AAL Programme

SUCCESS - **SU**ccessful **C**aregiver **C**ommunication
and **E**veryday **S**ituation **S**upport in dementia care

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ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
AAL	Active and Assisted Living
AAL CMU	AAL Central Management Unit
PwD	Person with Dementia

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AAL PROJECT SUCCESS

In the European research project SUCCESS (SUccessful Caregiver Communication and Everyday Situation Support in dementia care), an innovative mobile training application is being developed. It aims at supporting caregivers of people with dementia (PwD). The users of the application are introduced to evidence-based communication and intervention strategies by reading articles, engaging in conversations with an avatar, and listening to lectures presented by an avatar. This format of learning and the multimodal user interface of the app supports different usage situations and contexts. All implemented features are believed to increase the quality of communication and interaction of care persons with PwD and minimize burden of care. This is done by fostering a deeper understanding for PwD (e.g. understanding why PwD can become aggressive) and supporting the caregiver with useful situation-related suggestions. A remarkable feature of the app is that it is not only focusing on the relationship between the caregiver and the PwD and the behaviour of the PwD, but on the caregiver, too. This is done by highlighting the importance of self-care among caregivers and implementing a meditation and diary feature. SUCCESS supports the PwD to maintain a purposeful life by suggesting meaningful activities that can be adapted to various stages of dementia. Additionally, the app provides a quick help feature and the possibility to personalize the content by using tags. Therefore, SUCCESS is an application that caters to every stage of dementia and supports caregivers in various situations by providing information, a possibility to apply and train the gained knowledge, and tools for self-care.

The research presented is conducted within the SUCCESS project (AAL-2016-089), partially funded by the European Active and Assisted Living Programme and the National Funding Agencies from Austria, Cyprus, Norway and Romania.

EXECUTIVE SUMMARY

This deliverable describes the aim and methodology of both the qualitative and quantitative field trials. Those studies are done in Austria and Romania, conducted by the partners EUR, AIT and RAS.

The aim of the first field trial is to test the first integrated prototype (in terms of acceptance, reliability and performance). The feedback will be subsequently used as input for the further development resulting in the second integrated prototype (during the 2nd integration phase) and finally for the second field trials. After the 3rd integration phase, the final prototype will be developed.

For the qualitative trial altogether 16 carers and 20 Persons with Dementia (PwD) they care for, will be included in the two trial sites of Austria and Romania. For the second field study, which has a quantitative focus, in sum 60 carers will be invited to use the system for six months and the outcomes for 60 PwD they care for will also be monitored.

The results of the qualitative and quantitative trial will be described in D5.2 (Report of the User Trials and Evaluation).

1. ABOUT THIS DOCUMENT

1.1 ROLE OF THE DELIVERABLE

This deliverable serves as common document for the methodological conduction and analysis of the qualitative and quantitative trial which will be carried out in Austria and Romania.

1.2 RELATIONSHIP TO OTHER SUCCESS DELIVERABLES

The deliverable is related to the following SUCCESS deliverables:

DELIVERABLE	RELATION
D5.2 Report of the User Trials and Evaluation	The data collected automatically by the system and information gathered from the end-users in surveys, diaries, inter-views, questionnaires etc. is evaluated and conclusions are drawn in a final evaluation report.

1.3 STRUCTURE OF THIS DOCUMENT

Chapter 2 describes the aim of the qualitative and quantitative trials.
Chapter 3 describes the concept and methodology of the qualitative trial.
Chapter 4 describes the concept and methodology of the quantitative trial.

Appendix A presents the informed consents to be used during the qualitative and quantitative trial.
Appendix B presents the scales to be used during the first trial.
Appendix C presents the interview guidelines to be used during the first trial.
Appendix D presents the scales to be used during the second trial.
Appendix E presents the interview guidelines to be used during the second trial.

2. AIM AND STRUCTURE OF THE TRIALS

Based on initial plans, initial user needs assessment (through ethnographic studies) as well as feedback provided on a first prototype (in the framework of two previous lab trials) the SUCCESS team has developed and built up a controlled environment running a special pilot application of the SUCCESS application. This includes mechanisms for monitoring the performance and reliability of the system, deploying updates, and remotely collecting the user feedback.

With the first field trial we aim to evaluate the platform in terms of user experience and its impact on caregiver satisfaction and burden and quality of life with a qualitative focus. After analysing those trials and adapting the prototype, a second field trial with 60 caregivers (and 60 PwD) will be conducted focusing again on the evaluation of user experience and its impact on the caregiver satisfaction and burden and quality of life but with a more quantitative focus. The caregivers will be equipped with the SUCCESS application and will — in addition to a comprehensive evaluation of the system — provide information on selected indicators such as improved caregiver satisfaction, reduced care burden, behavioural problems of the PwD (see section 1.4) in a pre-post design.

Table 1: Overview on study design of the two field trials

Aim	Method	Users	UCD activity
Evaluation of user interfaces, services, acceptance, user experience, investigate effects on users; improve the system	Field-based study (qualitative focus).	each 8 (in-)formal carers in AT and RO / each 10 PwD in AT and RO	Evaluate designs against requirements
Evaluation of user interfaces, services, acceptance, user experience, investigate effects on users; improve the system	Field-based study; pre–post design (quantitative focus)	each 30 (in-)formal carers in AT and RO / each 30 PwD in AT and RO	Evaluate designs against requirements

3. CONCEPT AND METHODOLOGY OF THE QUALITATIVE TRIAL (TRIAL 1)

3.1 THE GENERAL OBJECTIVE OF THE FIRST FIELD TRIAL

The general objective of the first field trial is to evaluate the first integrated prototype of the SUCCESS app in terms of user experience (acceptance, reliability, performance) and its impact on caregiver satisfaction and burden and quality of life. As this trial intends to create a use context that is as realistic as possible, i.e. allow the users an experience grounded in their everyday life, the methodological interventions were intentionally kept at a minimum level.

3.2 SPECIFIC OBJECTIVES

The specific objectives of the qualitative trial are:

a) To understand the user experience, acceptance and satisfaction
b) To obtain feedback on the interaction with the avatar
c) To obtain feedback on the SUCCESS draft business models

d) To explore changes in care
e) To analyse frequency and patterns of use for the SUCCESS App
f) To test/pilot a set of quantitative instruments which will be used in the quantitative trial to assess the burden of care and quality of life for caregivers and the stage of disease and the behavioural problems of PwD

3.3 STUDY SETUP

3.3.1 DURATION

The qualitative trial is planned to take place between 21st /22nd of May and 29th /30th of June (for a total of six weeks).

3.3.2 PARTICIPANTS

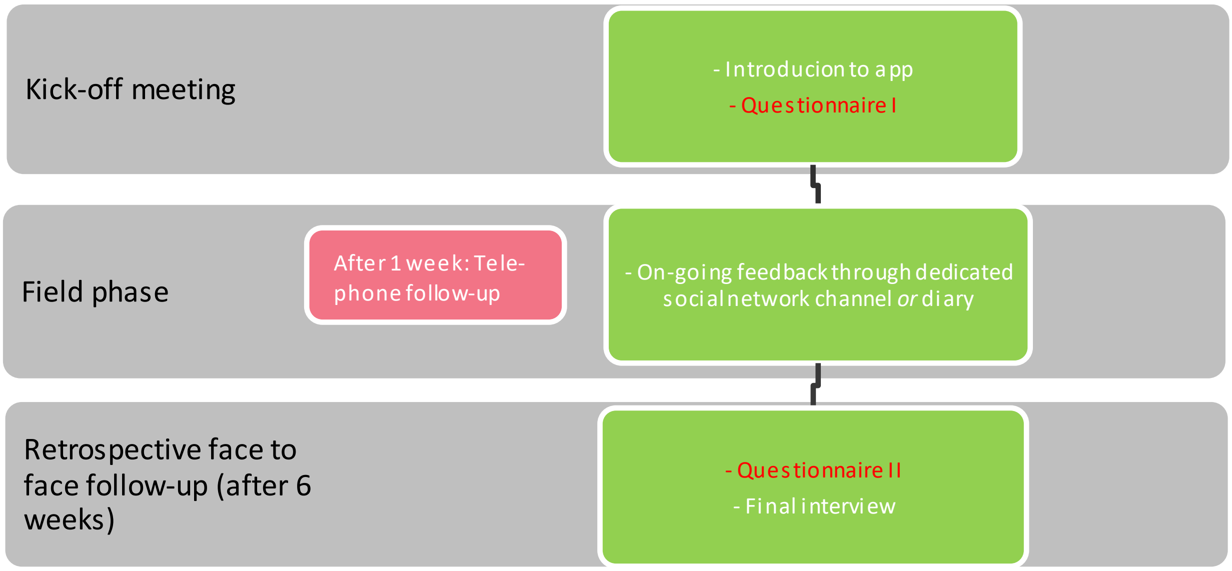
A total number of 16 caregivers and 20 PwD in two countries (i.e. Romania and Austria) will be involved in the trial. The caregiver category will include an opportunistically decided mix of formal and informal caregivers, of all genders and age groups (however, they should be at least 18 years old).

Involved **informal caregivers** are family members or relatives, who aid and supervise a person living with dementia, as for example the spouse, child, daughter-or son-in-law, parent or a friend.

Involved **formal caregivers** are people, who professionally care for a person living with dementia (as an occupation). Thus, they have some kind of medical background but are not necessarily trained to care for a PwD. Formal caregivers involved in the study may work, for example, in a care home, a hospital, day care center, or as professional caregiver in a PwD’s home.

3.3.3 DESIGN OF THE TRIAL

The trial will have three different stages, as follows:



3.3.4 VARIABLES OF INTEREST AND INSTRUMENTS TO BE USED

In this trial, we will collect socio-demographic data both for the caregiver and the person with dementia s/he cares for. In addition, for the carer we will also collect data on the usage of the app, both from the carers' perspective through interviews and through the SUCCESS app usage tracking data.

Furthermore, the qualitative field trial will serve as a test setting to evaluate some quantitative scales (e.g., Zarit scale, WHOQOL-BREF scale) for their usage during the second field trial (see section 4).

In the following, we provide an overview of data that will be collected during the trial:

- *Data about the carer (formal/informal)*
    - Socio-demographic data (gender, age, highest completed education, occupation, family status)
    - Background and care situation of formal/informal caregiver (e.g., experience in the field of dementia care)
    - User experience data
        - User acceptance and satisfaction
        - User experience: utility, accessibility, ease-of-use and joy-of-use
        - Feedback on interaction design
        - Feedback on service design
        - Feedback on the interaction with the avatar
    - Feedback on business models
    - Changes in care (e.g., in terms of interaction with the PwD)
- *System use patterns and frequency automatically collected through the app (usage tracking)*
    - Usage frequency and duration for the general app
    - Usage frequency and duration of each content type (articles, video, avatar lecture)
    - Usage frequency of the features (learn and train, emotional support, meaningful activities)
    - Time of day for usage of the features
    - Search history
    - Number of quick info selected in a situation

Qualitative methods to be used:

- Group discussion (kick-off workshop)
- Social media feedback channel (throughout the study)
- Narrative interviews (telephone call after one week)
- Semi-structured interview (individual interviews at the end of the study)

Quantitative instruments to be used

- Burden of care: Zarit scale (pre-test only) (see Appendix B)
- Quality of life: WHOQOL-BREF scale (pre-test only) (see Appendix B)

- Behavioural problems in Dementia: Revised Memory and Behaviour Problems Checklist (pre-test only) (see Appendix B)
- Stage of dementia: Quick Dementia Rating Scale (QDRS) (pre-test only) (see Appendix B)
- BIG Five Inventory (BFI-10) (Romania, Austria) (see Appendix B)
- User experience: Usability Metrix for User Experience (UMUX)(Romania only) (see Appendix B)

3.4 STUDY PROCEDURE

3.4.1 KICK-OFF MEETING

The kick-off meeting will gather all caregiver participants (eight per country) and will last max. 2 hours (see Table 2). The objectives of the meeting are:

- To provide information about the trial methods and options to give feedback (i.e., messages, photos, videos, speech messages via social networks if participants wish; could be WhatsApp, Skype, Telegram, Facebook Messenger, etc.),
- To obtain informed consents (see Appendix A),
- To provide information to the caregivers on how to use the app
- To collect socio-demographic data and to fill in the Zarit and WHOQOL-BREF questionnaires (see Appendix B),
- To answer questions of the participants
- To schedule the telephone call after one week with each participant.

Table 2: Agenda Kick-Off Meeting

Agenda Kick-Off Meeting	**Duration**
Reception of participants	10.30 – 11.00
Welcome; overview of the meeting agenda; introduction of participants	11.00 – 11.15
Information about the project, presentation of the scope, goals and methods of 1st field trial, ethical and data management aspects (discussion and informed consent)	11.15 – 11.30
Installation of the app; guided tour and trial of the features	11.30 – 12.00
Q&A session; information about option to give us feedback	12.00 – 12.10
Data collection (socio-demographic data, questionnaires)	12.10 – 12.25
Giving thanks, reimbursement, farewell	12.25 – 12.30
TOTAL	**2 h**

3.4.2 TELEPHONE FOLLOW-UP

The objective of the telephone follow-up is to obtain feedback on possible difficulties encountered while using the app and provide support where needed. Besides the “on the fly” telephone interview, there is no scheduled interaction with the participants during the field phase.

3.4.3 ON-GOING FEEDBACK

The objective of the ongoing feedback is to record difficulties encountered with using the SUCCESS app *in situ*. The participants will be able to use their preferred method (i.e., messages, photos, videos, speech messages) and social networks of choice (e.g., WhatsApp, Skype, Telegram, Facebook

Messenger, etc.) to get in contact with the SUCCESS research team. Allowing communication via habitual channels prohibits interference with their everyday life besides the usage of the SUCCESS app and minimizes methodological bias by distorting and interferences of new technology-supported communication channels.

3.4.4 FACE TO FACE FOLLOW-UP AFTER 6 WEEKS

At the end of the six-week trial period, one-hour individual interviews are planned with the 16 caregivers included in the trial. The objective of the semi-structured interviews is to obtain feedback about the use of the SUCCESS app in terms of user acceptance and satisfaction, user experience, interface design, service design, interaction with avatar and business models. In order to do so, we will use the semi-structured interview guide (see Appendix C).

3.4.5 INFORMED CONSENT

Article 17 of the Protocol to the Convention on Human Rights in Biomedicine or Biomedical Research states: “No research on a person may be carried out without the informed, free, express, specific and documented consent of the person”.

This places a legal obligation on observers to obtain and record consent from participants or their guardians on the basis of information that should be given to them before their participation begins. In the present project, all participants will be fully informed and asked in advance to state that they are fully aware of the experimental procedure, the potential risks or benefits and that their participation is completely voluntary by signing an informed consent form (see Appendix A).

Participants have the right to withdraw their consent at any time without penalty and without providing reason. Participants can also require that their data is withdrawn from the study and destroyed/deleted. There will be arrangements for safe and straightforward cessation of use by an individual who initially agreed to participate but later decides to withdraw from the study.

