will be reduced. (For example, when the client is wakened up by the caregiver too early, the client will get agitated, which makes the caregiver stressful as well.)

H16



1 2 3 4 5 6 7

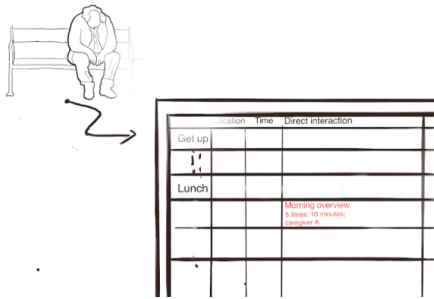
Disagree Agree

Can you give a short explanation or any comments about your selection?

Your answer

Overview of direct interaction can indicate the level of socialization of the client.

H18

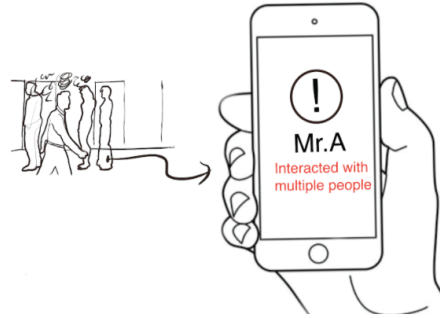


1 2 3 4 5 6 7

Disagree Agree

"Direct interaction" can indicate caregivers the client needs accompany

H19

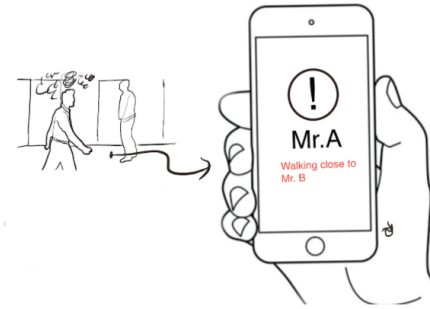


1 2 3 4 5 6 7

Disagree Agree

"Direct interaction" can alert caregivers the client is close to infectious personal/person. For example, the client is close to people who might make them stressful.

H20

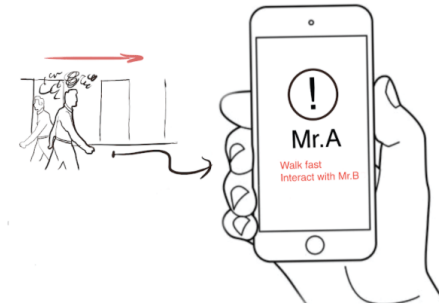


1 2 3 4 5 6 7

Disagree Agree

"Client's walking speed high" and "Direct interaction" can indicate with whom the client interacted made the client stressful

H21

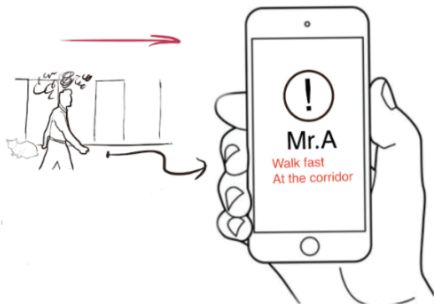


1 2 3 4 5 6 7

Disagree Agree

"Client's walking speed high" and "location information" can indicate the client gets stressful due to something he meets.

H22



1 2 3 4 5 6 7

Disagree Agree

Overview of the duration of stay can indicate the client's likeness of the living conditions

H23



1 2 3 4 5 6 7

Disagree Agree

Overview of walking distance can indicate mood change of the client

H24

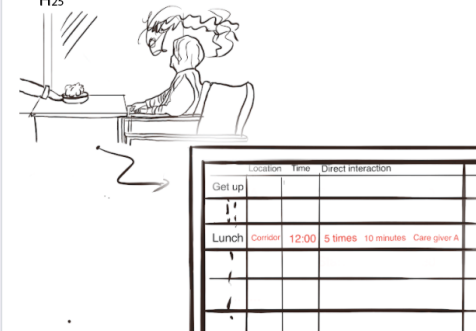


1 2 3 4 5 6 7

Disagree Agree

Overview of direct interaction can indicate the trigger of client mood change.

H25



1 2 3 4 5 6 7

Disagree Agree

An overview of walking speed indicates that the client is stressful.

H26



Location	Time	Walking speed
Get up		0km/hr
		5km/hr
Lunch	Corridor 12:00	10km/hr High
		6km/hr

1 2 3 4 5 6 7

Disagree Agree

"Movement trajectory" can indicate caregivers the client is stressful.

H27

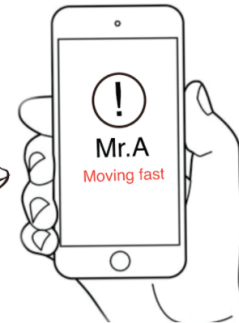


1 2 3 4 5 6 7

Disagree Agree

"Client walking fast" can indicate caregivers the client is stressful.

H28

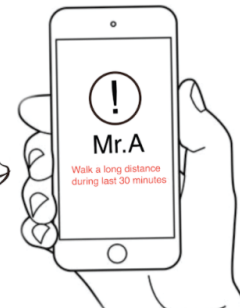


1 2 3 4 5 6 7

Disagree Agree [Click to go back, hold to see histo](#)

"Client walking a long-distance" can indicate caregivers the client is stressful.

H29

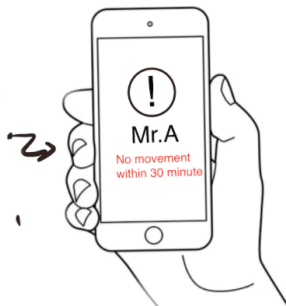


1 2 3 4 5 6 7

Disagree Agree

"Client staying still" can indicate caregivers the client is depressed.

H30



1 2 3 4 5 6 7

Disagree Agree

Real-time location data can make care planning more adaptative.

H31

1 2 3 4 5 6 7

Disagree Agree

Real-time location data can let the caregivers be more aware of what happens to the client.

H32

1 2 3 4 5 6 7

Disagree Agree

Real-time location data can improve the efficiency of care planning.

H33

1 2 3 4 5 6 7

Disagree Agree

If caregivers know when each client is usually doing something and where they do that will improve caregivers' working efficiency. (See the second question below as an example)

H34

1 2 3 4 5 6 7

Disagree Agree

Overview of direct interaction can indicate the efficiency of the caregivers' work

H35



Location	Time	Direct interaction time
Get up		
Lunch	Corridor 12:00	5 times

1 2 3 4 5 6 7

Disagree Agree

If caregivers interact with the client at the appropriate time, the chance of the caregiver gets stressful will be reduced. (For example, the caregiver will get stressful after several times trying to feed the client medicine, the client gets agitated because he is not in good mood. Then the caregiver will be stressful due to the clients' emotional behavior.)

H36



1 2 3 4 5 6 7

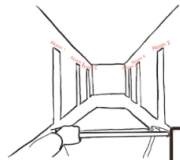
Disagree Agree

Can you give a short explanation or any comments about your selection?

Your answer _____

Overview of getting up time can help caregivers plan the order of serving different clients.

H37



Mr.A Start moving at 8:00
 Mr.B Start moving at 8:10
 Mr.C Start moving at 8:30

1 2 3 4 5 6 7

Disagree Agree

Overview of movement trajectory can help caregivers plan working schedule. For example, planning where to serve meals

H38



Location	Time
Get up	
Lunch	Comor 12:00

1 2 3 4 5 6 7

Disagree Agree

Overview of direct interaction can indicate the how the caregiver approaches the client is not appropriate. For example, the way the caregiver serving a meal is not appropriate.

H39



Location	Time	Direct interaction time
Get up		
Lunch	Comor 12:00	5 times

1 2 3 4 5 6 7

Disagree Agree

An overview of the duration of stay can indicate the clients' favorite spot so that the caregiver can plan activities according to it.

H40



Location	Time	Walking distance
Get up	Room 1	30 mins
Lunch	Comor	20 mins
		8 hrs

1 2 3 4 5 6 7

Disagree Agree

Historical location data can help caregivers to write a daily report/and daily updating the care plan more objectively.

H41



1 2 3 4 5 6 7

Disagree Agree

Historical location data can help caregivers to share information with their colleagues about the clients' condition. (For example, hand-over meeting)

H42



1 2 3 4 5 6 7

Disagree Agree

Historical location data can help other /professionals understand what happened to the client. (For example, consulting other professionals and caregivers at the weekly meeting and MDO)

H43



1 2 3 4 5 6 7

Disagree Agree

Can you give a short explanation or any comments about your selection?

Your answer

Can you give a short explanation or any comments about your selection?