Informed consent forms will include all subsets of the following details:

- that the project involves research,
- overall purpose of the project,
- experimental procedure,
- potential risks and benefits,
- inclusion/exclusion criteria,
- the person to contact for further information regarding the project
- the rights of project subjects,
- whom to contact in the event of project related injury,
- planned usage of the data,
- possible commercial exploitation.

3.4.6 DATA ANALYSIS

The qualitative data gathered during the interviews will be analysed by means of a thematic analysis (e.g., using ATLAS.ti) in order to identify main issues and improvement suggestions reported by users as well as aspects of their general satisfaction when using the SUCCESS app.

Questionnaires will be statistically analysed by using SPSS software. However, the main purpose of quantitative data collection in the framework of the qualitative trial is the piloting of instruments.

All issues that come up during the study will be collected and documented in the issue tracking system to inform technical partners and to allow for adapting the prototype for the second field trial.

3.4.7 DATA MANAGEMENT

According to the EU data protection and privacy regulations, people have the right to protection of their privacy and personal data. The right to privacy entitles everyone to respect for his or her private and family life, home and communications. The right to data protection entitles everyone to the protection of personal data concerning him or her.

The users' personal data in SUCCESS is processed fairly for specified purposes and based on the consent of the person concerned or some other legitimate basis laid down by law. SUCCESS also guarantees that every participant has the right to access data, which has been collected concerning him or her, and the right to have it rectified. The right to privacy includes the right to control personal data. That is, the user must be aware of the data, the time period for which they are stored, and people who have access to the information. Further, the user has the right to object to the data processing.

3.4.8 ACCESS TO DATA

Within this study, only employees of the respective organization that conducts the study will have access to the raw data. These are employees of RAS in Romania and employees of AIT in Austria. It is stated explicitly that data will be transferred from one partner to another within the consortium only after it was made pseudonymous. That means AIT (and the rest of the SUCCESS consortium) will only get access to pseudonymized data from the study conducted in Romania and RAS (and the rest of the SUCCESS consortium) will only get access to pseudonymized data from the study conducted in Austria.

3.4.9 REIMBURSEMENT

Participants of the study will be given a reimbursement in the amount of 50 Euro in Austria for their time efforts in participating in the study.

3.4.10 MATERIAL NEEDED

- Agenda
- Signed agreement of the institution (care home, hospital, etc.)

- Informed Consent
- SUCCESS App installation file
- Interview guide
- Questionnaires
- Voice recorder (for the interview at the end; Smartphone, etc.)
- Reimbursement
- Reimbursement form

4. CONCEPT AND METHODOLOGY OF THE QUANTITATIVE TRIAL (TRIAL 2)

4.1 THE GENERAL OBJECTIVE OF THE SECOND FIELD TRIAL

The general objective of the second field trial is to evaluate the prototype of the SUCCESS app regarding its impact on relevant outcome indicators such as caregiver satisfaction, burden of care and the perceived behaviour of the person with dementia (PwD). Moreover, factors like the system's user experience, the extend of usage, as well as the relationship between the caregiver and the PwD should be investigated.

4.2 SPECIFIC OBJECTIVES

The specific objectives of the quantitative trial are:

a) To investigate the effects the app has on users (in terms of caregiver satisfaction, burden of care, …)
b) To evaluate:
    a. User interfaces
    b. Services
    c. Acceptance
    d. User Experience
c) To derive implications for improving the system and for future research

4.3 RESEARCH QUESTIONS

1. Does caregiver satisfaction with care activities improve during the period of use of the SUCCESS app?
2. Is the perceived burden of caregivers reduced during the period of use of the SUCCESS app?
3. Do caregivers' dementia-related knowledge and self-efficacy increase during the period of use of the SUCCESS app?
4. Do caregivers observe a reduction of behavioral problems of the PwD during the period of use of the SUCCESS app?
5. Does the relationship between caregiver and the PwD improve during the period of use of the SUCCESS app?
6. How do users perceive the app in terms of pragmatic and hedonic user experience? To what extend do users accept the SUCCESS app?
7. To what extent do socio-economic improvements at the individual level (e.g. gain of time for daily activities) and societal level (e.g. reduced care leave days within organizations) occur during the period of use of the SUCCESS app? What percentage of users would continue using and recommend the solution?

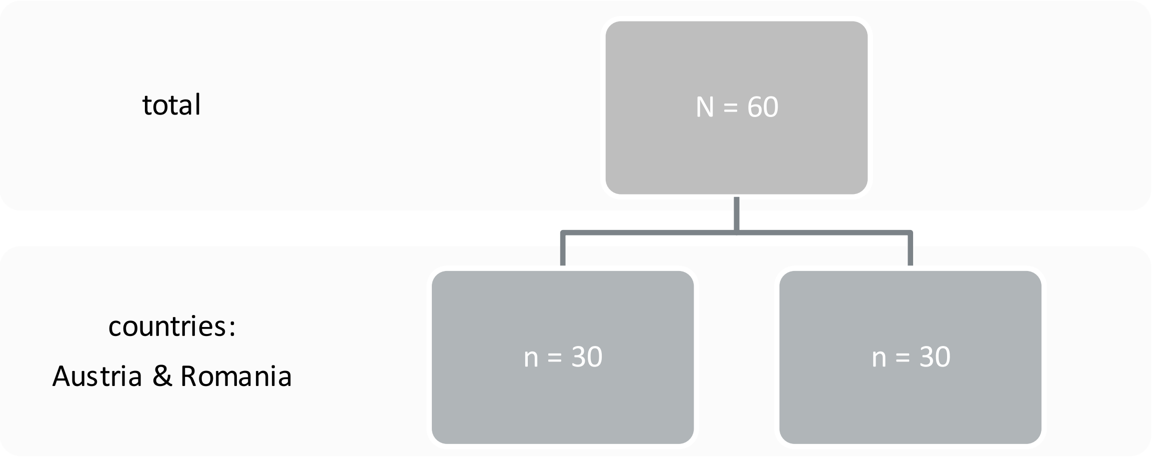
4.4 STUDY SETUP

4.4.1 DURATION

The quantitative trial is planned to take place between Mai and December (for a total of six months).

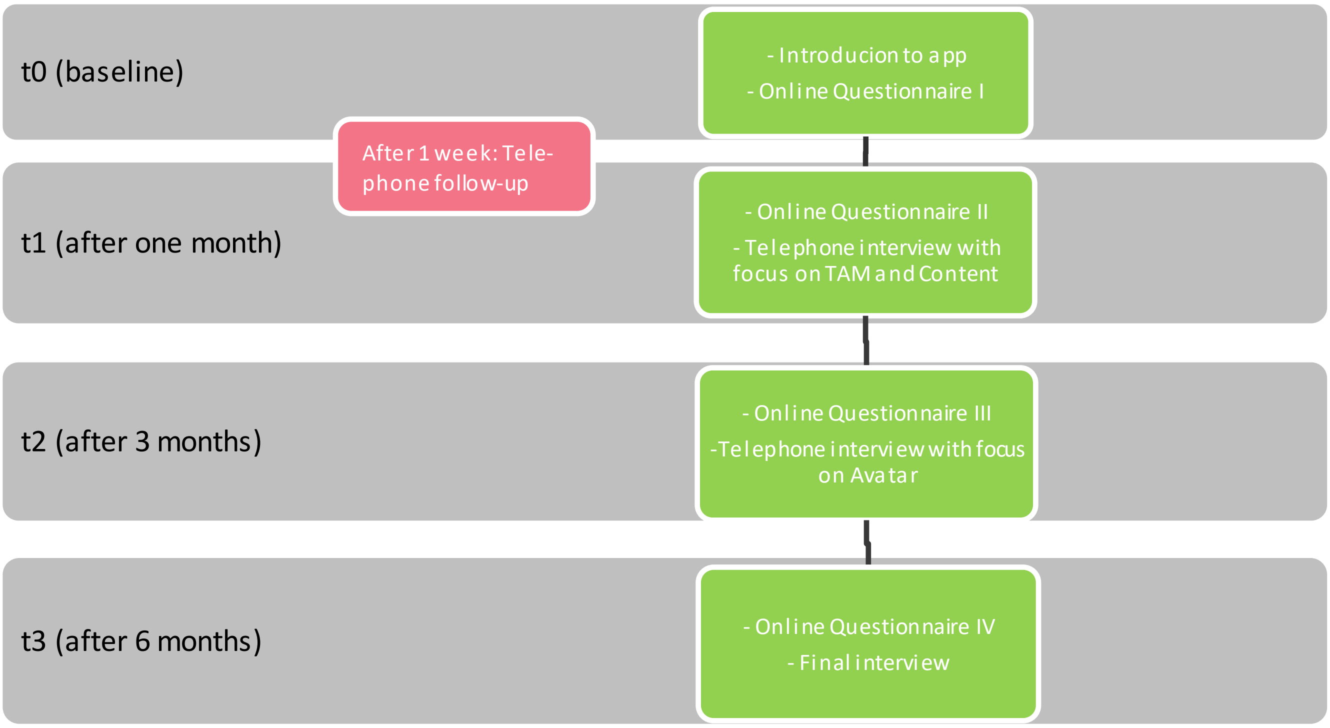
4.4.2 PARTICIPANTS

The sample consists of 60 caregivers in two countries. 30 participants per country – Romania and Austria – will take part in the trial.



4.4.3 DESIGN OF THE TRIAL

The trial will have four different stages, as follows:



4.4.4 VARIABLES OF INTEREST AND INSTRUMENTS TO BE USED

For this field trial, we will obtain socio-demographic data on both the caregiver and the person with dementia. Moreover, we will collect data on the extend of usage, the acceptance rate, and the appearance of the avatar. Data on caregiver satisfaction, the caring relationship, burden of care, time needed for daily activities, and the behavioural problems of the person with dementia will be sampled, too.

In the following, we provide an overview of data that will be collected during the trial:

- *Data about the caregiver*
    - Socio-demographic data (age, gender, social class, highest completed education, formal education on the topic of dementia, occupation, general health status)
    - Background and care situation of caregiver (e.g., experience in the field of dementia care)
    - User experience data
        - User acceptance and satisfaction
        - User experience: utility, accessibility, ease-of-use and joy-of-use
        - Feedback on interaction design
        - Feedback on service design
        - Feedback on the interaction with the avatar
    - Caregiver satisfaction and relationship
    - Burden of care
- *System use patterns and frequency automatically collected through the app (usage tracking)*
    - Usage frequency and duration for the general app
    - Usage frequency and duration of each content type (articles, video, avatar lecture)
    - Usage frequency of the features (learn and train, emotional support, meaningful activities)
    - Time of day for usage of the features
    - Search history
    - Number of quick info selected in a situation
- *Data about the person with dementia*
    - Socio-demographic data (age, gender, health services used)
    - Behavioural problems of PwD

Qualitative methods to be used:

- Semi-structured interviews (telephone call after one week, one month and three months and at the end of the field trial)
  The guidelines for the interviews are included to Appendix E of this document.

Quantitative instruments to be used:

Variables concerning the app:

Variable	Operationalization
Extend of usage	How often? How long? What categories? Log files

Perception of the SUCCESS app	User Experience Questionnaire adapted for SUCCESS (UEQ)
Perception of avatar	User Experience Questionnaire adapted for avatar (UEQ)
Acceptance rate	Technology Acceptance Model (TAM)
Perceived Impact of the app on the user's knowledge	Perceived Knowledge X App

Variables concerning the caregiver/PwD:

Construct	Operationalization
Self-Efficacy	Self-Efficacy
Knowledge	Knowledge Subscale
Competence	Global Assessment of Perceived Competence
Caregiver satisfaction & Relationship	Caregiver's Assessment of Satisfaction Index (CASI)
Burden of care	Zarit Burden of Care Scale
Behavioral problems of PwD	Neuropsychiatric Inventory (NPI)
Time needed for daily activities	Actual time spend on care activities
Big5; personality	IPIP (20)

Composition of questionnaires to be used:

Questionnaire	Scales
Questionnaire I	Socio-demographics, socio-demographics of PwD, care situation, time for care, NPI, Zarit, CASI, Self-Efficacy, knowledge

	subscale and global assessment
Questionnaire II	Time for care, TAM, UEQ, Self-Efficacy, knowledge subscale and global assessment, IPIP
Questionnaire III	Time for care, Zarit, CASI, Self-Efficacy, knowledge subscale and global assessment, UEQ and preference (avatar)
Questionnaire IV	Time for care, TAM, UEQ, NPI, Zarit, CASI, Self-Efficacy, knowledge subscale and global assessment, Perceived Knowledge X App

All scales applied in the 2nd field trial are included to Appendix D of this document.

4.5 STUDY PROCEDURE

4.5.1 BASELINE (T0)

At t0 participants are invited to kick-off workshops. During these 30- to 90-minute workshops, they are informed about the trial and the app is installed on their own smartphone or a device provided for use during the trial. Moreover, the participants sign the informed consent. The link to Questionnaire I (see section 4.4.4), implemented on LimeSurvey, is sent out.

The objectives of the measurements undertaken at t0 are:

- To provide information about the trial methods and options to give feedback (i.e., messages, photos, videos, speech messages via social networks if participants wish; could be WhatsApp, Skype, Telegram, Facebook Messenger, etc.)
- To obtain informed consents
- To provide information to the caregivers in terms of using the app
- To collect socio-demographic data
- To fill in NPI, Zarit, CASI, Self-Efficacy, knowledge subscale and global assessment questionnaires, and indicate how much time is needed for daily activities
- To answer questions of the participants
- To schedule the telephone call after one week with each participant
- To gain insight in the first impression of the SUCCESS app from participants

4.5.2 TELEPHONE FOLLOW-UP

Approximately one week after their respective kick-off workshop, participants are contacted (via mail or call). The objective of the telephone follow-up is to assure motivation, address possible issues encountered while using the app and provide support where needed and give participants an explicit opportunity to give feedback.

4.5.3 ON-GOING FEEDBACK

The objective of the ongoing feedback is to record difficulties encountered with using the SUCCESS app *in situ*. The participants will be able to use their preferred method (i.e., messages, photos, videos, speech messages) and social networks of choice (e.g., WhatsApp, Skype, Telegram, Facebook Messenger, etc.) to get in contact with the SUCCESS research team. Allowing communication via habitual channels prohibits interference with their everyday life besides the usage of the SUCCESS app and minimizes methodological bias by distorting and interferences of new technology-supported communication channels.

4.5.4 MEASUREMENT POINT T1 (AFTER ONE MONTH)

At this point, all participants are sent a link to Questionnaire II (see section 4.4.4), implemented on LimeSurvey. Further, a semi-structured telephone interview with focus on the TAM and the content of the app, is conducted (see Appendix E).