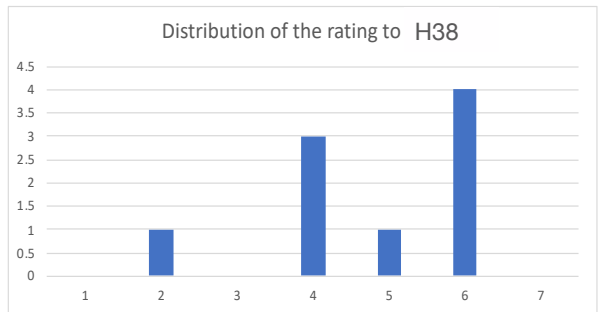
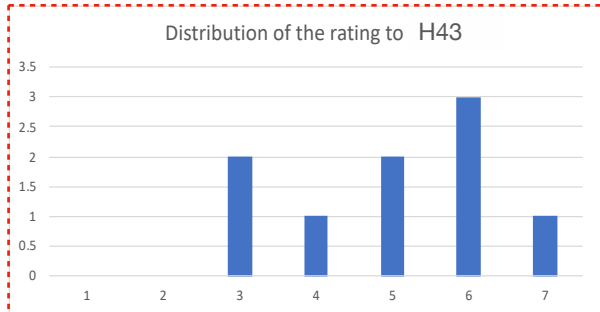
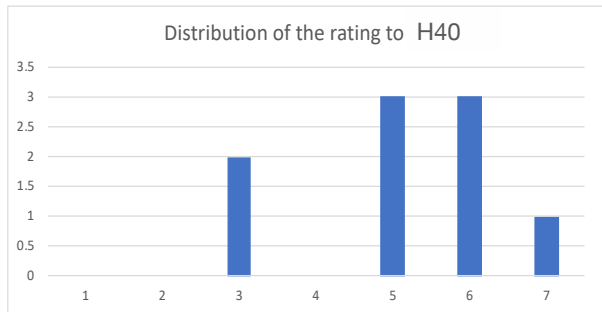
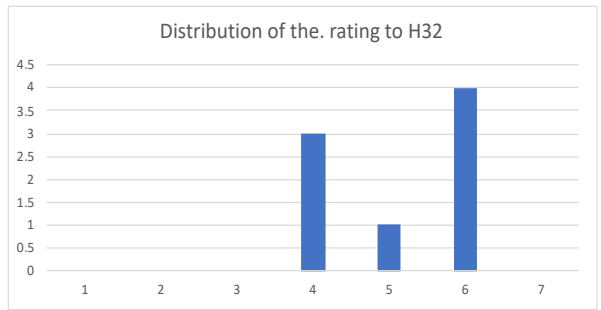
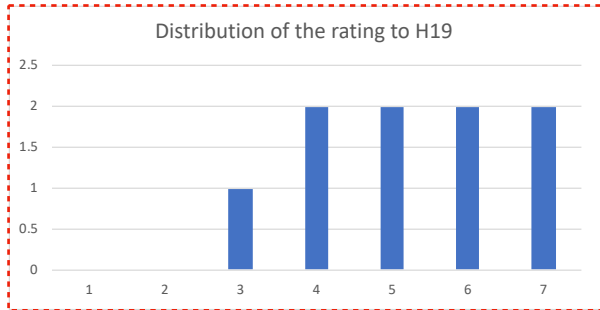
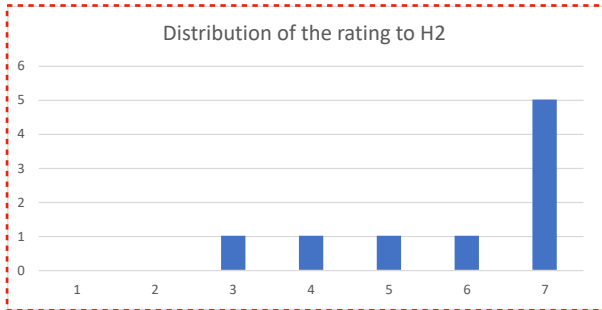
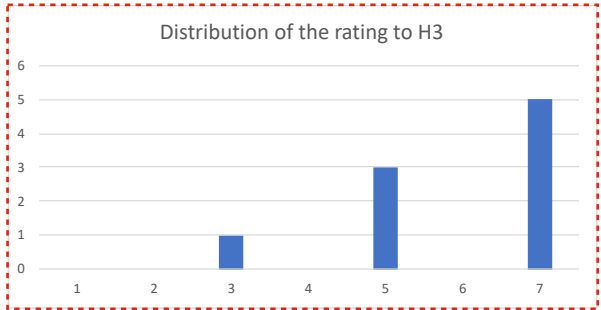
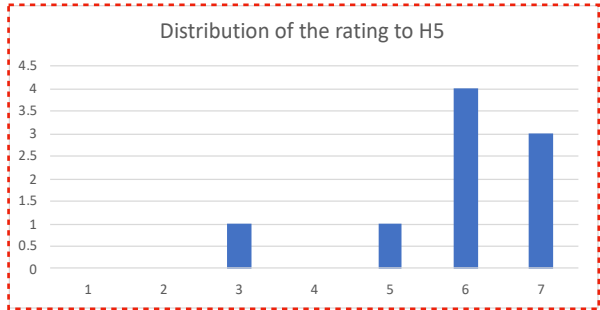
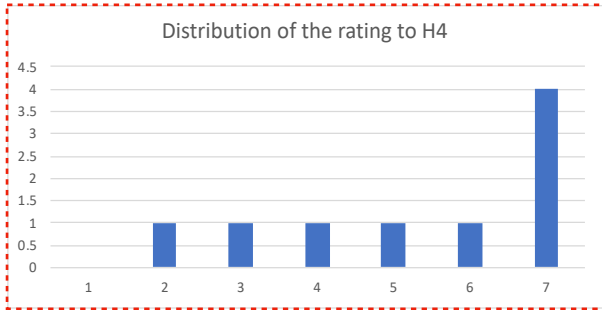
Your answer

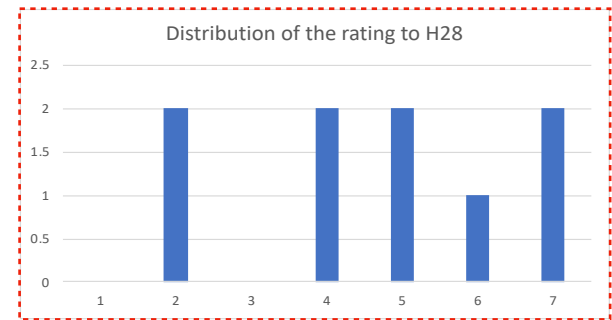
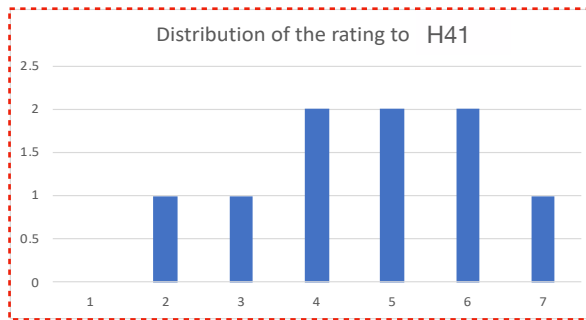
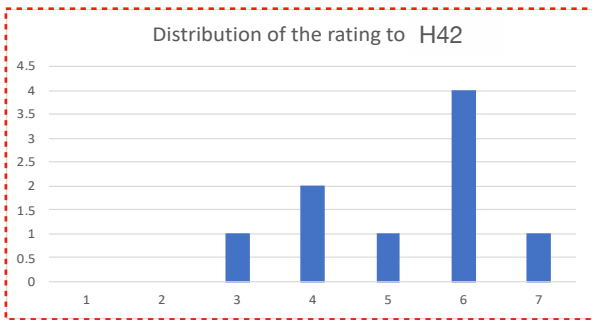
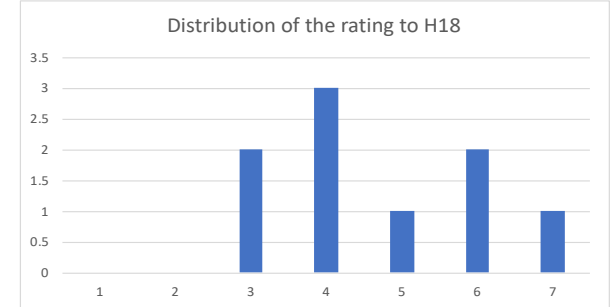
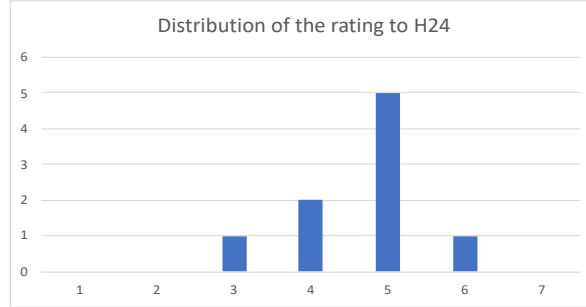
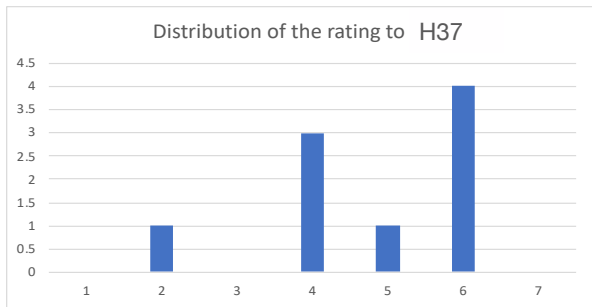
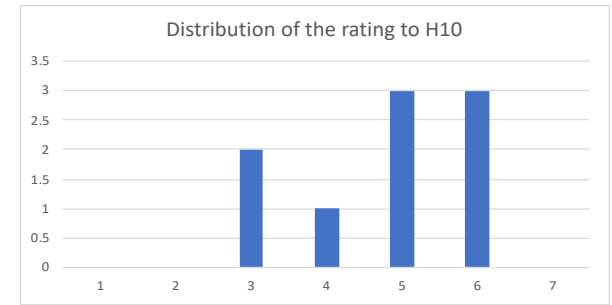
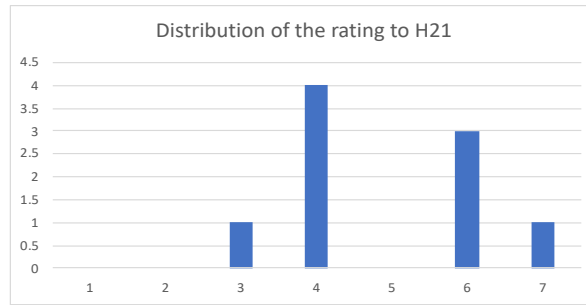
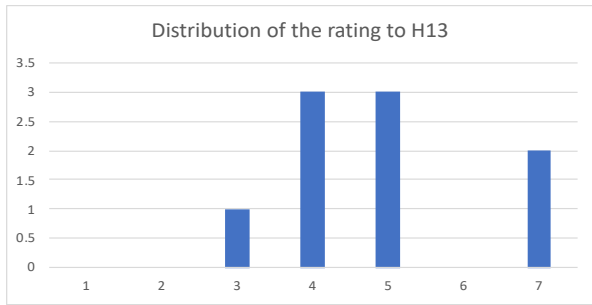
Can you give a short explanation or any comments about your selection?