The objectives of the measurements undertaken at t1 are:

- To fill in IPIP, TAM, UEQ, Self-Efficacy, knowledge subscale and Global Assessment of Perceived Competence, and indicate how much time is needed for daily activities
- To gain a deeper understanding of and allow participants to elaborate on changes in their care situation, actual time needed for care activities, Perceived Usefulness and Perceived Ease of Use of the app and the quality and sufficiency of the content provided in the app
- Collect topics for the creation of additional content

4.5.5 MEASUREMENT POINT T2 (AFTER 3 MONTHS)

At this point, all participants are sent a link to Questionnaire IIIV (see section 4.4.4), implemented on LimeSurvey. Further, a semi-structured telephone interview with focus on the Avatar and the CASI, is conducted (see Appendix E).

The objectives of the measurements undertaken at t2 are:

- To fill in User Experience Questionnaire (Avatar), Self-Efficacy, Knowledge Subscale, Global Assessment of Perceived Competence, Caregiver's Assessment of Satisfaction Index, Zarit, and indicate how much time is needed for daily activities
- To gain a deeper understanding of and allow participants to elaborate on changes in caregiver satisfaction, relationship with the PwD and perception of the avatars
- Inform participants about content updates and ensure that the latest version of the app is installed

4.5.6 MEASUREMENT POINT T3 (AFTER 6 MONTHS)

At the end of the trial, the participants are asked to fill out Questionnaire IV (see section 4.4.4), implemented on LimeSurvey. Further, a semi-structured telephone interview with focus on the overall experience with the SUCCESS app and the socio-economic impact of the intervention, is conducted (see Appendix E).

The objectives of the measurements undertaken at t3 are:

- To fill in TAM, UEQ, Self-Efficacy, knowledge subscale, global assessment of perceived competence, Caregiver's Assessment of Satisfaction Index (CASI), NPI, Zarit, Perceived Impact of the app on the user's knowledge and indicate how much time is needed for daily activities
- To gain a deeper understanding of and allow participants to elaborate on their experience with the SUCCESS app, its perceived usefulness, changes related to the care routine and activities as well as on economic aspects
- To debrief the study participants

4.5.7 INFORMED CONSENT

Article 17 of the Protocol to the Convention on Human Rights in Biomedicine or Biomedical Research states: “No research on a person may be carried out without the informed, free, express, specific and documented consent of the person”.

This places a legal obligation on observers to obtain and record consent from participants or their guardians on the basis of information that should be given to them before their participation begins. In the present project, all participants will be fully informed and asked in advance to state that they are fully aware of the experimental procedure, the potential risks or benefits and that their participation is completely voluntary by signing an informed consent form (see Appendix A).

Participants have the right to withdraw their consent at any time without penalty and without providing reason. Participants can also require that their data is withdrawn from the study and destroyed/deleted. There will be arrangements for safe and straightforward cessation of use by an individual who initially agreed to participate but later decides to withdraw from the study.

Informed consent forms will include all subsets of the following details:

- that the project involves research,
- overall purpose of the project,
- experimental procedure,
- potential risks and benefits,
- inclusion/exclusion criteria,
- the person to contact for further information regarding the project
- the rights of project subjects,
- whom to contact in the event of project related injury,
- planned usage of the data,

- possible commercial exploitation.

4.5.8 DATA ANALYSIS

The quantitative data will be statistically analyzed by using SPSS software. Hereby, it is likely to analyze the data with a mixed ANOVA.

The data collected with the semi-structured interviews will be analyzed by means of a thematic analysis (e.g. usinig ATLAS.ti). This helps in identifying main issues and suggestions for the improvement of the app. Moreover, it allows to develop an understanding of the general satisfaction of the users of the SUCCESS app.

Issues regarding the usage of the SUCCESS app during the 2nd field trial will be collected and documented. This allows further adaption of the prototype.

4.5.9 DATA MANAGEMENT

According to the EU data protection and privacy regulations, people have the right to protection of their privacy and personal data. The right to privacy entitles everyone to respect for his or her private and family life, home and communications. The right to data protection entitles everyone to the protection of personal data concerning him or her.

The users' personal data in SUCCESS is processed fairly for specified purposes and based on the consent of the person concerned or some other legitimate basis laid down by law. SUCCESS also guarantees that every participant has the right to access data, which has been collected concerning him or her, and the right to have it rectified. The right to privacy includes the right to control personal data. That is, the user must be aware of the data, the time period for which they are stored, and people who have access to the information. Further, the user has the right to object to the data processing.

4.5.10 ACCESS TO DATA

Within this study, only employees of the respective organization that conducts the study will have access to the raw data. These are employees of RAS in Romania and employees of AIT in Austria. It is stated explicitly that data will be transferred from one partner to another within the consortium only after it was made pseudonymous. That means AIT (and the rest of the SUCCESS consortium) will only get access to pseudonymized data from the study conducted in Romania and RAS (and the rest of the SUCCESS consortium) will only get access to pseudonymized data from the study conducted in Austria.

4.5.11 REIMBURSEMENT

Participants of the study will be given a reimbursement in the amount of 50 Euro in Austria for their time efforts in participating in the study.

4.5.12 MATERIAL NEEDED

- Agenda
- Informed Consent
- SUCCESS App installation file
- Interview guide
- Questionnaires
- Voice recorder (for the interviews; Smartphone, etc.)
- Back-up Smartphones

APPENDIX A: INFORMED CONSENT

A.1. INFORMED CONSENT (ENGLISH)

1. INTRODUCTION

The study described below is part of the research project SUccessful Caregiver Communication and Everyday Situation Support in dementia care (SUCCESS). This project receives funding as part of the funding programme AAL. You have been invited to participate in this study. Before you agree to participate in this study, please read all information carefully and do not hesitate to ask if you have any questions regarding the study or the potential benefits and risks involved.

2. GOAL OF THE RESEARCH PROJECT

The general objective of the study (a qualitative field trial) is to test the first integrated prototype of the SUCCESS app in terms of user experience (acceptance, reliability, performance) and its impact on caregiver satisfaction and burden and quality of life.

By participating in this study and providing feedback you actively contribute to improvement of the SUCCESS app. Your feedback will be used to improve and optimise the features of the SUCCESS app.

3. CONDITIONS OF PARTICIPATION

Participation in this scientific study is voluntary. You may withdraw or stop your participation at any time without incurring legal or other consequences. Once you have decided to withdraw from the study and have notified the study leader of your decision, your data will not be used in any subsequent phases of the project. It will not, however, be possible to alter any documents containing your data which have already been published or project reports prepared for the funding provider.

4. TARGET GROUP

The persons participating in this study are carers of persons with dementia, who have a caring experience of at least one year and own (and use) an android smart phone that can support the SUCCESS app.

5. PROCEDURE

Place: Bucharest and Vienna

Duration of study: 6 weeks (21/22 May – 29/30 June)

Description of study task(s):

The trial will have four different stages, as follows:

1. Kick off meeting
2. Telephone follow-up after 1 week
3. On-going feedback through dedicated social network channel OR diary
4. Face to face follow-up after 6 weeks:

You will receive [EUR […] in compensation for participation after signing Annex./1 and following confirmation by the project manager of the study.] / You will receive no compensation for participation.

6. POTENTIAL RISKS

You do not incur any risk by participating in this study.

7. CONFIDENTIALITY

All personal details and data will be kept strictly confidential and anonymous. The data collected by us will not be able to be used to track your identity at a later date. The information gathered as part of this study will be published in reports on the research project or in scientific papers in the form of statistical evaluations or scenarios without including any personal details. The SUCCESS team will pseudonymise/encrypt/anonymise or otherwise secure any type of personal data used for scientific purposes, as required, so that your name or other personal data cannot be identified by third parties. The personal data provided by you on a voluntary basis will be stored in such a way that only the SUCCESS team has access to them. Personal data will not be disclosed to third parties without your express consent.

8. CONTACT

If you require further information about your rights as a study participant or the study itself, or if you have further questions or wish to abort the study, please contact […]

9. CONSENT

I have read and understood the Declaration of Consent.

I hereby give AIT permission to use the data (i.e. demographic data, questionnaires and opinions presented in recorded interviews or otherwise) obtained by means of research activities conducted in the framework of SUCCESS first field trial. I furthermore agree that these data are processed for purposes of analysis and used for obtaining results for the SUCCESS study and project.

I will receive [EUR …] in compensation for participation in the study / I will receive no compensation for participation in the study.

I hereby declare that I have been fully compensated for my activities and for any rights of use granted and warrant that I will not make any further claims against AIT, [….] or third parties.

I, the undersigned, hereby declare that at the time of signing this Declaration of Consent,

- ☐ I am of full age and legal capacity.
- ☐ I am not of full age and/or legal capacity [requires additional signature by legal guardian]

Amendments and modifications to this Declaration of Consent shall be made in writing to be valid. This shall also apply to any waiver of the written form requirement.

This agreement is governed by the laws of the …….. to the exclusion of the conflict of laws rules. The exclusive place of jurisdiction shall be Vienna.

Date / Place

____

Signature

____

[FULL NAME IN BLOCK LETTERS]

I hereby agree to the participation and use of data as stated above in my capacity as legal guardian

Date / Place

____

Signature

____

[FULL NAME IN BLOCK LETTERS]

A.2. DATA PRIVACY INFORMATION AND DECLARATION OF CONSENT (ENGLISH)

10. Introduction

The study described below is part of a research project “SUCCESS”. This project receives funding from the Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft FFG) as part of the funding programme AAL Joint Programme. Under the coordination of the AIT Austrian Institute of Technology, companies from Austria, Cyprus, Romania, Norway and Canada are working together on this project. You have been invited to participate in this study. Before you agree to participate in this study, please read all the information provided carefully and do not hesitate to ask if you have any questions regarding the study or the potential benefits and risks involved.

11. Target group and conditions of participation

Test subjects must meet the following criteria to take part in this study:

- Informal caregivers and relatives of people with dementia

- Formal caregivers of people with dementia

Participation in this scientific study is voluntary.

12. Procedure

Within the project, a prototype was developed, which aims to provide you with basic insights into the functions and operation of the app. The aim of this study is to evaluate this prototype with you and thus gain insights for the further development of the app. The study covers a period of six months and starts on XX XX, 2019 with a XX Minute kick-off event at XXX. During this meeting you will receive a brief introduction to the SUCCESS project, the prototype of the app will be installed on your smartphone (or you will receive a borrowed device) and you will be instructed how to use the app. In addition, you will be asked a few questions about yourself and your general life situation, as well as your feelings and experiences as a caregiver. You will have the opportunity to discuss things that may be unclear to you. Then you can use the app on your smartphone or a borrowed device for six months at any time and as often as you like. We would appreciate it if you would give us feedback or ask questions throughout the entire period (contact details will be provided at the kick-off event). One week later you will be called by us to answer open questions. At one month and 3 months after the kick-off meeting we will call you for a 15-minute phone call, during which we ask you to tell us about your personal experience with using the app. For this conversation, stay in a quiet place of your choice where you can make good phone calls. You will also be send a questionnaire and asked to complete it on your smartphone. You have 3 days to complete the questionnaire and can decide when you want to complete it. Six months after the kick-off meeting the study ends with a 1-hour final interview at a location agreed with you beforehand, at which we will ask you about your experiences with the app in order to gain insights for the further development of the app.

We would like to point out that you cannot do anything wrong. The point is not to measure your performance, but to gain an insight into your impressions when using the app. Your opinion is important to improve future development. Please note that this is a prototype and some issues may occur.

13. Potential risks

You do not incur any risk by participating in this study. Please note that the SUCCESS app you are testing is not a market-ready product and that the content offered does not replace professional advice from care experts or doctors. Therefore, we ask you to reflect on the help and tips offered in the App and only use them on your own responsibility if they seem appropriate for your current care situation.

14. Purpose of processing your personal data

The provision of care for people with dementia poses great challenges for caregivers. In many cases, the changed communication skills and behaviour of the persons affected overwhelm the caregivers. The consequences are stress, a feeling of helplessness and even burnout.

The solution developed within the SUCCESS project provides formal and informal caregivers of people with dementia with a simple smartphone app that supports them in coping with these everyday challenges. By conveying relevant knowledge through training sessions and role plays, caregivers can consciously explore communication and interaction with people with dementia. SUCCESS enables them to react correctly in specific situations and to learn how to deal with their own feelings. In addition to the training, the app offers immediate help and advice in concrete situations.

By participating in this study and providing feedback, you actively contribute to adapting the smartphone application specifically to the needs and requirements of caregivers, thus ensuring usability and usefulness.

The information gathered as part of this study will be published in reports on the research project or in scientific papers in the form of statistical evaluations or scenarios without including any personal details. It will not be possible to track your identity from reports or papers at a later date.

Your personal data will only be processed as part of this research project if you give your express consent.

After completion of the research project your data will be preserved for the purpose of proving compliance with the guidelines for good scientific practice. AIT may also process your data for other scientific research purposes relating to SUCCESS if these are not aimed at producing person-related results.

15. Processed data

The following data will be collected:

- Demographic data (e.g. name, age, gender)
- Contact information (e.g. address, telephone number, email)
- Feelings and experiences as a caregiver
- Data on App usage

The study will be documented by video recordings and audio recordings for the purpose of analysis. Any video and audio material recorded will be anonymised or deleted at the end of the project.

16. Data storage period

After completion of the research project your personal data will be retained for as long as necessary to provide evidence of compliance with good scientific practice in accordance with the relevant guidelines. Research data must currently[1] be retained for a period of ten years. If this period changes in the future your data will be stored for a correspondingly shorter or longer period of time.

17. Recipients of your personal data

Only AIT Austrian Institute of Technology GmbH has access to your personal data. Your data will not be disclosed or transferred to other recipients without your consent.

18. Your rights and contacts

You are entitled:

- to request information about your processed data;
- to ask for incorrect data to be corrected or deleted or
- to contact the Data Protection Authority in cases of suspected violation of the data protection provisions.

You are also entitled:

- **to withdraw your consent at any time** and
- **to object to the processing of your data.**

You may withdraw you consent at any time (including during the study) without any consequences. Once you inform us that you withdraw your consent, your data will not be used in the subsequent

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[1] as of 10/2017.

phases of the research project. Please note that documents already published documents, project reports prepared for the funding provider or project results obtained using your data before you withdrew your consent cannot be altered. Please also note that your data may have to be further processed to prove compliance with the guidelines of good scientific practice.

If you require further information about your rights as a test subject or the study itself, or if you have further questions, or wish to exercise your rights or abort the study, please contact

Markus Garschall
+43 50550 4534
markus.garschall@ait.ac.at

The following organisation is responsible for processing:

AIT Austrian Institute of Technology GmbH
Giefinggasse 4
1210 Vienna

office@ait.ac.at
+43 50550-0

The contact details of the Data Protection Officer are:

dpo@ait.ac.at
+43 50550-2003

19. Declaration of Consent according to data protection law

I have read and understood the Declaration of Consent.

By signing this declaration I agree that AIT Austrian Institute of Technology GmbH (hereinafter “AIT”) may process my personal data of the categories listed in section 6 for the purpose(s) specified in section 14.