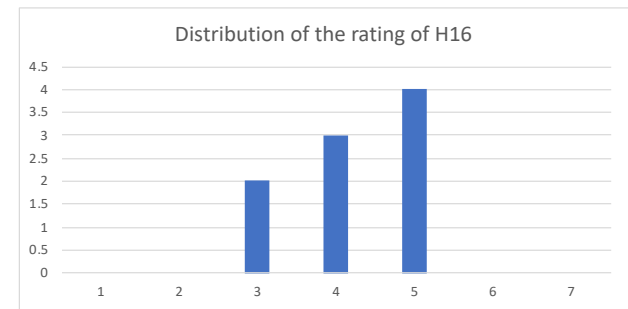
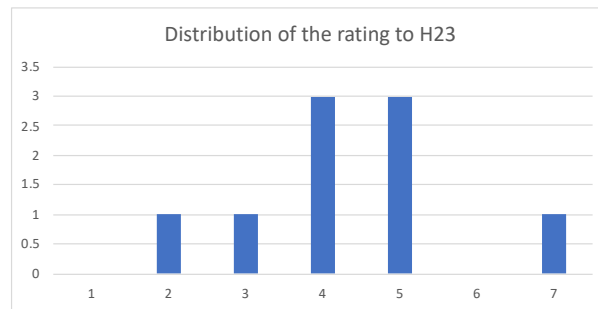
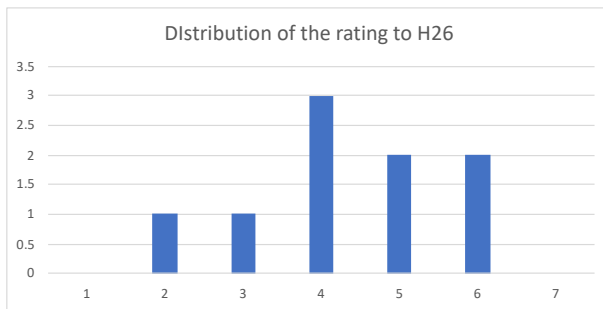
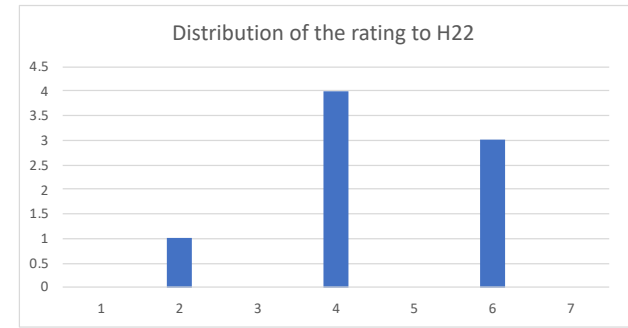
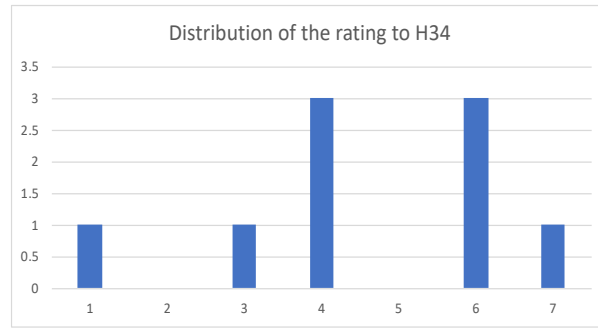
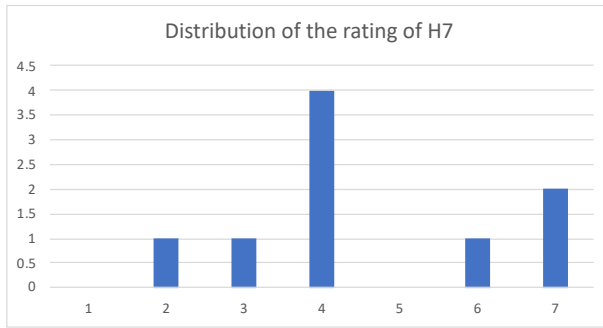
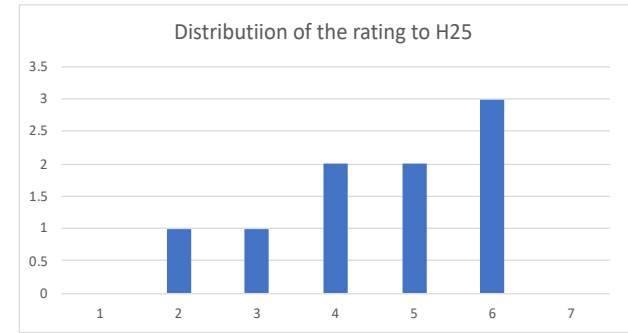
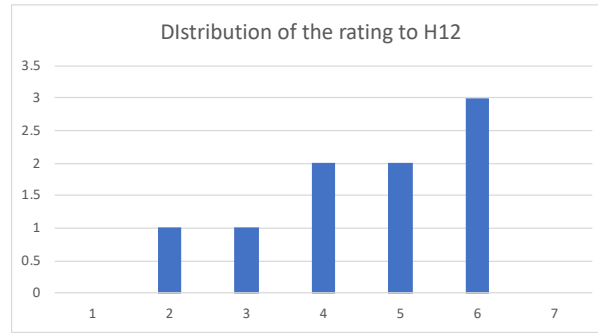
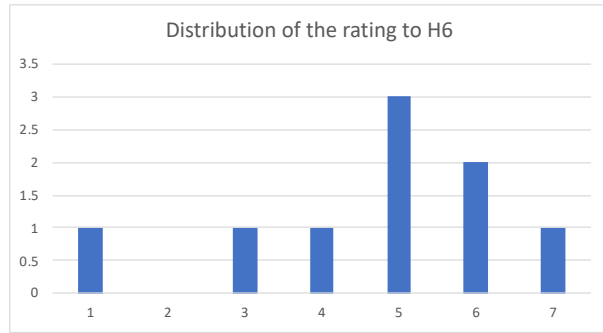
Your answer

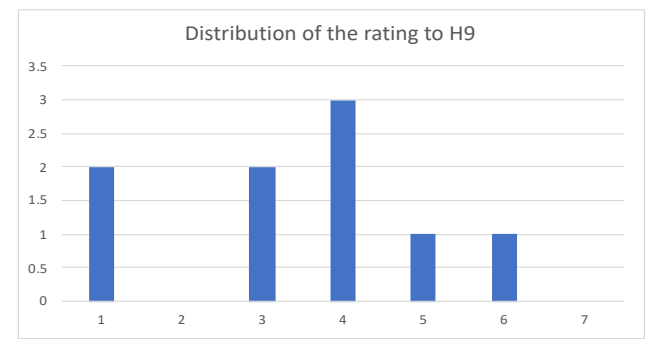
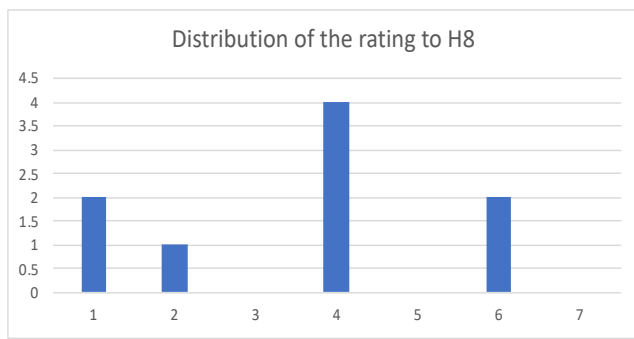
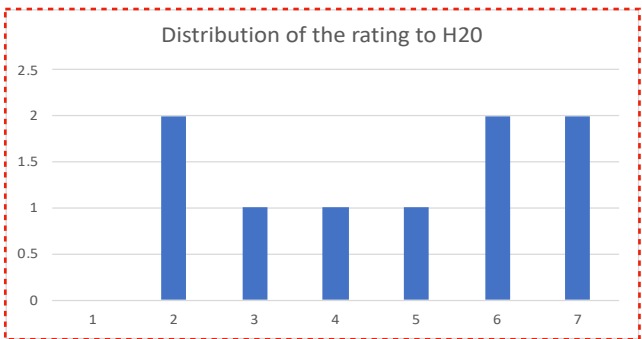
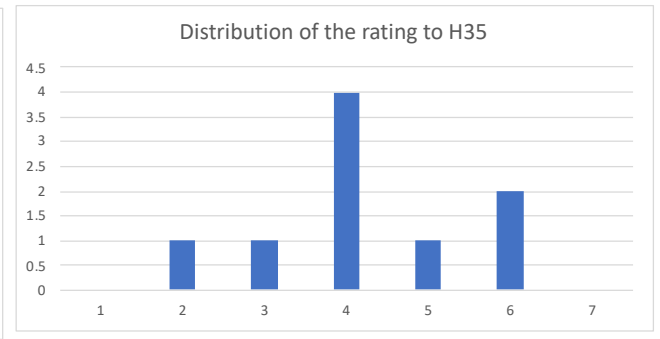
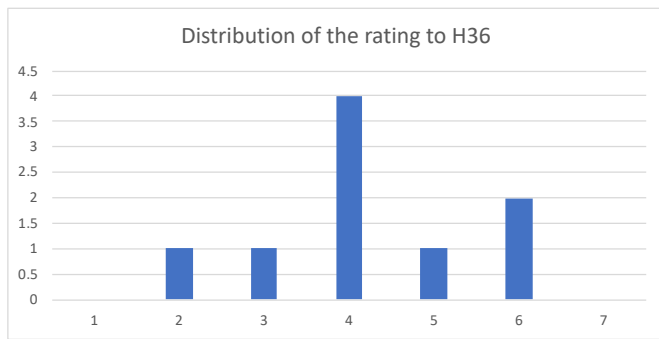
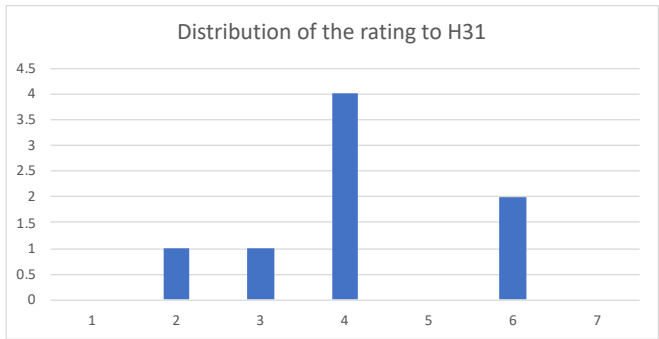
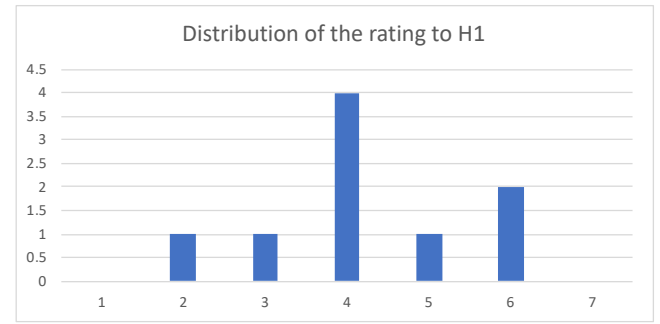
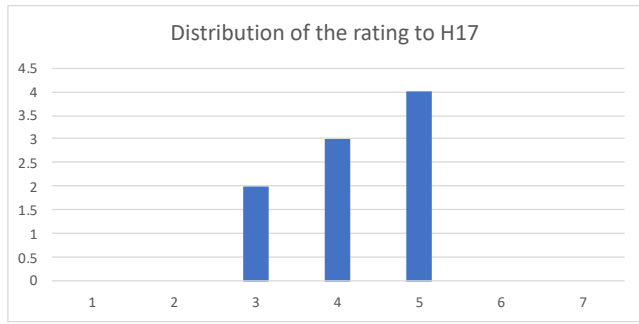
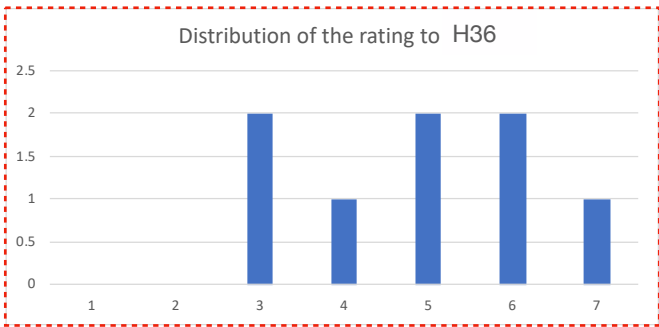
H36	If caregivers interact with the client at the appropriate time, the chance of the caregiver gets stressful will be reduced. (For example, the caregiver will get stressed after several times trying to feed the client medicine, the client gets agitated because he is not in good mood. Then the caregiver will be stressful due to the clients' emotional behavior.)	5	6	6	5	2	4	7	2	2	4.3333333
H17	Staying alone can indicate caregivers the client needs more socialization/company.	5	3	5	5	5	4	4	4	3	4.2222222
H1	"Client staying still" can indicate caregivers the client falls.	4	3	6	6	5	4	4	4	2	4.2222222
H31	Real-time location data can make care planning more adaptive.	4	4	5	6	4	6	4	3	2	4.2222222
H35	Overview of direct interaction can indicate the efficiency of the caregivers' work.	4	4	6	2	6	4	5	3	4	4.2222222
H39	Overview of direct interaction can indicate the how the caregiver approaches the client is not appropriate. For example, the way the caregiver serving a meal is not appropriate.	5	4	6	1	6	5	7	2	2	4.2222222

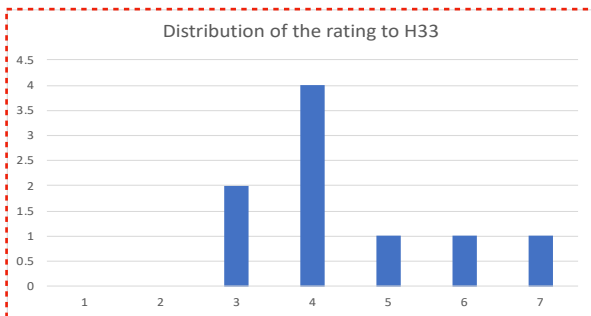
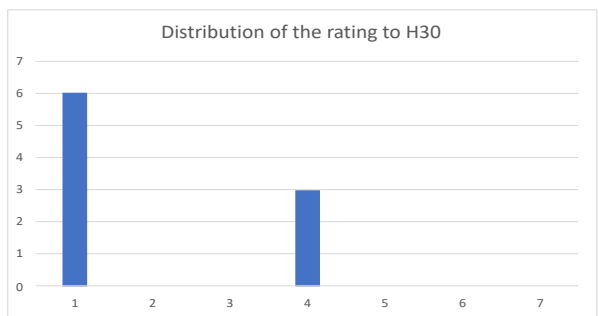
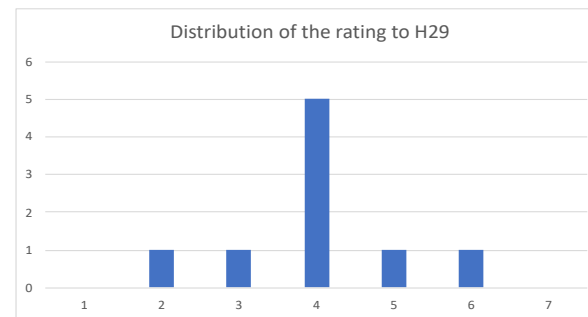
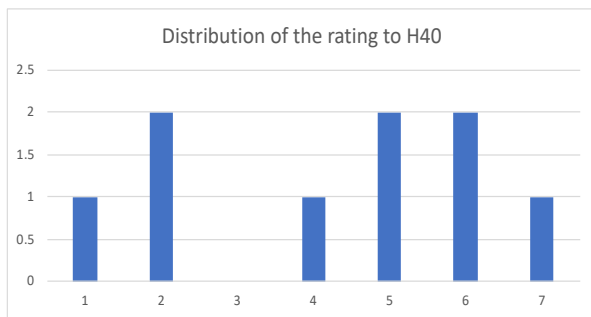
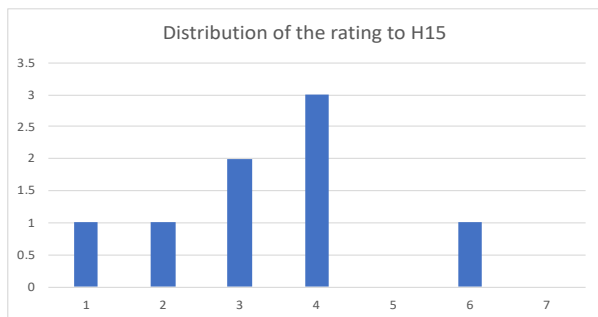
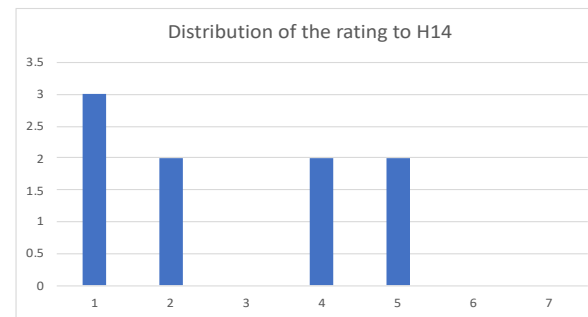
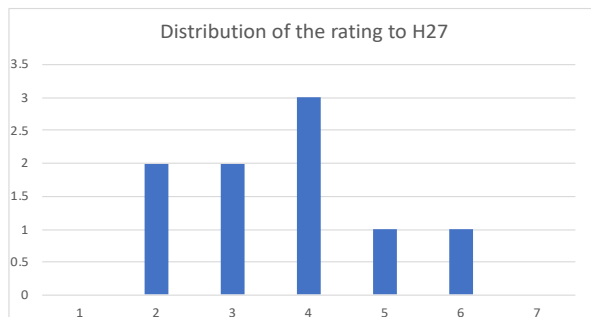
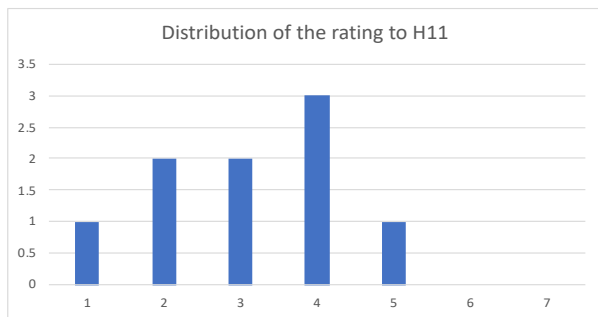
H29	"Client walking a long-distance" can indicate caregivers the client is stressful.	3	4	5	4	4	4	6	2	4	4
H33	Real-time location data can improve the efficiency of care planning.	4	4	5	1	4	6	4	3	3	3.7777778
H13	Overview of direct interaction can indicate the willingness to do something. For example, the client is not willing to eat.	3	4	6	1	4	4	7	3	2	3.7777778
H27	"Movement trajectory" can indicate caregivers the client is stressful.	3	3	5	4	4	4	6	2	2	3.6666667
H6	"Client's walking a long-distance" can indicate caregivers the client need to go to the toilet.	4	4	6	4	4	6	1	2	1	3.5555556
H5	Total walking distance can indicate whether the client needs a weight check.	6	3	4	1	4	4	5	3	1	3.4444444
H11	"Client staying still" can indicate caregivers the client needs more movement/activeness.	5	3	4	3	2	4	1	4	2	3.1111111
H14	"Direct interaction frequency at mealtime" can indicate caregivers the client is not willing to do something". (For example, the caregivers tries to sever meal	1	5	5	4	2	4	1	2	1	2.7777778
H30	"Client staying still" can indicate caregivers the client is depressed.	1	1	1	1	4	4	1	4	1	2





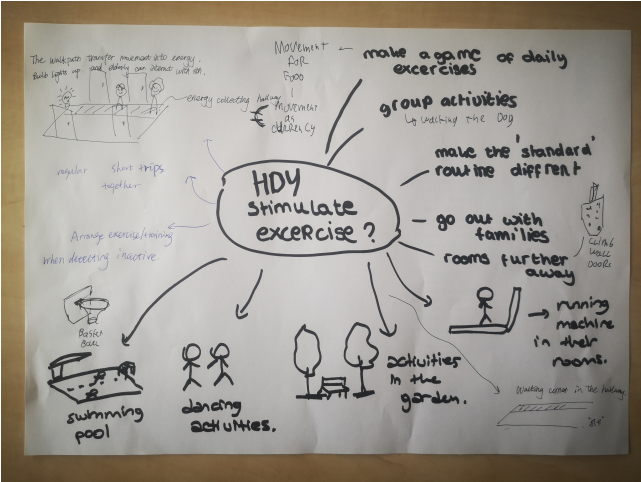
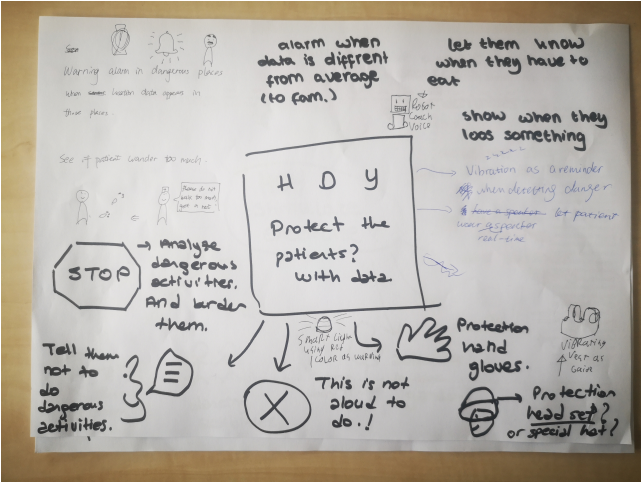
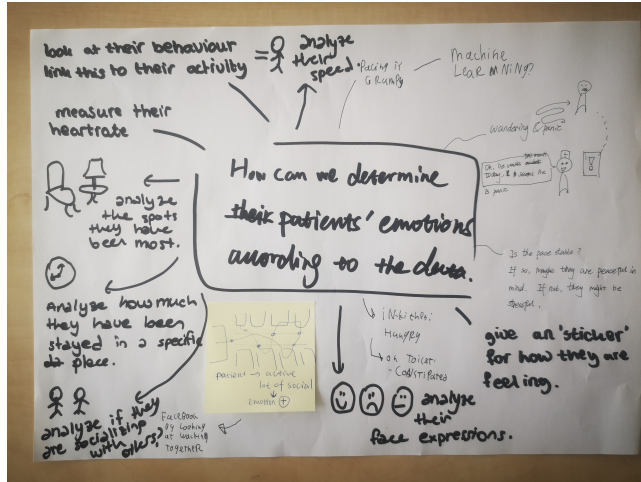
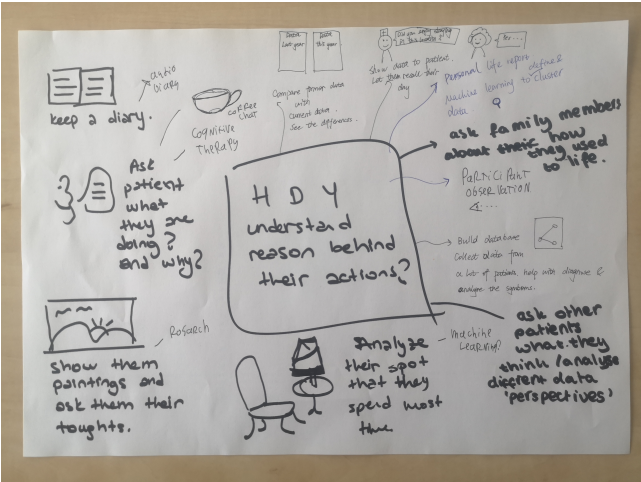
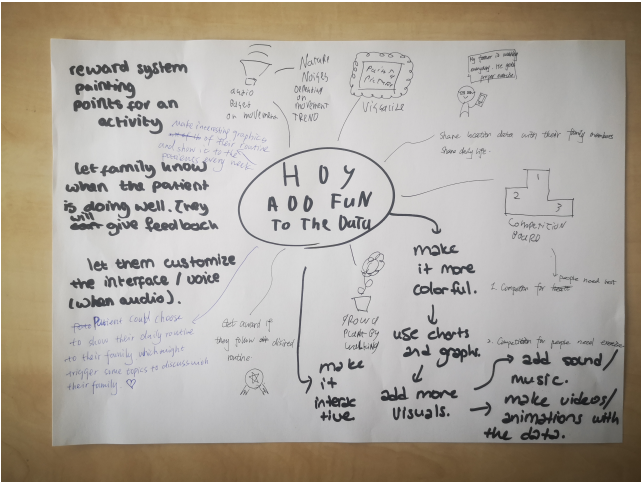