☐ I hereby agree that AIT may use photos, audio recordings, video material, or parts thereof, for marketing, advertising and public relations for the research project and may publish these materials to achieve the above purposes.

☐ I hereby agree that AIT may include my name, my address, my telephone and fax number, my email address and my technological interests in a database of test subjects in order to be able to contact me by post, email or phone to invite me to participate in future scientific studies.

I, the undersigned, hereby declare that at the time of signing this Declaration of Consent,

- ☐ I am of full age and legal capacity.
- ☐ I am not of full age and/or legal capacity. I therefore require the consent of my legal representative to be able to participate in the study.

I have received a copy of the Data Privacy Information and Declaration of Consent.

I understand that I may withdraw my consent in whole or in part at any time by giving notice to the contact address specified in section 9.

____

FIRST NAME AND LAST NAME IN BLOCK LETTERS

____

Date, place and signature

APPENDIX B: SCALES TRIAL 1

A.1. DEMOGRAPHIC DATA (ENGLISH)

Please answer the following questions about yourself. Once again, we would like to point out that all data collected within the scope of these studies are treated anonymously and confidentially.

Age	Month of birth / year of birth: ______ / _______
Gender	female ○ male ○ no answer ○
Highest completed Education	
○	Elementary school
○	Professional School / Apprenticeship
○	General qualification for university entrance
○	University
○	Others: ______________________________________

Family Status (multiple choice)	
☐	single
☐	married
☐	living in a partnership
☐	widowed
☐	divorced
Occupation	
○	full-time employed
○	part-time employed
○	on maternity leave / leave of absence
○	in-service training
○	unemployed (including students, who are not working, people, who are retired or early retired)
Relationship with PwD	
Main carer of the PwD	Yes ○ No ○
Live in the same house as the PwD	Yes ○ No ○
Age PwD	Month of birth / year of birth: ______ / _______
Gender PwD	female ○ male ○ no answer ○
Year of diagnostic	
MMSE score	

A.2. ZARIT CAREGIVER BURDEN SCALE (ENGLISH)

The next set of questions asks about how often certain situations arise as a result of any emotional support or physical assistance that you provide to the person you are caring for.

	Never	**Rarely**	**Sometimes**	**Quite Frequently**	**Nearly Always**
1. How often do you feel that [he/she] asks for more help than [he/she] needs?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
2. How often do you feel that because of the time you spend with [him/her] that you don't have enough time for yourself?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
3. How often do you feel stressed between caring for [him/her] and trying to meet other responsibilities for your family or work?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
4. How often do you feel embarrassed over [his/her] behavior?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
5. How often do you feel angry when you are around [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
6. How often do you feel that [he/she] currently affects your relationships with other family members or friends in a negative way?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
7. How often are you afraid of what the future holds for [him/ her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
8. How often do you feel [he/she] is dependent on you?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
9. How often do you feel strained when you are around [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
10. How often do you feel your health has suffered because of your involvement with [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐

11. How often do you feel that you don't have as much privacy as you would like because of [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
12. How often do you feel that your social life has suffered because you are caring for [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
13. How often do you feel uncomfortable about having friends over because of [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
14. How often do you feel that [he/she] seems to expect you to take care of [him/her] as if you were the only one [he/she] could depend on?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
15. How often do you feel that you don't have enough money to take care of [him/her] in addition to the rest of your expenses?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
16. How often do you feel that you will be unable to take care of [him/her] much longer?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
17. How often do you feel you have lost control of your life since [his/her] illness?	0 ☐	1 ☐	2 ☐	3 ☐	☐
18. How often do you wish you could leave the care of [him/her] to someone else?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
19. How often do you feel uncertain about what to do about [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
20. How often do you feel you should be doing more for [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
21. How often do you feel you could be doing a better job in caring for [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐
22. Overall, how often do you feel burdened in caring for [him/her]?	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐

Remark: This scale is included to this document for project documentation purposes. Usage for other purposes is subject to the terms of the instrument owners.

A.3. WHOQOL-BREF (ENGLISH)

Please read each question, assess your feelings, and circle the number on the scale that gives the best answer for you for each question.

	(Please circle the number)				
	Very poor	**Poor**	**Neither poor nor good**	**Good**	**Very Good**
1. How would you rate your quality of life?	**1**	**2**	**3**	**4**	**5**

	(Please circle the number)				
	Very dissatisfied	**Dissatisfied**	**Neither satisfied nor dissatisfied**	**Satisfied**	**Very satisfied**
2. How satisfied are you with your health?	**1**	**2**	**3**	**4**	**5**

The following questions ask about **how much** you have experienced certain things in the last two weeks.

	(Please circle the number)				
	Not at all	**A little**	**A moderate amount**	**Very much**	**An extreme amount**
3. To what extent do you feel that physical pain prevents you from doing what you need to do?	**1**	**2**	**3**	**4**	**5**
4. How much do you need any medical treatment to function in your daily life?	**1**	**2**	**3**	**4**	**5**
5. How much do you enjoy life?	**1**	**2**	**3**	**4**	**5**
6. To what extent do you feel your life to be meaningful?	**1**	**2**	**3**	**4**	**5**

	(Please circle the number)				
	Not at all	**Slightly**	**A Moderate amount**	**Very much**	**Extremely**
7. How well are you able to concentrate?	**1**	**2**	**3**	**4**	**5**
8. How safe do you feel in your daily life?	**1**	**2**	**3**	**4**	**5**
9. How healthy is your physical environment?	**1**	**2**	**3**	**4**	**5**

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

	(Please circle the number)				
	Not at all	**A little**	**Moderately**	**Mostly**	**Completely**
10. Do you have enough energy for everyday life?	**1**	**2**	**3**	**4**	**5**
11. Are you able to accept your bodily appearance?	**1**	**2**	**3**	**4**	**5**
12. Have you enough money to meet your needs?	**1**	**2**	**3**	**4**	**5**
13. How available to you is the information that you need in your day-to-day life?	**1**	**2**	**3**	**4**	**5**
14. To what extent do you have the opportunity for leisure activities?	**1**	**2**	**3**	**4**	**5**

	(Please circle the number)				
	Very poor	**Poor**	**Neither poor nor well**	**Well**	**Very well**
15. How well are you able to get around?	**1**	**2**	**3**	**4**	**5**

The following questions ask you to say how **good** or **satisfied** you have felt about various aspects of your life over the last two weeks.

	(Please circle the number)				
	Very dissatisfied	**Dissatisfied**	**Neither satisfied nor dissatisfied**	**Satisfied**	**Very satisfied**
16. How satisfied are you with your sleep?	**1**	**2**	**3**	**4**	**5**
17. How satisfied are you with your ability to perform your daily living activities?	**1**	**2**	**3**	**4**	**5**
18. How satisfied are you with your capacity for work?	**1**	**2**	**3**	**4**	**5**
19. How satisfied are you with your abilities?	**1**	**2**	**3**	**4**	**5**
20. How satisfied are you with your personal relationships?	**1**	**2**	**3**	**4**	**5**
21. How satisfied are you with your sex life?	**1**	**2**	**3**	**4**	**5**
22. How satisfied are you with the support you get from your friends?	**1**	**2**	**3**	**4**	**5**
23. How satisfied are you with the conditions of your living place?	**1**	**2**	**3**	**4**	**5**
24. How satisfied are you with your access to health services?	**1**	**2**	**3**	**4**	**5**
25. How satisfied are you with your mode of transportation?	**1**	**2**	**3**	**4**	**5**

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

	(Please circle the number)				
	Never	**Seldom**	**Quite often**	**Very often**	**Always**
26. How often do you have negative feelings, such as blue mood, despair, anxiety, depression?	**1**	**2**	**3**	**4**	**5**

Did someone help you to fill out this form? *(Please circle Yes or No)*	Yes	No

Remark: This scale is included to this document for project documentation purposes. Usage for other purposes is subject to the terms of the instrument owners.

A.4. REVISED MEMORY AND BEHAVIOUR PROBLEMS CHECKLIST (GERMAN)

Nachfolgend finden Sie eine Liste mit Verhaltensweisen, die Ihre zu pflegende Person zeigen könnte. Bitte geben Sie an, wie häufig diese Verhaltensweisen in der vergangenen Woche bei Ihrer zu pflegenden Person aufgetreten sind. Wenn diese Verhaltensweisen aufgetreten sind, wie belastend oder ärgerlich war das für Sie? Verwenden Sie die folgenden Skalen, um die Häufigkeit der Verhaltensweise und Ihre Reaktion darauf einzuschätzen. Bitte lesen Sie die Beschreibung der Bewertungen sorgfältig durch.												
Bitte beantworten Sie alle folgenden Fragen in Bezug auf die Häufigkeit des Verhaltens <u>und</u> Ihre Reaktion.												
Verhaltensweise	**Häufigkeit**						**Einschätzung Ihrer Reaktion**					
	0 = nie aufgetreten	1 = nicht in der vergangenen Woche	2 = 1 – 2 mal in der vergangenen Woche	3 = 3 – 6 mal in der vergangenen Woche	4 = täglich oder öfter	9 = ich weiß nicht / nicht anwendbar	0 = überhaupt nicht	1 = ein bisschen	2 = mittelmäßig	3 = sehr stark	4 = äußerst stark	9 = ich weiß nicht / nicht anwendbar
…stellt immer wieder dieselbe Frage.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…hat Schwierigkeiten, sich an kürzlich Geschehenes zu erinnern (z.B. Beiträge in	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

Zeitung und Fernsehen).												
…hat Schwierigkeiten, sich an wichtige vergangene Ereignisse zu erinnern.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…verliert oder verlegt Dinge.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…vergisst, welcher Tag heute ist.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
Verhaltensweise	**Häufigkeit**						**Reaktion**					
	0 = nie aufgetreten	1 = nicht in der vergangenen Woche	2 = 1 – 2 mal in der vergangenen Woche	3 = 3 – 6 mal in der vergangenen Woche	4 = täglich oder öfter	9 = ich weiß nicht / nicht anwendbar	0 = überhaupt nicht	1 = ein bisschen	2 = mittelmäßig	3 = sehr stark	4 = äußerst stark	9 = ich weiß nicht / nicht anwendbar
…beginnt Tätigkeiten, führt sie aber nicht zu Ende.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

…hat Schwierigkeiten sich auf eine Aufgabe zu konzentrieren.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…zerstört Eigentum.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…tut Dinge, die für Sie beschämend sind.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…weckt Sie oder andere Familienmitglieder in der Nacht auf.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…spricht sehr laut und schnell.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…erscheint ängstlich oder besorgt.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…verfolgt Aktivitäten, die für die Person selbst und andere gefährlich sind.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…droht damit sich selbst zu verletzen.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

…droht damit andere zu verletzen.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
Verhaltensweise	**Häufigkeit**						**Reaktion**					
	0 = nie aufgetreten	1 = nicht in der vergangenen Woche	2 = 1 – 2 mal in der vergangenen Woche	3 = 3 – 6 mal in der vergangenen Woche	4 = täglich oder öfter	9 = ich weiß nicht / nicht anwendbar	0 = überhaupt nicht	1 = ein bisschen	2 = mittelmäßig	3 = sehr stark	4 = äußerst stark	9 = ich weiß nicht / nicht anwendbar
…ist anderen gegenüber verbal aggressiv	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…erscheint traurig oder depressiv.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…äußert Gefühle der Hoffnungslosigkeit und Trauer in Bezug auf die Zukunft (z.B. „Es passiert nie etwas Gutes.“, „Ich mache nie etwas richtig.“)	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…weint oder ist den Tränen nah.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

…äußert sich über den eigenen Tod oder den anderer (z.B. „Das Leben ist nicht lebenswert.“, „Wenn ich tot wäre, wäre ich besser dran.“)	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…spricht darüber, dass sie / er sich einsam fühlt.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
…spricht darüber, dass sie / er sich wertlos oder als eine Last für andere fühlt.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐
Verhaltensweise	**Häufigkeit**						**Reaktion**					
	0 = nie aufgetreten	1 = nicht in der vergangenen Woche	2 = 1 – 2 mal in der vergangenen Woche	3 = 3 – 6 mal in der vergangenen Woche	4 = täglich oder öfter	9 = ich weiß nicht / nicht anwendbar	0 = überhaupt nicht	1 = ein bisschen	2 = mittelmäßig	3 = sehr stark	4 = äußerst stark	9 = ich weiß nicht / nicht anwendbar
…spricht darüber, dass sie / er sich als	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

Versagerin / Versager fühlt oder dass sie / er nichts Erstrebenswertes in ihrem / seinem Leben erreicht hat.												
…diskutiert, ist reizbar, beschwert sich.	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐	0 ☐	1 ☐	2 ☐	3 ☐	4 ☐	9 ☐

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A.5. QUICK DEMENTIA RATING SCALE (QDRS) (GERMAN)

Die folgenden Beschreibungen charakterisieren Veränderungen der kognitiven und funktionellen Fähigkeiten der Person mit Demenz. Sie werden nun gebeten, die Person wie sie jetzt ist mit dem zu vergleichen, wie Die Person früher war - das Hauptmerkmal ist die Veränderung. Wählen Sie eine Antwort für jede Kategorie, die am besten zur Person mit Demenz passt – HINWEIS, nicht alle Beschreibungen müssen vorhanden sein, um eine Antwort auszuwählen.	
1. GEDÄCHTNIS UND ERINNERUNG	
☐	Kein offensichtlicher Gedächtnisverlust oder schwankende Vergesslichkeit, die das Ausüben alltäglicher Aktivitäten nicht beeinträchtigt
☐	Beständige leichte Vergesslichkeit oder nur teilweise Erinnerung an Ereignisse, die die Alltagsaktivitäten stören können; wiederholt Fragen/Aussagen, verlegt Gegenstände, vergisst Termine
☐	Milder bis mäßiger Gedächtnisverlust; auffälliger bei kürzlich stattgefundenen Ereignissen; beeinträchtigt die Alltagsaktivitäten
☐	Mäßiger bis schwerer Gedächtnisverlust; nur sehr gut erlernte Informationen gespeichert; neue Informationen schnell vergessen
☐	Schwerer Gedächtnisverlust, fast unmöglich, neue Informationen zu behalten; Langzeitgedächtnis kann beeinträchtigt sein.
2. ORIENTIERUNG	
☐	Vollständig orientiert hinsichtlich Person, Ort und Zeit, fast jederzeit.
☐	Leichte Schwierigkeiten bei der Zeiterfassung; vergisst den Tag oder das Datum möglicherweise häufiger als in der Vergangenheit.
☐	Leichte bis mäßige Schwierigkeiten, die Zeit und Abfolge von Ereignissen zu verfolgen; vergisst Monat oder Jahr; orientiert sich an vertrauten Orten, wird aber außerhalb vertrauter Gebiete verwirrt; geht verloren oder wandert umher
☐	Mittlere bis starke Schwierigkeiten, meist desorientiert bezüglich Zeit und Ort (vertraute und unbekannte); Verweilt häufig in der Vergangenheit
☐	Nur an ihrem Namen orientiert, kann möglicherweise jedoch Familienmitglieder erkennen.
3. ENTSCHEIDUNGS- UND PROBLEMLÖSUNGSFÄHIGKEITEN	