Appendix 3- Location data brainstorming

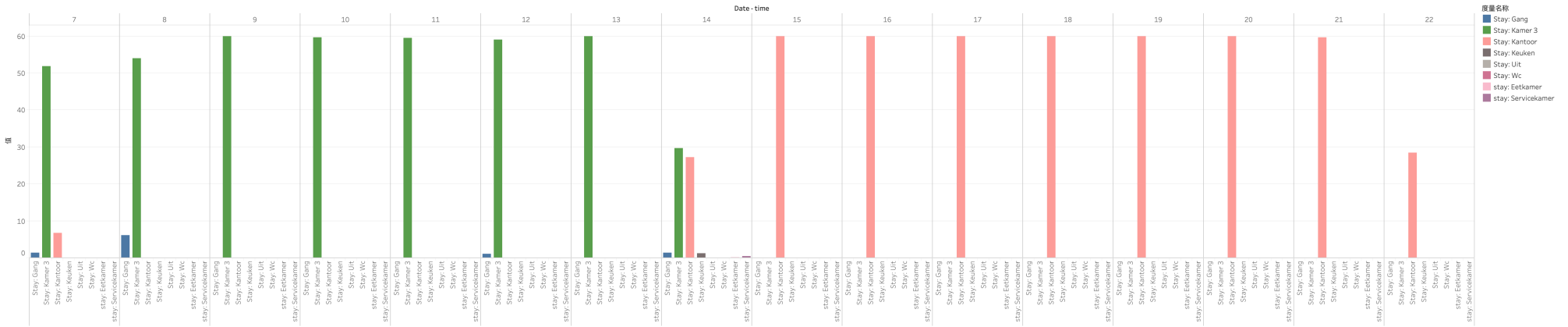
How2 ideas



77	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.05	0.00	0.00	0.00	29.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.97	0.00	0.00	0.00	7.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.12	0.00	1.25	3.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.12	0.00	102.92	303.92	0.00	2.25	445.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97	0.05	0.00	0.17	11.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98	0.00	13.40	0.00	0.00	0.00	12.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101	0.00	0.78	0.00	0.00	0.00	10.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
103	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	0.00	1.12	0.00	0.00	0.00	10.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.62	21.42	0.00	0.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
116	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
118	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
121	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
122	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
124	0.00	16.08	332.50	0.00	0.00	160.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0	3.533333333	4.533333333	0	0	9.566666667	0	0	0	0	0	0	0	0	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	11.133333333	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	4.75	0	0	0	25.25	0	0	0	0	0	0	0	0	0
130	0	0.733333333	0	0	0	29.266666667	0	0	0	0	0	0	0	0	0
131	0	0.083333333	0	0	0	29.916666667	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0
136	0	7.333333333	0	0	0	19.433333333	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	8.183333333	0	0	0	0.35	0	0	0	0	0	0	0	0	0
144	0	1.35	0.166666667	0	0	0	0	0	0	0	0.15	0.266666667	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	0	3.5	0	0.116666667	0	0	7.95	0	0	0	0.333333333	0	0.266666667	0	0
148	0	15.95	1.766666667	0	0	0	0.066666667	6.733333333	0	4.583333333	0	0	0.566666667	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	59.583333333	36.466666667	0.116666667	0	233.7833333	8.016666667	6.733333333	0	4.58	2.8	4.916666667	0.266666667	1.233333333	0

First brainstorming session

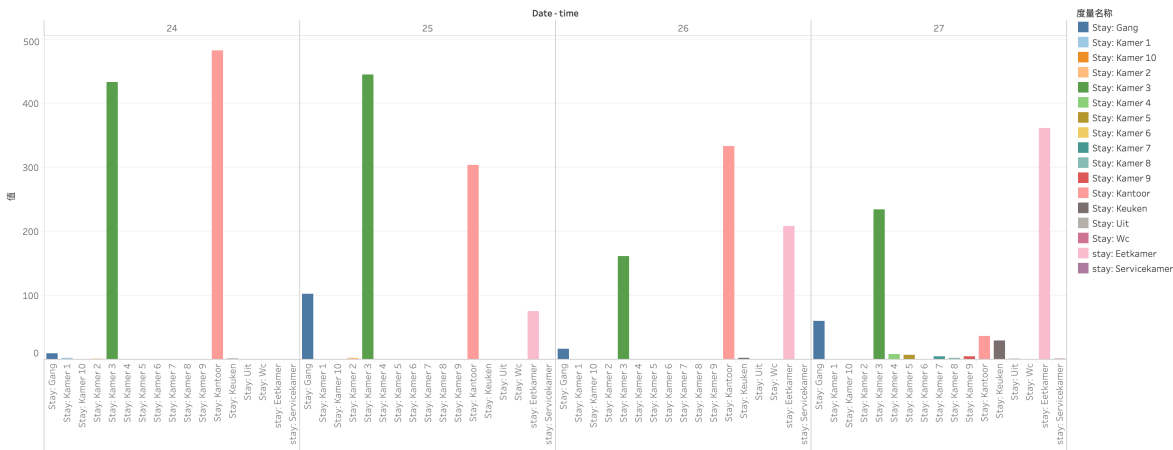
工作表 1



每个 Date-time 小时的 stay: Eetkamer, Stay: Gang, Stay: Kamer 3, Stay: Kantoor, Stay: Keuken, stay: Servicekamer, Stay: Uit 与 Stay: Wc 的停留时间。颜色显示有关 stay: Eetkamer, Stay: Gang, Stay: Kamer 3, Stay: Kantoor, Stay: Keuken, stay: Servicekamer, Stay: Uit 与 Stay: Wc 的详细信息。

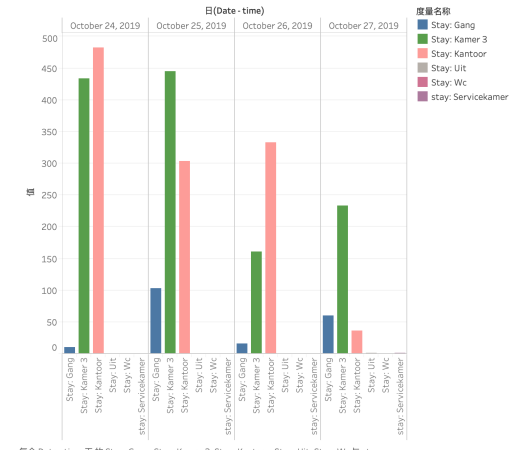
Duration of staying near main rooms in nursing home on Oct 24th

工作表 4



每个 Date-time 天的 Stay: Gang, Stay: Kamer 1, Stay: Kamer 10, Stay: Kamer 2, Stay: Kamer 3, Stay: Kamer 4, Stay: Kamer 5, Stay: Kamer 6, Stay: Kamer 7, Stay: Kamer 8, Stay: Kamer 9, Stay: Kantoor, Stay: Keuken, Stay: Uit, Stay: Wc, stay: Eetkamer 与 stay: Servicekamer。颜色显示有关 Stay: Gang, Stay: Kamer 1, Stay: Kamer 10, Stay: Kamer 2, Stay: Kamer 3, Stay: Kamer 4, Stay: Kamer 5, Stay: Kamer 6, Stay: Kamer 7, Stay: Kamer 8, Stay: Kamer 9, Stay: Kantoor, Stay: Keuken, Stay: Uit, Stay: Wc, stay: Eetkamer 与 stay: Servicekamer 的详细信息。

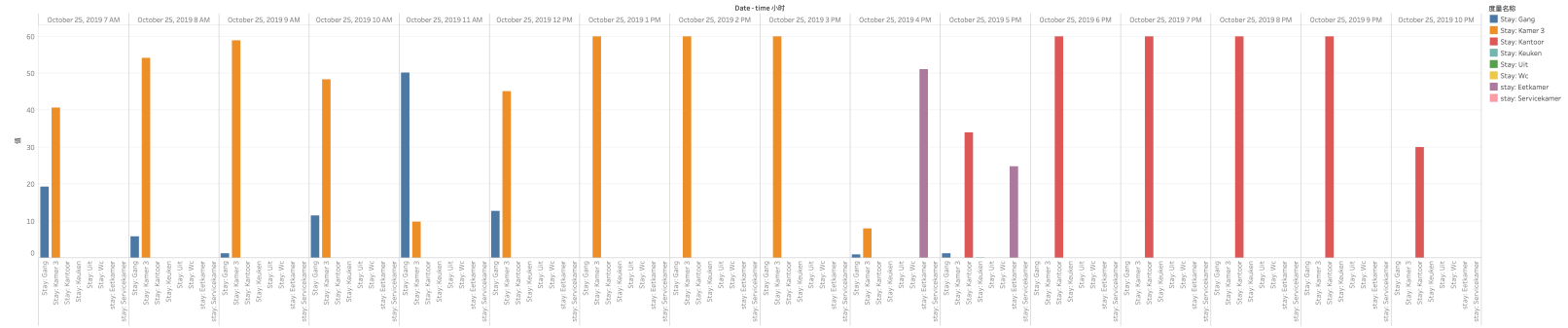
工作表 4



每个 Date-time 天的 Stay: Gang, Stay: Kamer 3, Stay: Kantoor, Stay: Uit, Stay: Wc 与 stay: Servicekamer。颜色显示有关 Stay: Gang, Stay: Kamer 3, Stay: Kantoor, Stay: Uit, Stay: Wc 与 stay: Servicekamer 的详细信息。

Duration of staying in each rooms in nursing home in four days

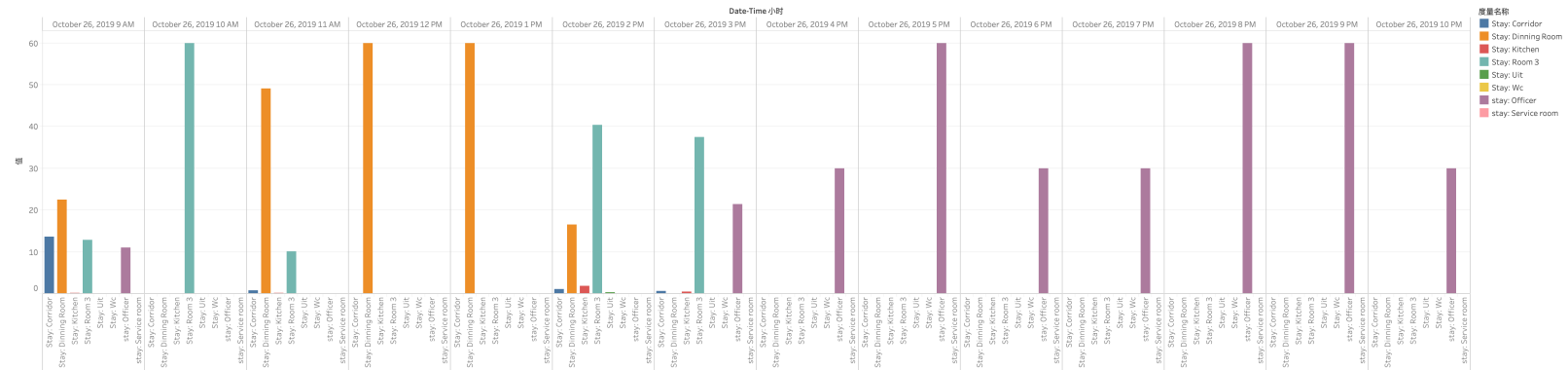
工作表 1



每个 Date-Time 小时的 Stay-Gang, Stay-Kamer 3, Stay-Kantoor, Stay-Keuken, Stay-Uit, Stay-Wc, stay-Eetkamer 号 stay-Servicekamer, 颜色显示有关 Stay-Gang, Stay-Kamer 3, Stay-Kantoor, Stay-Keuken, Stay-Uit, Stay-Wc, stay-Eetkamer 号 stay-Servicekamer 的详细消息。