☐	Löst Alltagsprobleme ohne Schwierigkeiten; regelt persönliche geschäftliche und finanzielle Angelegenheiten gut; Entscheidungsfähigkeit gleich mit der bisherigen Leistung
☐	Leichte Beeinträchtigung oder längere Zeit zur Problemlösung benötigt; Probleme mit abstrakten Konzepten; Entscheidungen noch fundiert
☐	Mäßige Schwierigkeiten beim Umgang mit Problemen und beim Treffen von Entscheidungen; verschiebt viele Entscheidungen auf andere; soziales Urteilsvermögen und Verhalten können leicht beeinträchtigt sein; Verlust der Einsichtigkeit
☐	Schwer beeinträchtigt im Umgang mit Problemen, trifft nur einfache persönliche Entscheidungen; soziales Urteilsvermögen und Verhalten oft beeinträchtigt; Fehlende Einsichtigkeit
☐	Unfähig, Entscheidungen zu treffen oder Probleme zu lösen; andere treffen fast alle Entscheidungen für den Patienten.
4. AKTIVITÄTEN AUSERHALB DES HAUSES	
☐	Unabhängig in ihrer Tätigkeit auf dem üblichen Leistungsniveau in Beruf, Einkaufen, Gemeinde- und religiösen Aktivitäten, Freiwilligenarbeit oder sozialen Gruppen
☐	Leichte Beeinträchtigung dieser Tätigkeiten im Vergleich zu früheren Leistungen; leichte Veränderung der Fahrfähigkeiten; noch in der Lage, Notfallsituationen zu bewältigen
☐	Unfähig, selbständig zu arbeiten, aber dennoch anwesend und engagiert; erscheint anderen als "normal"; bemerkbare Veränderungen der Fahrfähigkeiten; Sorge um die Fähigkeit, Notfallsituationen zu bewältigen
☐	Kein Anschein eines unabhängigen Handelns außerhalb des Hauses; scheint fit genug zu sein, um zu Aktivitäten außerhalb des Hauses genommen zu werden, muss aber im Allgemeinen begleitet werden
☐	Keine unabhängige Tätigkeiten oder Aktivitäten; erscheint zu krank, um zu Aktivitäten außerhalb des Hauses genommen zu werden.
5. FUNKTION ZU HAUSE UND HOBBY- AKTIVITÄTEN	
☐	Aufgaben zu Hause, Hobbys und persönliche Interessen werden im Vergleich zur bisherigen Leistung gut gepflegt.
☐	Geringfügige Beeinträchtigung oder geringeres Interesse an diesen Aktivitäten; Schwierigkeiten beim Bedienen von Geräten (insbesondere Neuanschaffungen)

☐	Leichte, aber definitive Beeinträchtigung der Heim- und Hobbytätigkeit; schwierigere Tätigkeiten oder Aufgaben vernachlässigt; kompliziertere Hobbys und Interessen aufgegeben
☐	Nur einfache Tätigkeiten erhalten, sehr eingeschränktes Interesse an Hobbys, die auch nur schlecht gepflegt werden.
☐	Keine bedeutungsvolle Betätigung im Haushalt oder bei früheren Hobbys
6. TOILETTENGANG UND PERSÖNLICHE HYGEINE	
☐	Volle Selbstpflegefähigkeit (" Ankleiden, Frisieren, Waschen, Baden, Toilettengang)
☐	Leichte Veränderungen in den Fähigkeiten und der Aufmerksamkeit für diese Aktivitäten
☐	Benötigt die Aufforderung, diese Aktivitäten zu erledigen, kann sie aber dennoch selbständig durchführen
☐	Benötigt Hilfe beim Anziehen, bei der Hygiene, bei der Aufbewahrung von persönlichen Gegenständen; gelegentlich inkontinent
☐	Benötigt erhebliche Hilfe bei der Körperpflege und Hygiene; häufige Inkontinenz
7. VERHALTENS- UND PERSÖNLICHKEITSÄNDERUNGEN	
☐	Sozial angemessenes Verhalten im öffentlichen und privaten Bereich; keine Persönlichkeitsänderungen
☐	Fragwürdige oder sehr milde Veränderungen im Verhalten, der Persönlichkeit, der emotionalen Kontrolle, der Angemessenheit von Entscheidungen
☐	Leichte Veränderungen im Verhalten oder der Persönlichkeit
☐	Mäßige Verhaltens- oder Persönlichkeitsänderungen, beeinflusst Interaktionen mit anderen; kann von Freunden, Nachbarn oder entfernten Verwandten vermieden werden
☐	Schwere Verhaltens- oder Persönlichkeitsänderungen; macht Interaktionen mit anderen oft unangenehm oder vermeidenswert.
8. SPRACH- UND KOMMUNIKATIONSFÄHIGKEITEN	
☐	Keine Sprachschwierigkeiten oder gelegentliche Wortsuche; liest und schreibt genauso gut wie in der Vergangenheit.

☐	Beständige leichte Wortfindungsschwierigkeiten, verwendet beschreibende Begriffe oder braucht längere Zeit, um einen Punkt zu vermitteln, leichte Verständigungsprobleme, weniger Gespräche; kann das Lesen und Schreiben beeinträchtigen
☐	Mäßige Wortfindungsschwierigkeiten in der Sprache, kann keine Objekte benennen, deutliche Reduzierung der Wortproduktion; reduziertes Verständnis, Unterhalten, Schreiben und/oder Lesen
☐	Mäßige bis schwere Beeinträchtigungen in der Sprachproduktion oder im Verstehen; hat Schwierigkeiten, Gedanken an andere zu kommunizieren; begrenzte Fähigkeit zum Lesen oder Schreiben
☐	schwere Defizite in Sprache und Kommunikation; wenig bis keine verständliche Sprache wird produziert.
9. STIMMUNG	
☐	Keine Veränderung der Stimmung, des Interesses oder der Motivation
☐	Gelegentliche Traurigkeit, Depression, Angst, Nervosität oder Verlust von Interesse/Motivation
☐	Täglich leichte Probleme mit Traurigkeit, Depression, Angst, Nervosität oder Verlust von Interesse/Motivation
☐	Mäßige Probleme mit Traurigkeit, Depression, Angst, Nervosität oder Verlust von Interesse/Motivation
☐	Schwere Probleme mit Traurigkeit, Depression, Angst, Nervosität oder Verlust von Interesse/Motivation
10. AUFMERKSAMKEIT UND KONZENTRATION	
☐	Normale Aufmerksamkeit, Konzentration und Interaktion mit der Umwelt und Umgebung
☐	Leichte Probleme mit Aufmerksamkeit, Konzentration und Interaktion mit Umwelt und Umgebung, kann tagsüber schläfrig erscheinen
☐	Mäßige Probleme mit Aufmerksamkeit und Konzentration, kann Blickstarre haben oder Zeit mit geschlossenen Augen verbringen, erhöhte Schläfrigkeit am Tag.
☐	Ein erheblicher Teil des Tages wird mit Schlafen verbracht, ohne auf die Umwelt zu achten, kann im Gespräch Dinge sagen, die unlogisch sind oder nicht mit dem Thema übereinstimmen

☐	Eingeschränkt bis keine Fähigkeit, auf äußere Umgebung oder Umgebung zu achten.

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A.6. BIG 5 INVENTORY (BFI 10) (ENGLISH)

	1 = „Disagree strongly“	*2 = „Disagree a little“*	*3 = „Neither agree nor disagree“*	*4 = „Agree a little“*	*5 = „Agree strongly“*	*6 = „I can't make an assesment“*
(1) He/she is reserved.	☐	☐	☐	☐	☐	☐
(2) He/she is generally trusting.	☐	☐	☐	☐	☐	☐
(3) He/she tends to be lazy.	☐	☐	☐	☐	☐	☐
(4) He/she is relaxed, handles stress well.	☐	☐	☐	☐	☐	☐
(5) He/she has few artistic interests.	☐	☐	☐	☐	☐	☐
(6) He/she is outgoing, sociable.	☐	☐	☐	☐	☐	☐
(7) He/she tends to find fault with others.	☐	☐	☐	☐	☐	☐
(8) He/she does a thorough job.	☐	☐	☐	☐	☐	☐
(9) He/she gets nervous easily.	☐	☐	☐	☐	☐	☐
(10) He/she has an active imagination.	☐	☐	☐	☐	☐	☐

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A.7. USABILITY METRIX FOR USER EXPERIENCE (ENGLISH)

Instruction: “How strongly do you agree with the following statements about SUCCESS? Please rate each statement on the scale from 1="Strongly Disagree" to 7="Strongly Agree".”

	1 (Strongly Disagree)	2	3	4	5	6	7 (Strongly Agree)

1) The capabilities of SUCCESS meet my requirements.	☐	☐	☐	☐	☐	☐	☐
2) Using SUCCESS is a frustrating experience.	☐	☐	☐	☐	☐	☐	☐
3) SUCCESS is easy to use.	☐	☐	☐	☐	☐	☐	☐
4) I have to spend too much time correcting things with SUCCESS.	☐	☐	☐	☐	☐	☐	☐

(We will discuss the ratings after wards with the participants. E.g. “You rated the first question with a x. Could you please describe why?”)

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APPENDIX C: INTERVIEW GUIDELINES TRIAL 1

A.1. INTERVIEW GUIDELINE INFORMAL CAREGIVER 6 WEEK FOLLOW-UP (ENGLISH)

- May the conversation be recorded? Yes / No
- Apart from the SUCCESS app, have you ever downloaded an app to your SmartPhone that could support you in everyday caregiver activities? (e.g. an advisory) Yes _____ / No

  If so, did you pay for it? Yes / No

  If so, how much? ____€
- Can you imagine paying for an app that supports you in your daily care routine? Yes / No

  If so, what would such an app have to offer?
- How much would you be willing to pay? ________ €

1. General issues

As you know, the SUCCESS application is not yet a fully finished and perfectly working technology. Therefore, we would be very interested in hearing things that did not work or did not work properly. Can you tell us about anything that happened over the weeks?

2. Changes in care

Please think about the last weeks using the SUCCESS application: Did you experience any changes in your daily care routines or activities? Which ones?

3. General experiences with SUCCESS

b. Please tell me about your most positive experiences with SUCCESS

c. Please tell me about your most negative experiences with SUCCESS.

d. What are your most favourite features of SUCCESS? Why?
e. Can you tell us whether the SUCCESS App had any impact on aspects on your life?

If not mentioned by the participants, please ask for the following aspects*:*

- (Care) relationship between carer and PwD
- Potential of retaining care activities for longer time
- Satisfaction with care activities
- Self-confidence in care activities
- Compliance of PwD in care
- Caregiver burden
- Taking more care for oneself

4. Use of Features

a. Did you use the Learn & Train feature? Yes / No

- If yes: What was your impression?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What did you think about the presented information?
- If yes: What could be done to improve the Learn & Train feature?
- If no: why?
- If no: What could be done to improve the Learn & Train feature?

b. Did you do role plays with the avatar? Yes/No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: To what extent do you consider the avatar to be "suitable" for the interaction in role play?
    - How was the comprehensibility
    - How was the naturalness (facial expressions, gestures, movement, charisma)?
    - What was the appearance like?
    - How did you feel about the emotions shown by the avatar?
- If yes: What could be done to improve the role plays with the avatar?
- If no: why?
- If no: What could be done to improve the avatar role plays?

c. Did you use the Quick info feature to get fast support in special situations? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: When did you use the Quick info feature?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What could be done to improve the Quick info feature?
- If no: why?
- If no: What could be done to improve the Quick Info feature?

d. Did you use the Meaningful activities feature? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?

- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What could be done to improve the Meaningful activities feature?
- If no: why?
- If no: What could be done to improve the Meaningful activities feature?

e. Did you use the Emotional support feature? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: Did you experience any changes of your emotional state during the last weeks?
- If yes: What could be done to improve the Emotional support feature?
- If no: why?
- If no: What could be done to improve the Emotional support feature?

5. Avatar in Roleplay (the order of block 6 and 7 is interchanged amongst participants)

a. Which avatar did you use in the roleplay? F / M

If you haven't tried the role play, which of the two avatars would you rather use?

b. I would like to ask you to look at this avatar and imagine the life of this person. Please tell me how you think this person is like, what their life looks like, what they like to do in their free time and so on.

How well do the following statements describe the personality of the avatar?

	1 = „Disagree strongly“	*2 = „Disagree a little“*	*3 = „Neither agree nor disagree“*	*4 = „Agree a little“*	*5 = „Agree strongly“*	*6 = „I can't make an assesment“*
(1) He/she is reserved.	☐	☐	☐	☐	☐	☐
(2) He/she is generally trusting.	☐	☐	☐	☐	☐	☐
(3) He/she tends to be lazy.	☐	☐	☐	☐	☐	☐
(4) He/she is relaxed, handles stress well.	☐	☐	☐	☐	☐	☐
(5) He/she has few artistic interests.	☐	☐	☐	☐	☐	☐
(6) He/she is outgoing, sociable.	☐	☐	☐	☐	☐	☐
(7) He/she tends to find fault with others.	☐	☐	☐	☐	☐	☐
(8) He/she does a thorough job.	☐	☐	☐	☐	☐	☐
(9) He/she gets nervous easily.	☐	☐	☐	☐	☐	☐
(10) He/she has an active imagination.	☐	☐	☐	☐	☐	☐

The following descriptions characterize changes in the cognitive and functional abilities of the person with dementia. You will now be asked to compare the person as he or she is now with what the person was like before - the main feature is the change. Choose one answer for each category that fits best to the person with dementia

- NOTE, not all descriptions must be available to select an answer.

1. MEMORY AND REMEMBRANCE

☐	No obvious memory loss or fluctuating forgetfulness that does not interfere with daily activities.
☐	Constant slight forgetfulness or only partial remembrance of events that can disrupt everyday activities; repeated questions/statements, misplaced objects, forgets appointments.
☐	Mild to moderate memory loss; more noticeable in recent events; impairs everyday activities.
☐	Moderate to severe memory loss; only very well learned information is stored; new information quickly forgotten.