Duration of staying near main rooms in nursing home on Oct 25th

工作表 1

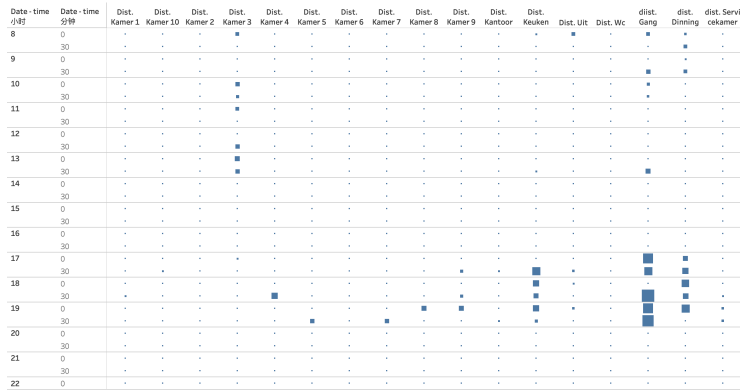


每个 Date-Time 小时的 Stay-Corridor, Stay-Dinning Room, Stay-Kitchen, Stay-Room 3, Stay-Uit, Stay-Wc, stay-Officer 号 stay-Service room, 颜色显示有关 Stay-Corridor, Stay-Dinning Room, Stay-Kitchen, Stay-Room 3, Stay-Uit, Stay-Wc, stay-Officer 号 stay-Service room 的详细消息。

Duration of staying near main rooms in nursing home on Oct 26th

Second

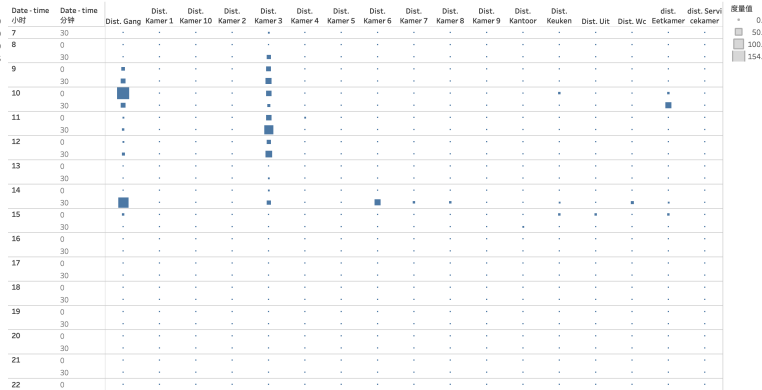
<Distance of walking in each room every 30 mins on Oct 27th>



按 Date-time 小时与 Date-time 分钟 细分的 Dist. Gang, Dist. Kamer 1, Dist. Kamer 10, Dist. Kamer 2, Dist. Kamer 3, Dist. Kamer 4, Dist. Kamer 5, Dist. Kamer 6, Dist. Kamer 7, Dist. Kamer 8, Dist. Kamer 9, Dist. Kantoor, Dist. Keuken, Dist. Uit, Dist. Wc, dist. Eetkamer 与 dist. Serv.cekamer (大小).

Walking distance in each room every 30 minutes on Oct 27th

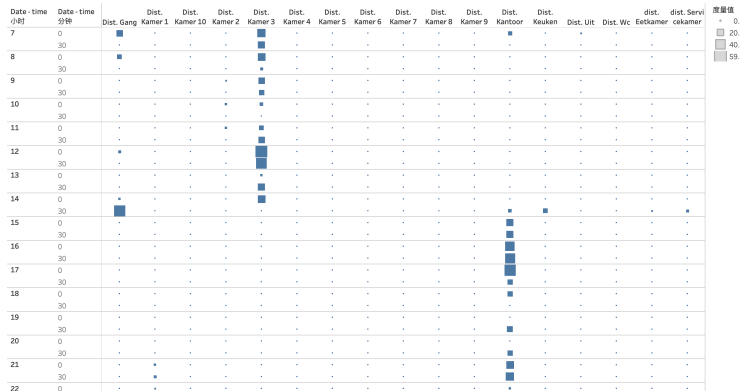
<Distance of walking in each room per 30 mins on Oct 23th>



按 Date-time 小时与 Date-time 分钟 细分的 Dist. Gang, Dist. Kamer 1, Dist. Kamer 10, Dist. Kamer 2, Dist. Kamer 3, Dist. Kamer 4, Dist. Kamer 5, Dist. Kamer 6, Dist. Kamer 7, Dist. Kamer 8, Dist. Kamer 9, Dist. Kantoor, Dist. Keuken, Dist. Uit, Dist. Wc, dist. Eetkamer 与 dist. Serv.cekamer (大小).

Walking distance in each room every 30 minutes on Oct 23th

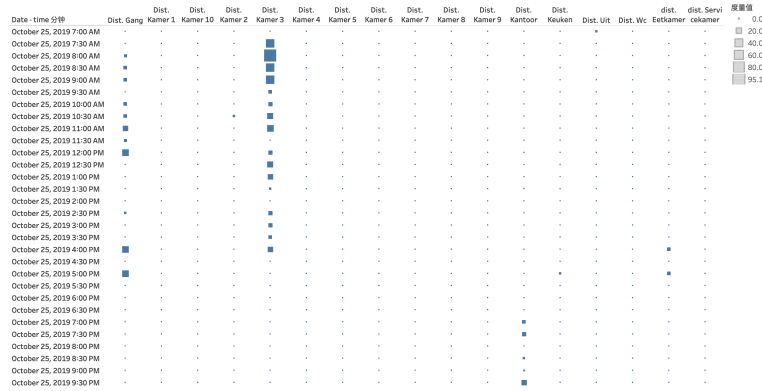
<Distance of walking in each room every 30 mins on Oct 24th>



按 Date-time 小时与 Date-time 分钟 细分的 Dist. Gang, Dist. Kamer 1, Dist. Kamer 10, Dist. Kamer 2, Dist. Kamer 3, Dist. Kamer 4, Dist. Kamer 5, Dist. Kamer 6, Dist. Kamer 7, Dist. Kamer 8, Dist. Kamer 9, Dist. Kantoor, Dist. Keuken, Dist. Uit, Dist. Wc, dist. Eetkamer 与 dist. Serv.cekamer (大小).

Walking distance in each room every 30 minutes on Oct 24th

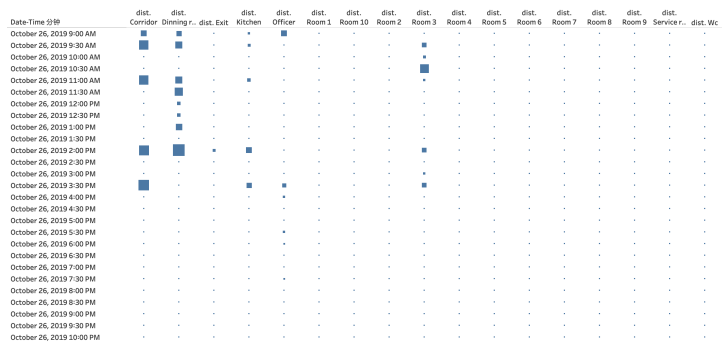
<Distance of walking in different room on Oct 25th>



按 Date-time 分钟 细分的 Dist. Gang, Dist. Kamer 1, Dist. Kamer 10, Dist. Kamer 2, Dist. Kamer 3, Dist. Kamer 4, Dist. Kamer 5, Dist. Kamer 6, Dist. Kamer 7, Dist. Kamer 8, Dist. Kamer 9, Dist. Kantoor, Dist. Keuken, Dist. Uit, Dist. Wc, dist. Eetkamer 与 dist. Serv.cekamer (大小).

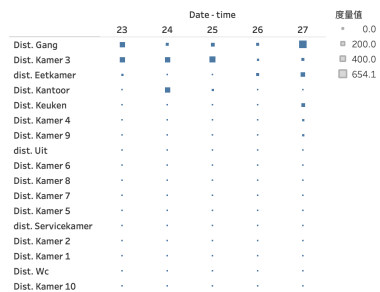
Walking distance in each room every 30 minutes on Oct 25th

<Distance of walking in each room every 30 mins on Oct 26th>



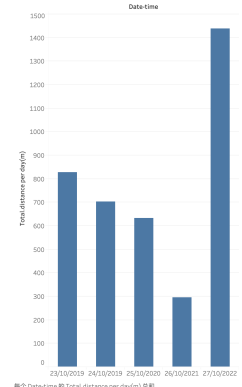
按 Date-Time 分钟细分的 dist. Corridor, dist. Dining room, dist. Exit, dist. Kitchen, dist. Officer, dist. Room 1, dist. Room 10, dist. Room 2, dist. Room 3, dist. Room 4, dist. Room 5, dist. Room 6, dist. Room 7, dist. Room 8, dist. Room 9, dist. Service room 与 dist. Wc (大小).

<Total distance during a day in each room for 5 days>



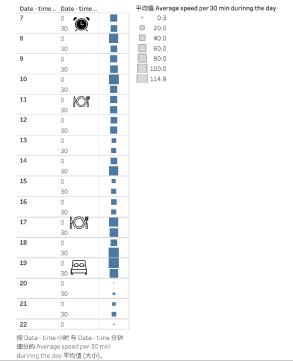
按 Date-time 天 细分的 Dist. Gang, Dist. Kamer 3, dist. Eetkamer, Dist. Kantoor, Dist. Keuken, Dist. Kamer 4, Dist. Kamer 9, dist. Uit, Dist. Kamer 5, Dist. Kamer 8, Dist. Kamer 7, Dist. Kamer 5, dist. Servicekamer, Dist. Kamer 2, Dist. Kamer 1, Dist. Wc 与 Dist. Kamer 10 (大小).

<Total distance per day>



按 Date-time 天 对 Total distance per day(m) 总结.

<Average speed per 30 mins during 5 days>



按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30 min during the day 平均值 (大小).

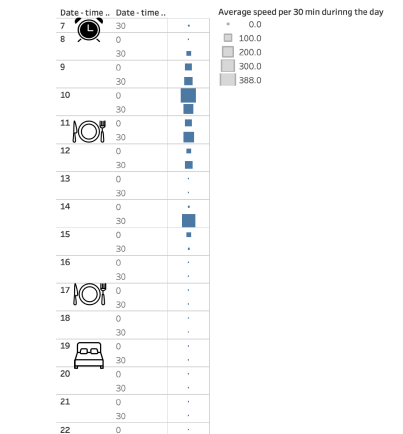
Walking distance in each room every 30 minutes on Oct 26th

Overview of total walking distance in each room for 5 days

Trend of total walking distance

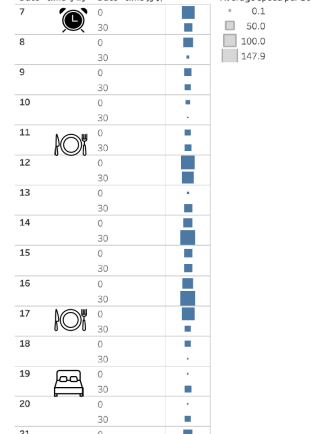
Average speed in different rooms per 30 mins during 5days

<Average speed per 30 mins during Oct 23th>



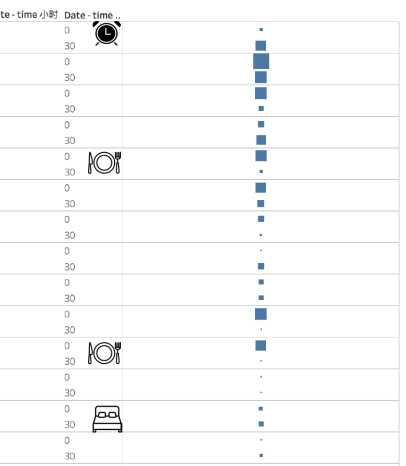
按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30 min during the day 总和 (大小). 根据 Date-time 小时 进行筛选, 这会排除 Null.