☐	Severe memory loss, almost impossible to retain new information; long-term memory may be impaired.
2. Orientation	
☐	Completely oriented in terms of person, place and time, almost at any time.
☐	Slight difficulties with time recording; forgets the day or date more often than in the past.
☐	Slight to moderate difficulties in tracking the time and sequence of events; forgets month or year; orients to familiar places but gets confused outside familiar areas; gets lost or wanders around.
☐	Medium to severe difficulties, mostly disorientated in terms of time and place (familiar and unknown); often dwells in the past
☐	Only orientated towards the own name, however, can possibly recognize family members.
3. DECISION-MAKING AND PROBLEM-SOLVING SKILLS	
☐	Solves everyday problems without difficulty; manages personal business and financial matters well; decision-making ability equal to previous performance.
☐	Slight impairment or longer time needed to solve problem; problems with abstract concepts; decisions still well-founded.
☐	Moderate difficulty in dealing with problems and making decisions; postpones many decisions to others; social judgment and behavior can be easily impaired; loss of insight
☐	Seriously impaired in dealing with problems, only makes simple personal decisions; social judgment and behaviour often impaired; lack of insight.
☐	Unable to make decisions or solve problems; others make almost all decisions for the patient.
4. ACTIVITIES OUTSIDE THE HOUSE	
☐	Independently in their activity at the usual level of performance in work, shopping, community and religious activities, voluntary work or social groups
☐	Slight impairment of these activities compared to previous performances; slight change in driving ability; still able to cope with emergency situations.
☐	Unable to work independently, but still present and engaged; appears to others as "normal"; noticeable changes in driving skills; concerned about ability to cope with emergency situations

☐	No appearance of independent action outside the home; seems fit enough to be taken to activities outside the home, but generally needs to be accompanied
☐	No independent activities; appears too sick to be taken to outside activities.
5. FUNCTION AT HOME AND HOBBY-ACTIVITIES	
☐	Tasks at home, hobbies and personal interests are well cared for in comparison to the previous performance.
☐	Minor impairment of or interest in these activities; difficulties in operating equipment (in particular new purchases).
☐	Slight but definite impairment of the home and hobby activity; more difficult activities or tasks neglected; more complicated hobbies and interests abandoned.
☐	Only simple activities remain, very limited interest in hobbies that are poorly maintained.
☐	No meaningful activity in the household or previous hobbies.
6. GOING TO THE TOILET AND PERSONAL HYGEINE	
☐	Full self-care ability (dressing, hairdressing, washing, bathing, going to the toilet).
☐	Slight changes in skills and attention to these activities.
☐	Requires the request to perform these activities, but can still perform them independently.
☐	Requires help with dressing, hygiene, storage of personal belongings; occasionally incontinent.
☐	Requires considerable help with body care and hygiene; frequent incontinence.
7. BEHAVIOURAL AND PERSONALITY CHANGES	
☐	Socially appropriate behaviour in the public and private spheres; no personality changes.
☐	Questionable or very mild changes in behaviour, personality, emotional control, adequacy of decisions.
☐	Slight changes in behavior or personality.
☐	Moderate behavioural or personality changes, affects interactions with others; can be avoided by friends, neighbours or distant relatives.
☐	Severe behavioural or personality changes; often makes interactions with others unpleasant or avoidable.
8. LANGUAGE AND COMMUNICATION SKILLS	

☐	No language difficulties or occasional word searching; reads and writes as well as in the past.
☐	Persistent minor difficulty in finding words, uses descriptive terms or takes longer to communicate a topic, minor communication problems, fewer conversations; may interfere with reading and writing.
☐	Moderate difficulties in finding words in the language, cannot name objects, significant reduction in word production; reduced understanding, conversation, writing and/or reading.
☐	Moderate to severe impairments in speech production or comprehension; has difficulty communicating thoughts to others; limited ability to read or write.
☐	Severe deficits in language and communication; little or no understandable language is produced.
9. MOOD	
☐	No change in mood, interest or motivation.
☐	Occasional sadness, depression, anxiety, nervousness, or loss of interest / motivation.
☐	Daily slight problems with sadness, depression, anxiety, nervousness or loss of interest / motivation.
☐	Moderate problems with sadness, depression, anxiety, nervousness, or loss of interest / motivation.
☐	Severe problems with sadness, depression, anxiety, nervousness, or loss of interest / motivation.
10. ATTENTION AND CONCENTRATION	
☐	Normal attention, concentration and interaction with the environment and surroundings.
☐	Slight problems with attention, concentration and interaction with the environment and surroundings, may appear sleepy during the day.
☐	Moderate problems with attention and concentration, may have gaze rigidity or spend time with closed eyes, increased drowsiness during the day.
☐	A considerable part of the day is spent sleeping, without paying attention to the environment, can say things in conversation that are illogical or do not agree with the subject.
☐	Limited to no ability to pay attention to external environment or surroundings.

How well do the following statements describe the personality of the PwD?

	1 = „Disagree strongly“	*2 = „Disagree a little“*	*3 = „Neither agree nor disagree“*	*4 = „Agree a little“*	*5 = „Agree strongly“*	*6 = „I can't make an assesment“*
(1) He/she is reserved.	☐	☐	☐	☐	☐	☐
(2) He/she is generally trusting.	☐	☐	☐	☐	☐	☐
(3) He/she tends to be lazy.	☐	☐	☐	☐	☐	☐
(4) He/she is relaxed, handles stress well.	☐	☐	☐	☐	☐	☐
(5) He/she has few artistic interests.	☐	☐	☐	☐	☐	☐
(6) He/she is outgoing, sociable.	☐	☐	☐	☐	☐	☐
(7) He/she tends to find fault with others.	☐	☐	☐	☐	☐	☐
(8) He/she does a thorough job.	☐	☐	☐	☐	☐	☐
(9) He/she gets nervous easily.	☐	☐	☐	☐	☐	☐
(10) He/she has an active imagination.	☐	☐	☐	☐	☐	☐

Would you like to add anything else?

Have you used your own mobile phone or an AIT mobile phone?

- If own mobile phone: Send tracking
- If AIT mobile phone: return

May we contact you again in the future for follow-up studies etc.? Yes / No

A.2. INTERVIEW GUIDELINE FORMAL CAREGIVER 6 WEEK FOLLOW-UP (ENGLISH)

- May the conversation be recorded? Yes / No
- Apart from the SUCCESS app, have you ever downloaded an app to your SmartPhone that could support you in everyday caregiver activities? (e.g. an advisory) Yes _____ / No

  If so, did you pay for it? Yes / No

  If so, how much? ____€
- Can you imagine paying for an app that supports you in your daily care routine? Yes / No

  If so, what would such an app have to offer?
- How much would you be willing to pay? ________ €

1. General issues

As you know, the SUCCESS application is not yet a fully finished and perfectly working technology. Therefore, we would be very interested in hearing things that did not work or did not work properly. Can you tell us about anything that happened over the weeks?

2. Changes in care

Please think about the last weeks using the SUCCESS application: Did you experience any changes in your daily care routines or activities? Which ones?

3. General experiences with SUCCESS

b. Please tell me about your most positive experiences with SUCCESS

c. Please tell me about your most negative experiences with SUCCESS.

d. What are your most favourite features of SUCCESS? Why?

e. Can you tell us whether the SUCCESS App had any impact on aspects on your life?

If not mentioned by the participants, please ask for the following aspects *:*

- (Care) relationship between carer and PwD
- Potential of retaining care activities for longer time
- Satisfaction with care activities
- Self-confidence in care activities
- Compliance of PwD in care
- Caregiver burden
- Taking more care for oneself

4. Use of Features

a. Did you use the Learn & Train feature? Yes / No

- If yes: What was your impression?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What did you think about the presented information?
- If yes: What could be done to improve the Learn & Train feature?
- If no: why?
- If no: What could be done to improve the Learn & Train feature?

b. Did you do role plays with the avatar? Yes/No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: To what extent do you consider the avatar to be "suitable" for the interaction in role play?
    - How was the comprehensibility
    - How was the naturalness (facial expressions, gestures, movement, charisma)?
    - What was the appearance like?
    - How did you feel about the emotions shown by the avatar?
- If yes: What could be done to improve the role plays with the avatar?
- If no: why?
- If no: What could be done to improve the avatar role plays?

c. Did you use the Quick info feature to get fast support in special situations? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: When did you use the Quick info feature?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What could be done to improve the Quick info feature?

- If no: why?
- If no: What could be done to improve the Quick Info feature?

d. Did you use the Meaningful activities feature? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: What could be done to improve the Meaningful activities feature?
- If no: why?
- If no: What could be done to improve the Meaningful activities feature?

e. Did you use the Emotional support feature? Yes / No

- If yes: What was your impression?
- If yes: What did you think about the presented information?
- If yes: How useful was this feature to you? Could you please describe a typical situation when you used it?
- If yes: Did you experience any changes of your emotional state during the last weeks?
- If yes: What could be done to improve the Emotional support feature?
- If no: why?
- If no: What could be done to improve the Emotional support feature?

5. Avatar in Roleplay (the order of block 6 and 7 is interchanged amongst participants)

a. Which avatar did you use in the roleplay? F / M

If you haven't tried the role play, which of the two avatars would you rather use?

I would like to ask you to look at this avatar and imagine the life of this person. Please tell me how you think this person is like, what their life looks like, what they like to do in their free time and so on.

b. How well do the following statements describe the personality of the avatar?

	1 = „Disagree strongly“	2 = „Disagree a little“	3 = „Neither agree nor disagree“	4 = „Agree a little“	5 = „Agree strongly“	6 = „I can't make an assesment“
(1) He/she is reserved.	☐	☐	☐	☐	☐	☐
(2) He/she is generally trusting.	☐	☐	☐	☐	☐	☐
(3) He/she tends to be lazy.	☐	☐	☐	☐	☐	☐
(4) He/she is relaxed, handles stress well.	☐	☐	☐	☐	☐	☐
(5) He/she has few artistic interests.	☐	☐	☐	☐	☐	☐
(6) He/she is outgoing, sociable.	☐	☐	☐	☐	☐	☐
(7) He/she tends to find fault with others.	☐	☐	☐	☐	☐	☐
(8) He/she does a thorough job.	☐	☐	☐	☐	☐	☐
(9) He/she gets nervous easily.	☐	☐	☐	☐	☐	☐
(10) He/she has an active imagination.	☐	☐	☐	☐	☐	☐

How well do the following statements describe the personality of the PwD?

	1 = „Disagree strongly“	*2 = „Disagree a little“*	*3 = „Neither agree nor disagree“*	*4 = „Agree a little“*	*5 = „Agree strongly“*	*6 = „I can't make an assesment“*
(1) He/she is reserved.	☐	☐	☐	☐	☐	☐
(2) He/she is generally trusting.	☐	☐	☐	☐	☐	☐
(3) He/she tends to be lazy.	☐	☐	☐	☐	☐	☐
(4) He/she is relaxed, handles stress well.	☐	☐	☐	☐	☐	☐
(5) He/she has few artistic interests.	☐	☐	☐	☐	☐	☐
(6) He/she is outgoing, sociable.	☐	☐	☐	☐	☐	☐
(7) He/she tends to find fault with others.	☐	☐	☐	☐	☐	☐
(8) He/she does a thorough job.	☐	☐	☐	☐	☐	☐
(9) He/she gets nervous easily.	☐	☐	☐	☐	☐	☐
(10) He/she has an active imagination.	☐	☐	☐	☐	☐	☐

Would you like to add anything else?

Have you used your own mobile phone or an AIT mobile phone?

- If own mobile phone: Send tracking

- If AIT mobile phone: return

May we contact you again in the future for follow-up studies etc.? Yes / No

APPENDIX D: SCALES TRIAL 2

A.1. SOCIO-DEMOGRAPHICS (ENGLISH)

In this questionnaire, we will ask you to give information about your background.

Age

Comparative (subjective age)

Rated on a scale ranging from 1 (a lot younger than my age) to 4 (the age I am) to 7 (a lot older than my age).

Compared to most people my age, most of the time I feel____
Compared to most people my age, most of the time I look____
My interests and activities are most like people who are ____
My same-sex friends act toward me as if I am____
Opposite-sex peers act toward me as if I am____

Non-comparative

How old are you?____ years. (only numbers)

Gender

Please indicate your gender -> **free textspace** / Postive-Negative-Sex-Role Inventory

Social Class

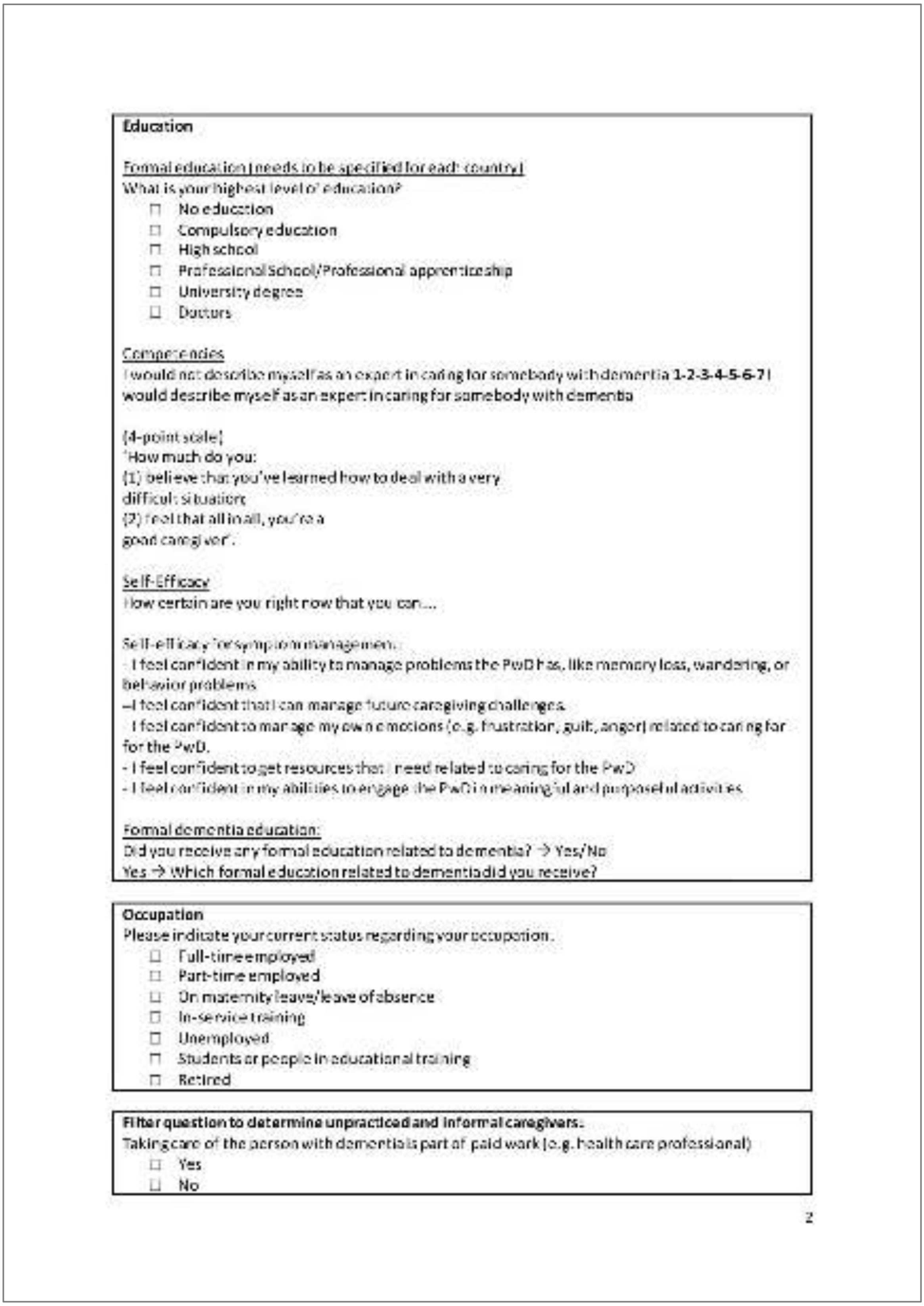
Think of this ladder as representing where people stand in the United States.

At the **top** of the ladder are the people who are the best off – those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off – who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?

Please place a large "X" on the rung where you think you stand at this time in your life, relative to other people in the United States.

1



Education

Formal education (needs to be specified for each country)
What is your highest level of education?

- ☐ No education
- ☐ Compulsory education
- ☐ High school
- ☐ Professional School/Professional apprenticeship
- ☐ University degree
- ☐ Doctors

Competencies
I would not describe myself as an expert in caring for somebody with dementia **1-2-3-4-5-6-7 I would describe myself as an expert in caring for somebody with dementia**

(4-point scale)
'How much do you:
(1) believe that you've learned how to deal with a very
difficult situation;
(2) feel that all in all, you're a
good caregiver'.

Self-Efficacy
How certain are you right now that you can....

Self-efficacy for symptom management:
- I feel confident in my ability to manage problems the PwD has, like memory loss, wandering, or behavior problems
–I feel confident that I can manage future caregiving challenges.
- I feel confident to manage my own emotions (e.g. frustration, guilt, anger) related to caring for for the PwD.
- I feel confident to get resources that I need related to caring for the PwD
- I feel confident in my abilities to engage the PwD in meaningful and purposeful activities.

Formal dementia education:
Did you receive any formal education related to dementia? → Yes/No
Yes → Which formal education related to dementia did you receive?

Occupation
Please indicate your current status regarding your occupation.

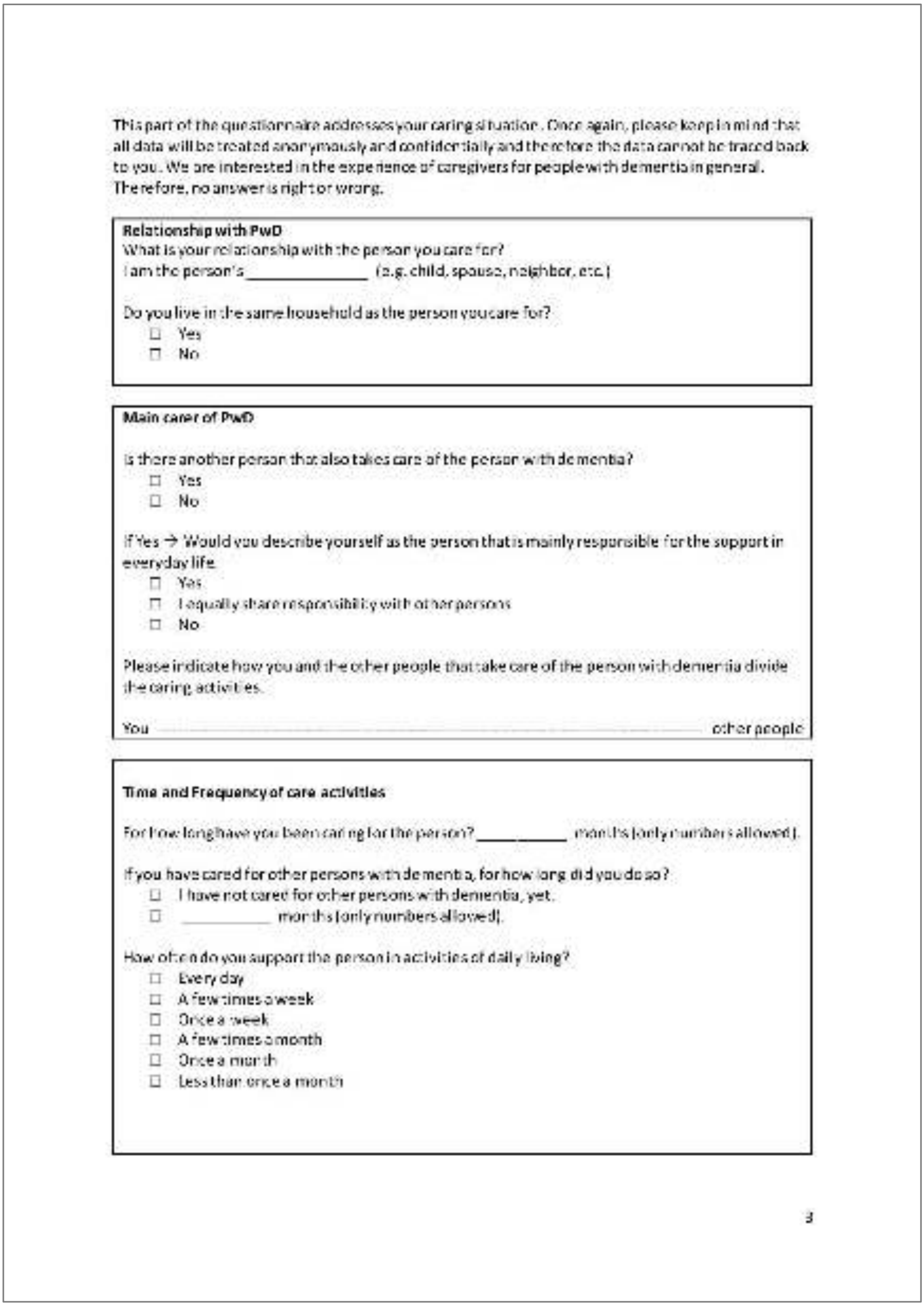
- ☐ Full-time employed
- ☐ Part-time employed
- ☐ On maternity leave/leave of absence
- ☐ In-service training
- ☐ Unemployed
- ☐ Students or people in educational training
- ☐ Retired

Filter question to determine unpracticed and informal caregivers.
Taking care of the person with dementia is part of paid work (e.g. health care professional)

- ☐ Yes
- ☐ No

2

A.2. CARE SITUATION / TIME FOR CARE (ENGLISH)



This part of the questionnaire addresses your caring situation . Once again, please keep in mind that all data will be treated anonymously and confidentially and therefore the data cannot be traced back to you. We are interested in the experience of caregivers for people with dementia in general. Therefore, no answer is right or wrong.

Relationship with PwD

What is your relationship with the person you care for?

I am the person's ______________ (e.g. child, spouse, neighbor, etc.)

Do you live in the same household as the person you care for?

- ☐ Yes
- ☐ No

Main carer of PwD

Is there another person that also takes care of the person with dementia?

- ☐ Yes
- ☐ No

If Yes → Would you describe yourself as the person that is mainly responsible for the support in everyday life.

- ☐ Yes
- ☐ I equally share responsibility with other persons
- ☐ No

Please indicate how you and the other people that take care of the person with dementia divide the caring activities.

You ____ other people

Time and Frequency of care activities

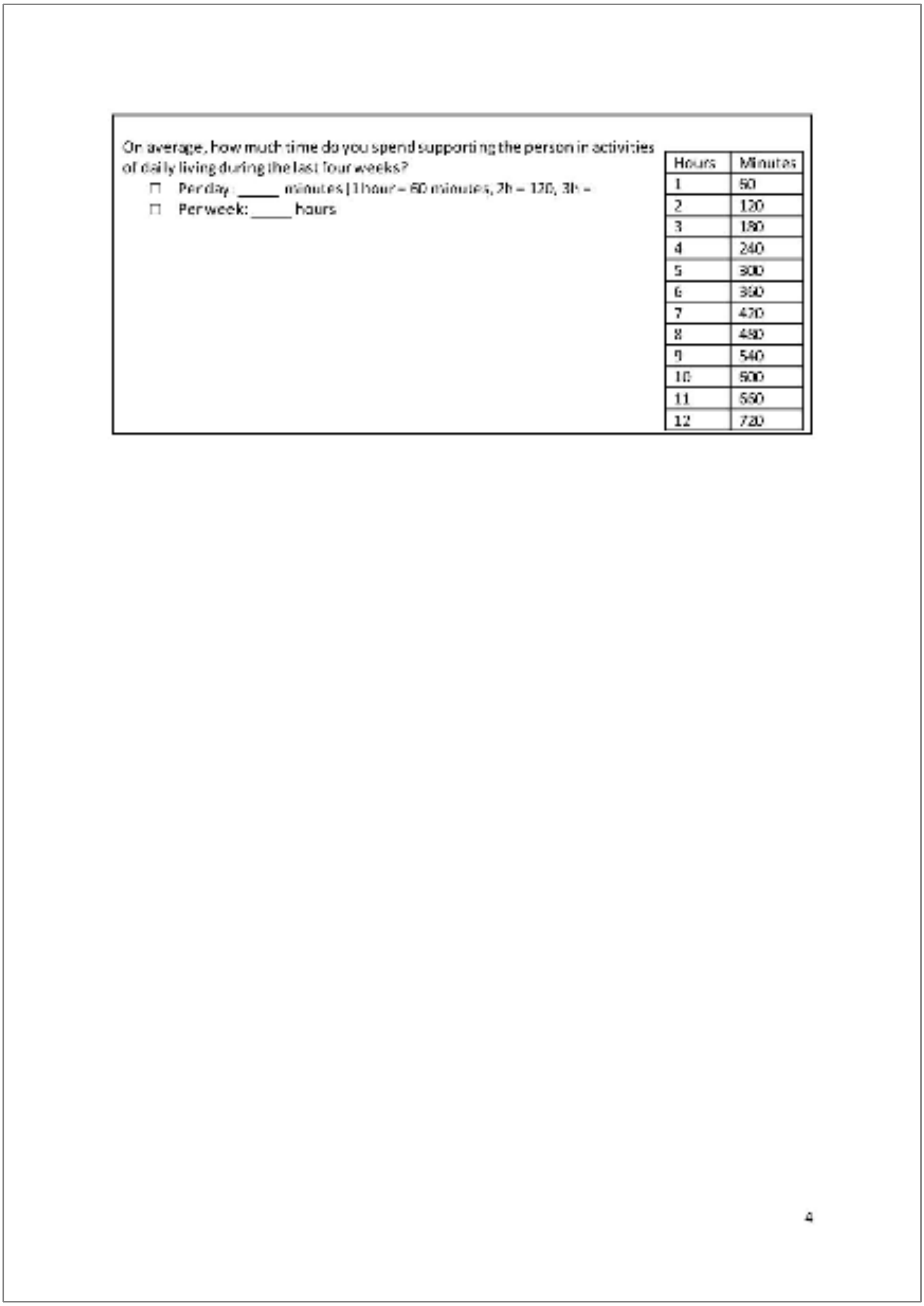
For how long have you been caring for the person? ___________ months (only numbers allowed).

If you have cared for other persons with dementia, for how long did you do so?

- ☐ I have not cared for other persons with dementia, yet.
- ☐ ___________ months (only numbers allowed).

How often do you support the person in activities of daily living?

- ☐ Every day
- ☐ A few times a week
- ☐ Once a week
- ☐ A few times a month
- ☐ Once a month
- ☐ Less than once a month

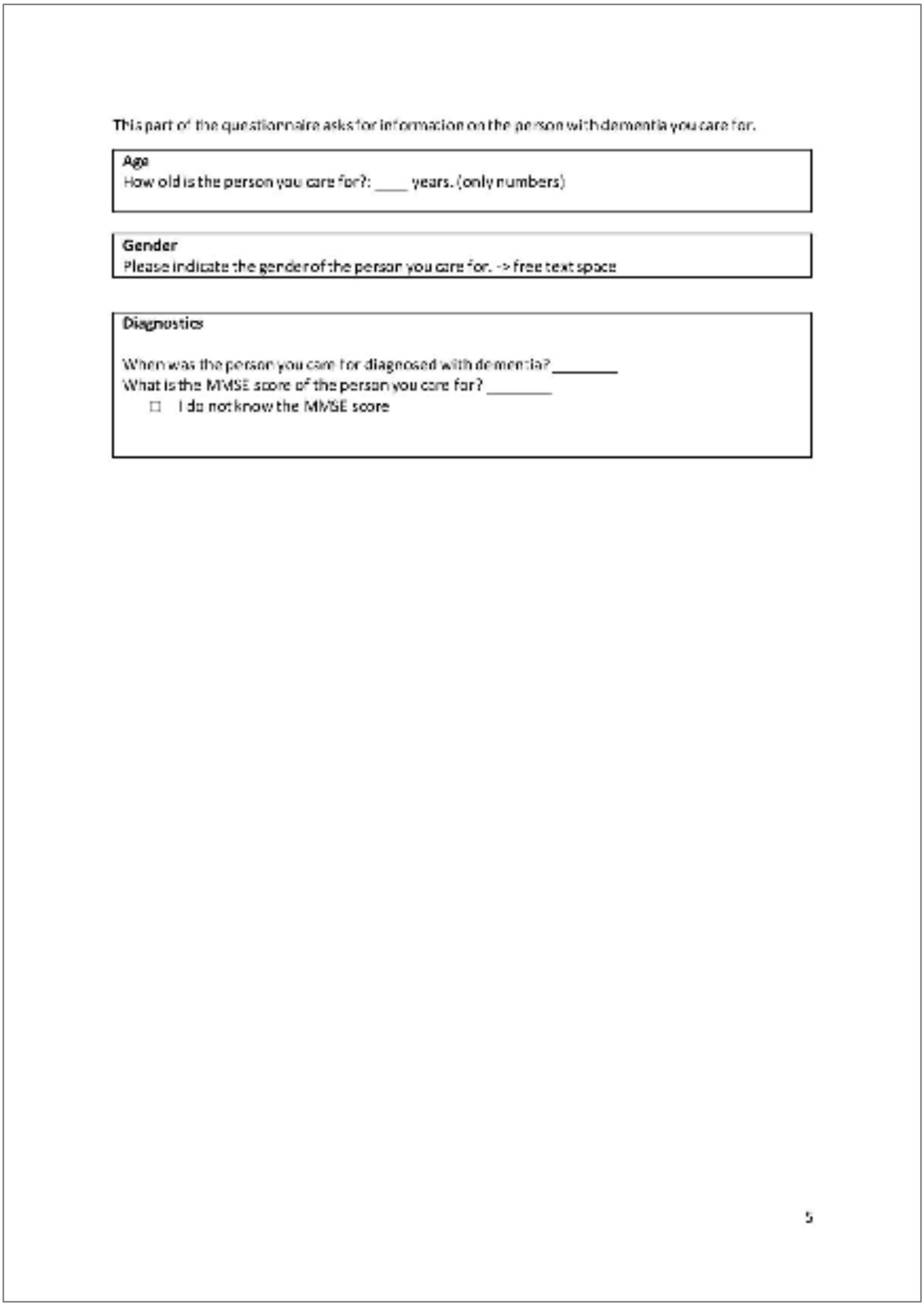


On average, how much time do you spend supporting the person in activities of daily living during the last four weeks?