<Average speed per 30 mins on Oct 24th>



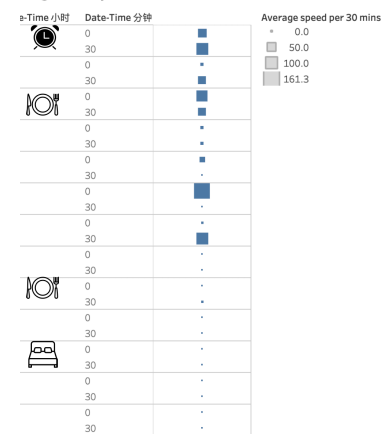
按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30 mins 总和 (大小).

<Average speed per 30 mins Oct 25th>



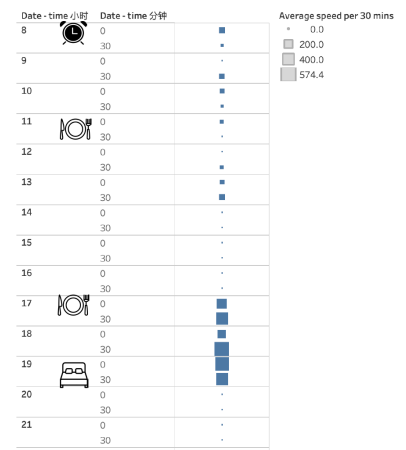
按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30mins 总和 (大小).

verage speed per 30 mins during the day Oct 26th>



按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30 mins 总和 (大小).

<Average speed per 30min on Oct 27th>



按 Date-time 小时与 Date-time 分钟 细分的 Average speed per 30 mins 总和 (大小).

Average speed per 30 mins Oct 23rd

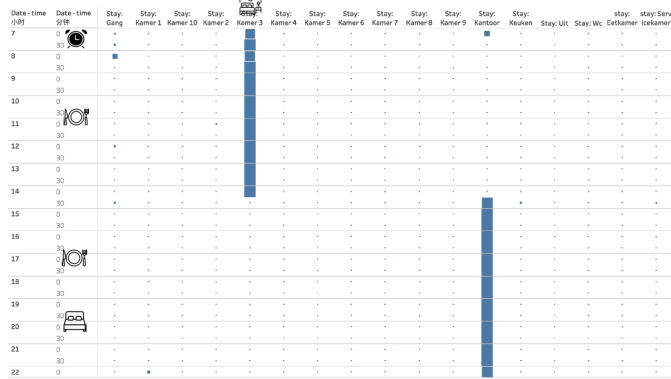
Average speed per 30 mins Oct 24th

Average speed per 30 mins Oct 25th

Average speed per 30 mins Oct 26th

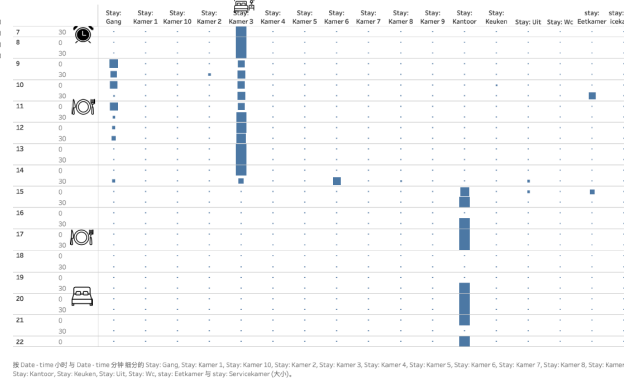
Average speed per 30 mins Oct 27th

<Duration of stay every 30 mins in different room on Oct 24th>



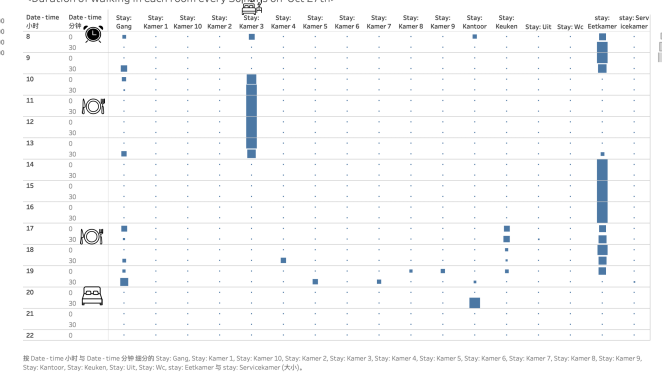
Duration of stay every 30 mins in different rooms on Oct 24th

<Duration of staying every room for 30 mins on Oct 23th>



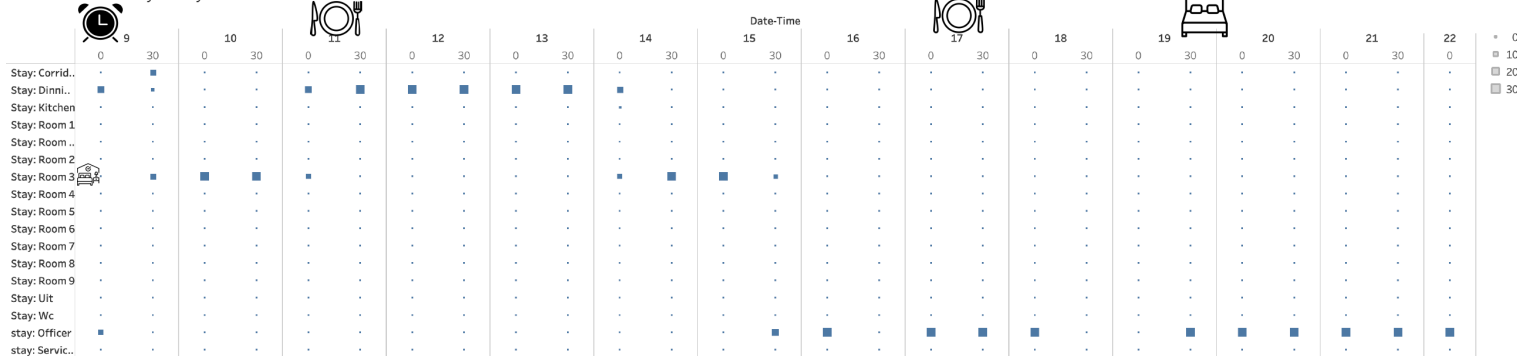
Duration of stay every 30 mins in different rooms on Oct 23rd

<Duration of walking in each room every 30 mins on Oct 27th>



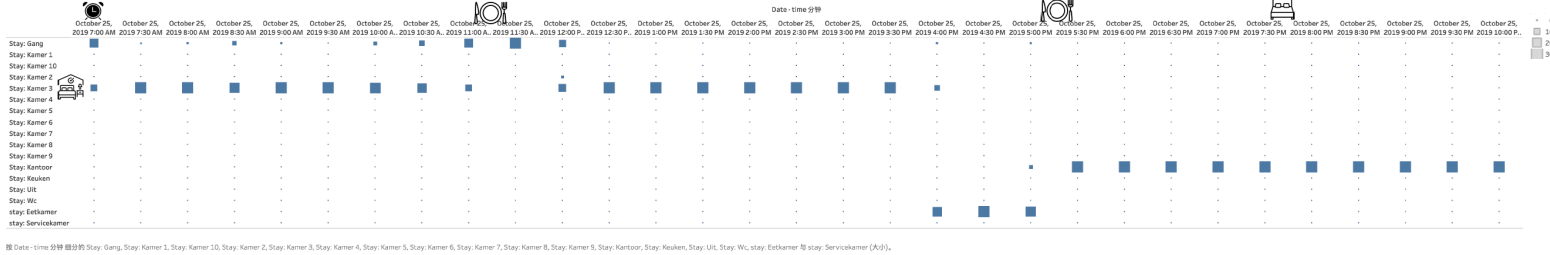
Duration of stay every 30 mins in different rooms on Oct 27th

<Duration of stay every 30 mins in different room on Oct 26th>



按 Date-Time 小时与 Date-Time 分钟分的 Stay: Corridor, Stay: Dinning Room, Stay: Kitchen, Stay: Room 1, Stay: Room 10, Stay: Room 2, Stay: Room 3, Stay: Room 4, Stay: Room 5, Stay: Room 6, Stay: Room 7, Stay: Room 8, Stay: Room 9, Stay: Uit, Stay: Wc, stay: Officer 与 stay: Service room (大小).

<Duration of stay every 30 mins in different room on Oct 25th>



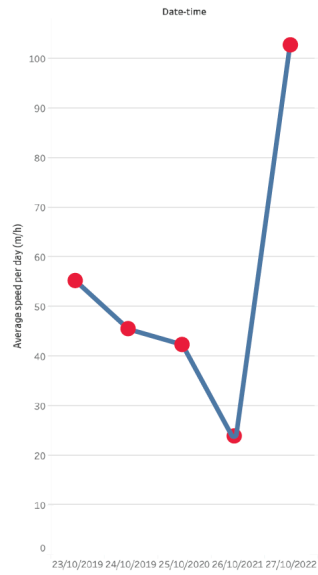
按 Date-Time 分钟分的 Stay: Gang, Stay: Kamer 1, Stay: Kamer 10, Stay: Kamer 2, Stay: Kamer 3, Stay: Kamer 4, Stay: Kamer 5, Stay: Kamer 6, Stay: Kamer 7, Stay: Kamer 8, Stay: Kamer 9, Stay: Kantoor, Stay: Keuken, Stay: Uit, Stay: Wc, stay: Eetkamer 与 stay: Servicekamer (大小).

Duration of stay every 30 mins in different rooms on Oct 25th

Duration of stay every 30 mins in different rooms on Oct 26th

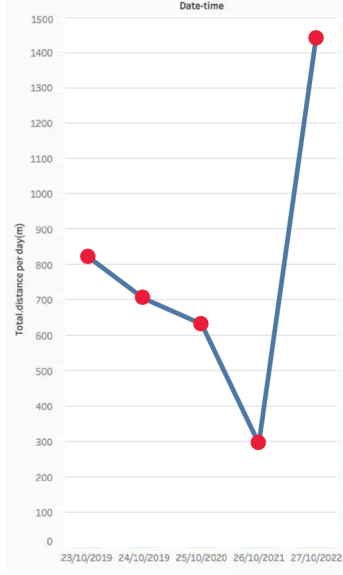
Third

Average speed from Oct 23th to 27th



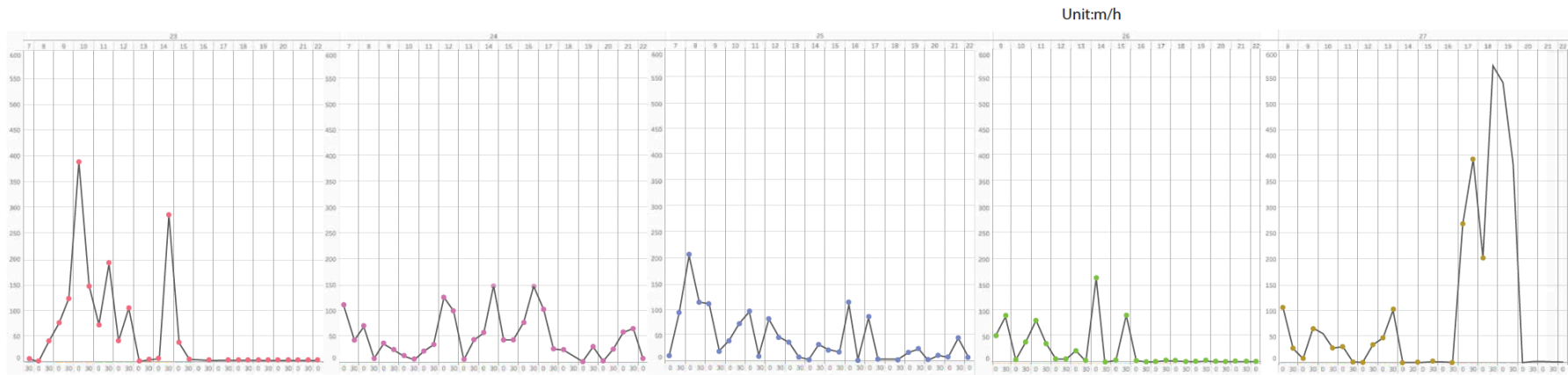
Trend of walking speed

Walking distance from Oct 23th to 27th

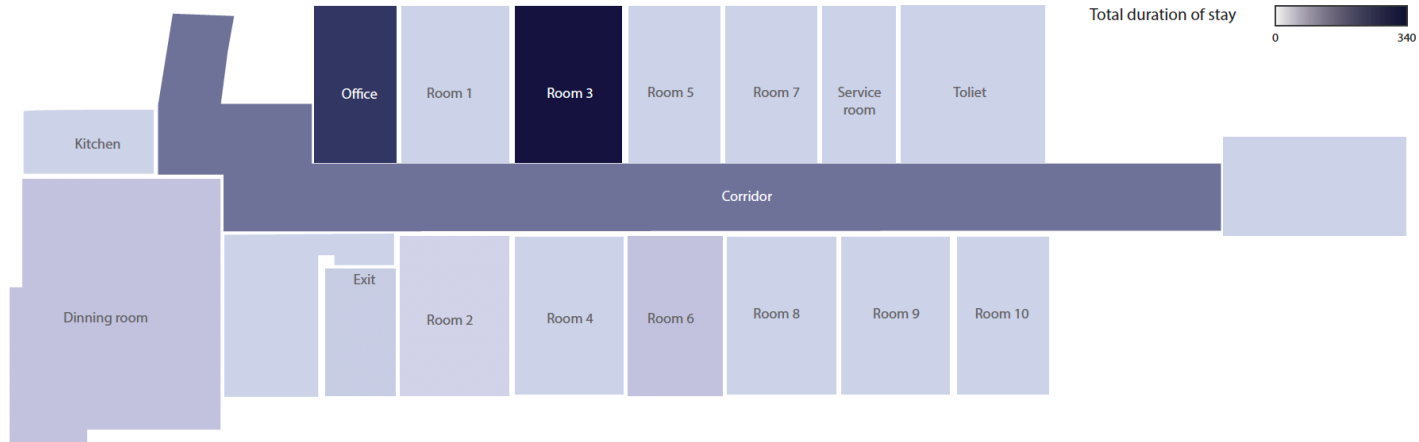


Trend of walking Distance

Overview of walking speed from Oct 23th to Oct 27th



Duration of stay on Oct 23th

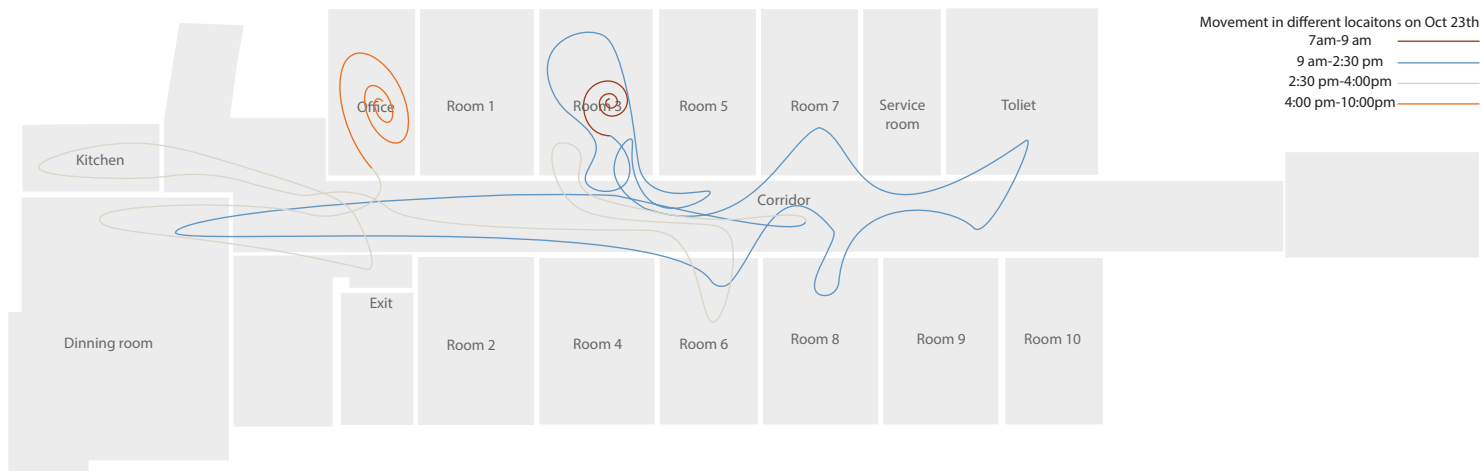


Date-time 小时	Date-time 分钟	Stay: Gang	Stay: Kamer 1	Stay: Kamer 10	Stay: Kamer 2	Stay: Kamer 3	Stay: Kamer 4	Stay: Kamer 5	Stay: Kamer 6	Stay: Kamer 7	Stay: Kamer 8	Stay: Kamer 9	Stay: Kantoor	Stay: Keuken	Stay: Lift	Stay: Wc	stay: Eetkamer	stay: icekamer	stay: Serv
7	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

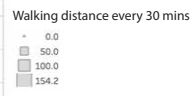
Duration of stay every 30 mins



Walking distance in each room every 30 minutes on a single day

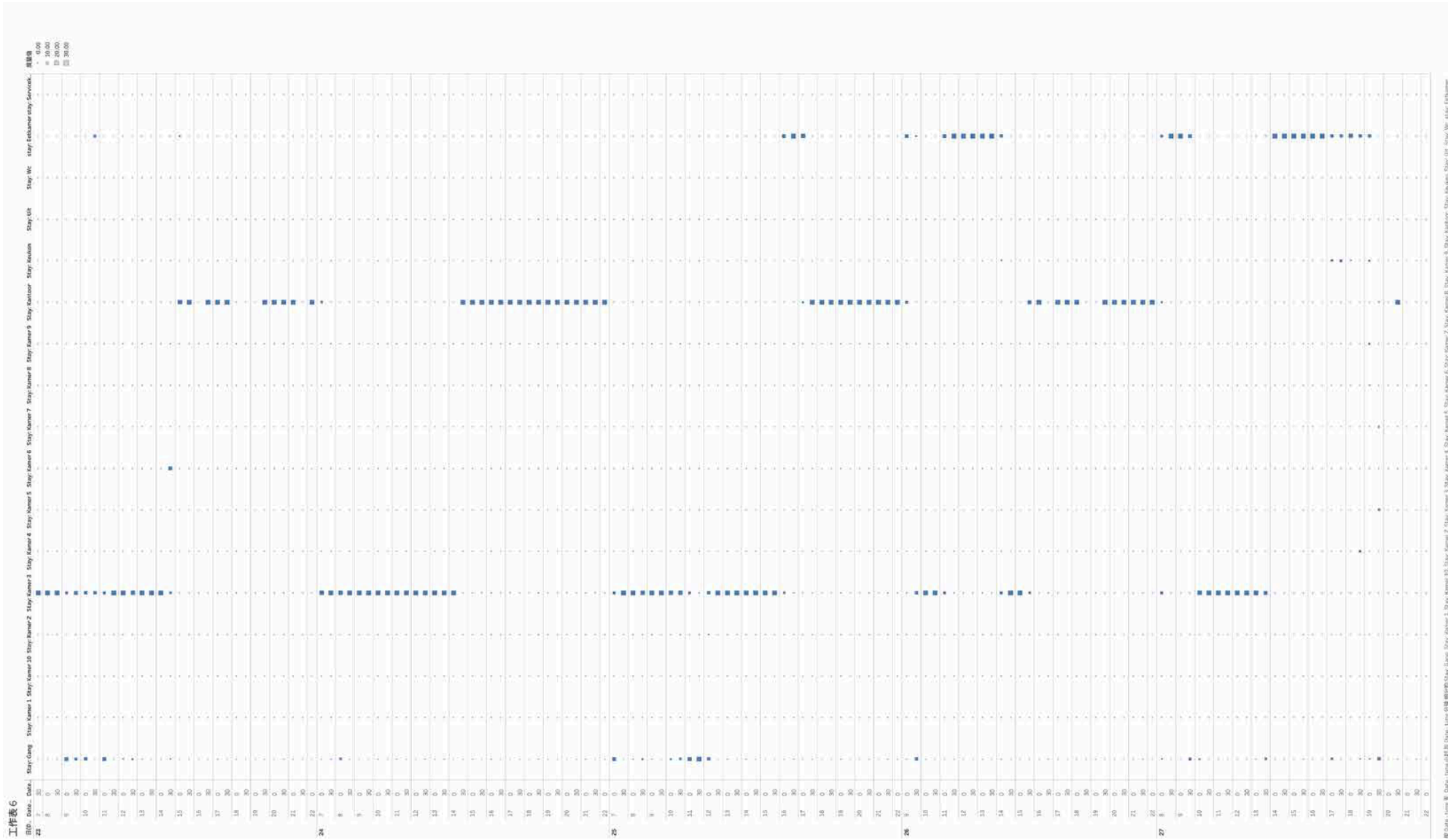


		Dist. Gang	Dist. Kamer 1	Dist. Kamer 10	Dist. Kamer 2	Dist. Kamer 3	Dist. Kamer 4	Dist. Kamer 5	Dist. Kamer 6	Dist. Kamer 7	Dist. Kamer 8	Dist. Kamer 9	Dist. Kantoor	Dist. Keuken	Dist. Uit	Dist. Wc	dist. Eetkamer	dist. Serv. cekamer
7	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
8	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
9	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*



Date-time ..	Date-time ..	Average speed every 30 mins
7	30	*
8	0	*
9	0	*
10	0	*
11	0	*
12	0	*
13	0	*
14	0	*
15	0	*
16	0	*
17	0	*
18	0	*
19	0	*
20	0	*
21	0	*
22	0	*

Duration of stay and moving trajectory of the client in one day



Overview of duration of stay in five days

此图表显示了在五天内的停留时长概览。图例：0-10:00 (蓝色)、10:00-20:00 (绿色)、20:00-24:00 (红色)。停留类别：Stay Room 1, Stay Room 2, Stay Room 3, Stay Room 4, Stay Room 5, Stay Room 6, Stay Room 7, Stay Room 8, Stay Room 9, Stay Room 10, Stay Mc, Stay Jit, Stay Room, Stay Room。