- ☐ Per day: _____ minutes | 1 hour = 60 minutes, 2h = 120, 3h =
- ☐ Per week: _____ hours

Hours	Minutes
1	60
2	120
3	180
4	240
5	300
6	360
7	420
8	480
9	540
10	600
11	660
12	720

A.3. SOCIO-DEMOGRAPHICS OF PWD (ENGLISH)



This part of the questionnaire asks for information on the person with dementia you care for.

Age
How old is the person you care for?: ____ years. (only numbers)

Gender
Please indicate the gender of the person you care for. -> free text space

Diagnostics

When was the person you care for diagnosed with dementia? ________
What is the MMSE score of the person you care for? ________
- ☐ I do not know the MMSE score

5

A.4. TAM (GERMAN/ENGLISH)

PU1	Das Benutzen von SUCCESS verbessert meine Leistung in meiner Pflegtätigkeit.	Using SUCCESS improves my performance in my caring activity.
PU2	Das Benutzen von SUCCESS erhöht meine Produktivität in meiner Pflegtätigkeit.	Using SUCCESS in my caring activity increases my productivity.
PU3	Das Benutzen von SUCCESS steigert meine Effektivität in meiner Pflegetätigkeit.	Using SUCCESS enhances my effectiveness in my caring activity.
PU4	Ich empfinde SUCCESS als nützlich in meiner Pflegetätigkeit.	I find SUCCESS to be useful in my job.
PEOU1	Die Handhabung von SUCCESS ist klar und verständlich.	My interaction with SUCCESS is clear and understandable.
PEOU2	Die Nutzung von SUCCESS ist geistig nicht sehr anstrengend.	Interacting with SUCCESS does not require a lot of my mental effort.
PEOU3	Ich finde SUCCESS ist einfach zu benutzen.	I find SUCCESS to be easy to use.
PEOU4	Ich fand es einfach die App dazu zu bringen das zu tun, was ich wollte.	I find it easy to get the app to do what I want it to do.
CSE1	Ich könnte neue Technologien nutzen um Aufgaben in der Pflege zu bewältigen, wenn niemand dabei wäre, um mir zu sagen, was ich tun sollte.	I could use new technologies to complete caring activities if there was no one around to tell me what to do as I go.
CSE2	Ich könnte neue Technologien nutzen um Aufgaben in der Pflege zu bewältigen, wenn ich ausschließlich die integrierte Hilfefunktion zur Verfügung hätte.	I could use new technologies to complete caring activities if I had just the built-in help facility for assistance.
CSE3	Ich könnte neue Technologien nutzen um Aufgaben in der Pflege zu bewältigen, wenn mir vorab jemand gezeigt hätte, wie es geht.	I could use new technologies to complete caring activities if someone showed me how to do it first.
CSE4	Ich könnte neue Technologien nutzen um Aufgaben in der Pflege zu bewältigen, wenn ich vorab bereits ähnliche Systeme für dieselben Aufgaben genutzt hätte.	I could use new technologies to complete caring activities if I had used similar packages before this one to do the same job.
PEC1	Ich habe die Kontrolle über die Nutzung der App.	I have control over using SUCCESS.
PEC2	Ich habe die benötigten Ressourcen, um SUCCESS zu benutzen.	I have the resources necessary to use SUCCESS.

PEC3	Sofern die Ressourcen, Gelegenheiten und Kenntnisse, die für die Nutzung der App erforderlich sind gegeben wären, wäre es einfach für mich, die App zu benutzen.	Given the resources, opportunities and knowledge it takes to use the app, it would be easy for me to use the app.
PEC4	Die App ist nicht mit anderen Systemen, die ich benutze, vereinbar.	The app is not compatible with other systems I use.
CPLAY1	Bei der Nutzung von neuen Technologien würde ich mich als spontan bezeichnen.	When using new technologies, I would characterize myself as spontaneous.
CPLAY2	Bei der Nutzung von neuen Technologien würde ich mich als kreativ bezeichnen.	When using new technologies, I would characterize myself as creative.
CPLAY3	Bei der Nutzung von neuen Technologien würde ich mich als verspielt bezeichnen.	When using new technologies, I would characterize myself as playful.
CPLAY4	Bei der Nutzung von neuen Technologien würde ich mich als wenig originell bezeichnen.	When using new technologies, I would characterize myself as unoriginal.
CANX1	Ich habe keine Berührungsängste mit neuen Technologien.	New technologies do not scare me at all.
CANX2	Das Arbeiten mit neuen Technologien macht mich nervös.	Working with new technologies makes me nervous.
CANX3	Neue Technologien lösen Unbehagen in mir aus.	New technologies make me feel uncomfortable.
CANX4	Neue Technologien lösen bei mir ein Gefühl der Unruhe aus.	New technologies make me feel uneasy.
ENJ1	Ich finde das Benutzen von SUCCESS ist vergnüglich.	I find using SUCCESS to be enjoyable.
ENJ2	Das Benutzen von SUCCESS ist angenehm.	The actual process of using SUCCESS is pleasant.
ENJ3	Ich habe Spaß dabei, SUCCESS zu benutzen.	I have fun using SUCCESS.
SN1	Menschen die mein Verhalten beeinflussen denken, dass ich SUCCESS nutzen sollte.	People who influence my behavior think that I should use the system.
SN2	Menschen die mir wichtig sind denken, dass ich SUCCESS nutzen sollte.	People who are important to me think that I should use the system.
SN3	Die Betriebsleitung unserer Organisation, war hilfreich hinsichtlich der Nutzung der App.	The senior management of this business has been helpful in the use of the system.

SN4	Im Allgemeinen unterstützt meine Organisation die Nutzung der App.	In general, the organization has supported the use of the system.
VOL1	Ich Nutze die App freiwillig.	My use of the system is voluntary.
VOL2	Es verlangt niemand der mir etwas zu sagen hat von mir dass ich die App verwende.	My supervisor does not require me to use the system.
VOL3	Auch wenn es vielleicht hilfreich sein mag, ist es bestimmt nicht verpflichtend in meiner Pflegesituation die App zu verwenden.	Although it might be helpful, using the system is certainly not compulsory in my job.
IMG1	Pflegepersonen, welche die App verwenden, sind prestigeträchtiger als jene, die es nicht tun.	Caregivers who use the system have more prestige than those who do not.
IMG2	Pflegepersonen welche die App verwenden haben ein hohes Ansehen.	Caregivers who use the system have a high profile.
IMG3	Die App zu haben ist ein Statussymbol für Pflegepersonen.	Having the system is a status symbol for caregivers.
REL1	In meiner Pflegetätigkeit ist die Nutzung der App wichtig.	In my care activities, usage of the app is important.
REL2	In meiner Pflegetätigkeit ist die Nutzung der App relevant.	In my care activities, usage of the app is relevant.
REL3	Das Benutzen der App ist für meine verschiedenen Aufgaben in der Pflege relevant.	The use of the app is pertinent to my various job-related tasks.
OUT1	Die Qualität der App-Inhalte, die ich durch SUCCESS bekomme, ist hoch.	The quality of the content I get from the app is high.
OUT2	Ich habe kein Problem mit der Qualität der App-Inhalte.	I have no problem with the quality of the apps content.
OUT3	Ich bewerte die Ergebnisse von SUCCESS als exzellent.	I rate the results from SUCCESS to be excellent.
RES1	Ich habe keine Schwierigkeiten, anderen von den Ergebnissen der Nutzung der App zu erzählen.	I have no difficulty telling others about the results of using the app.
RES2	Ich glaube, ich könnte anderen die Folgen der Nutzung der App erklären.	I believe I could communicate to others the consequences of using the app.
RES3	Die Ergebnisse der Nutzung der App sind für mich deutlich ersichtlich.	The results of using the app are apparent to me.

RES4	Ich hätte Schwierigkeiten zu erklären weshalb die App zu verwenden Sinnvoll wäre oder nicht.	I would have difficulty explaining why using the app may or may not be beneficial.
BI1	Angenommen ich hätte weiterhin Zugang zu SUCCESS, würde ich beabsichtigen es zu benutzen.	Assuming I would continue to have access to SUCCESS, I intend to use it.
BI2	Wenn ich weiterhin Zugang zu SUCCESS hätte, würde ich annehmen, dass ich es benutzen würde.	Given that I had access to SUCCESS, I predict that I would use it.
BI3	Ich habe vor, SUCCESS zu nutzen, wenn es erhältlich ist.	I plan to use SUCCESS in the next months.

Remark: This scale is included to this document for project documentation purposes. Usage for other purposes is subject to the terms of the instrument owners.

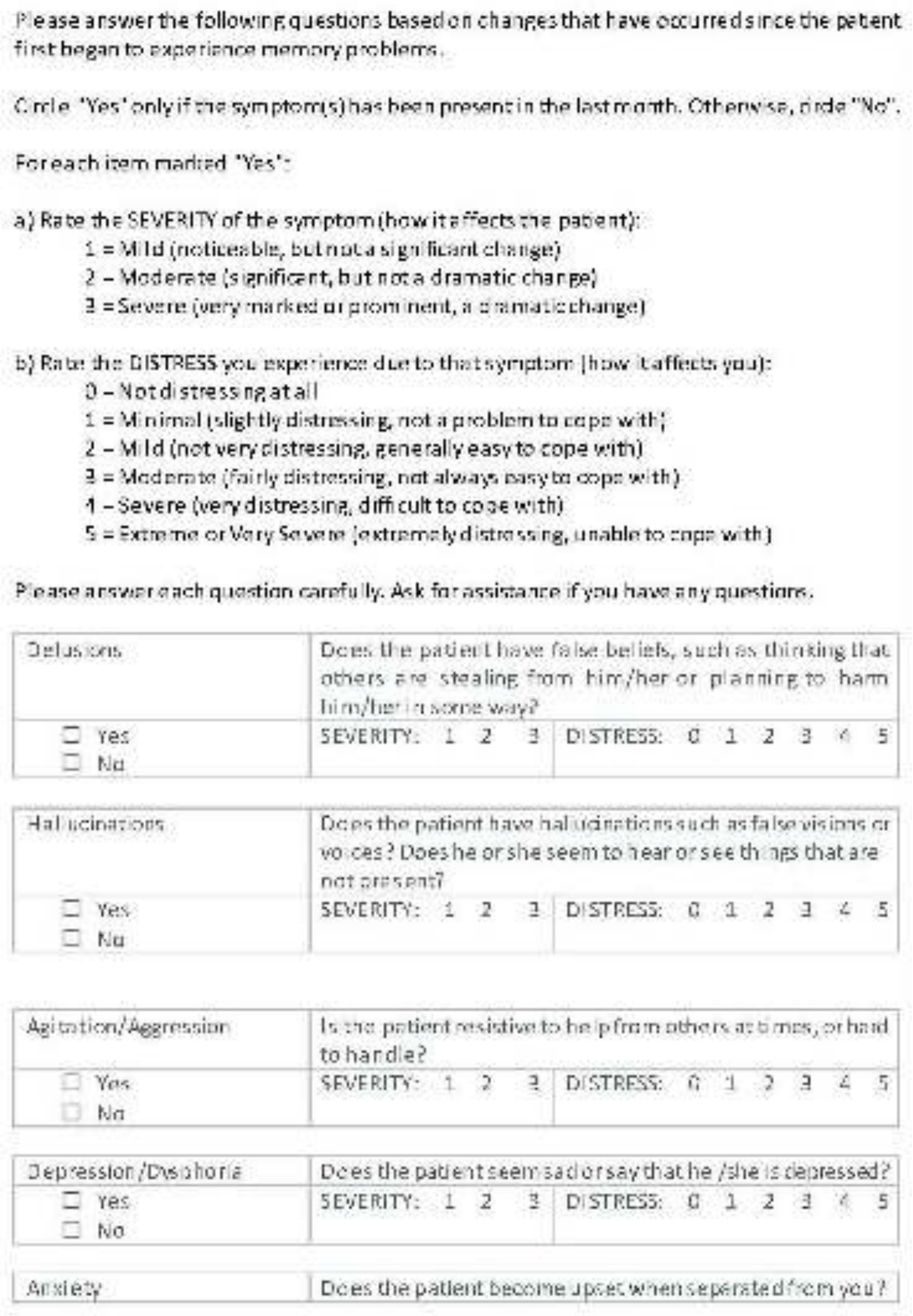
A.5. UEQ (ENGLISH)

Please assess the product now by ticking one circle per line.

	1	2	3	4	5	6	7		
annoying	○	○	○	○	○	○	○	enjoyable	1
not understandable	○	○	○	○	○	○	○	understandable	2
creative	○	○	○	○	○	○	○	dull	3
easy to learn	○	○	○	○	○	○	○	difficult to learn	4
valuable	○	○	○	○	○	○	○	inferior	5
boring	○	○	○	○	○	○	○	exciting	6
not interesting	○	○	○	○	○	○	○	interesting	7
unpredictable	○	○	○	○	○	○	○	predictable	8
fast	○	○	○	○	○	○	○	slow	9
inventive	○	○	○	○	○	○	○	conventional	10
obstructive	○	○	○	○	○	○	○	supportive	11
good	○	○	○	○	○	○	○	bad	12
complicated	○	○	○	○	○	○	○	easy	13
unlikable	○	○	○	○	○	○	○	pleasing	14
usual	○	○	○	○	○	○	○	leading edge	15
unpleasant	○	○	○	○	○	○	○	pleasant	16
secure	○	○	○	○	○	○	○	not secure	17
motivating	○	○	○	○	○	○	○	demotivating	18
meets expectations	○	○	○	○	○	○	○	does not meet expectations	19
inefficient	○	○	○	○	○	○	○	efficient	20
clear	○	○	○	○	○	○	○	confusing	21
impractical	○	○	○	○	○	○	○	practical	22
organized	○	○	○	○	○	○	○	cluttered	23
attractive	○	○	○	○	○	○	○	unattractive	24
friendly	○	○	○	○	○	○	○	unfriendly	25
conservative	○	○	○	○	○	○	○	innovative	26

Remark: This scale is included to this document for project documentation purposes. Usage for other purposes is subject to the terms of the instrument owners.

A.6. NPI (ENGLISH)



Please answer the following questions based on changes that have occurred since the patient first began to experience memory problems.

Circle "Yes" only if the symptom(s) has been present in the last month. Otherwise, circle "No".

For each item marked "Yes":

a) Rate the SEVERITY of the symptom (how it affects the patient):
1 = Mild (noticeable, but not a significant change)
2 = Moderate (significant, but not a dramatic change)
3 = Severe (very marked or prominent, a dramatic change)

b) Rate the DISTRESS you experience due to that symptom (how it affects you):
0 = Not distressing at all
1 = Minimal (slightly distressing, not a problem to cope with)
2 = Mild (not very distressing, generally easy to cope with)
3 = Moderate (fairly distressing, not always easy to cope with)
4 = Severe (very distressing, difficult to cope with)
5 = Extreme or Very Severe (extremely distressing, unable to cope with)

Please answer each question carefully. Ask for assistance if you have any questions.

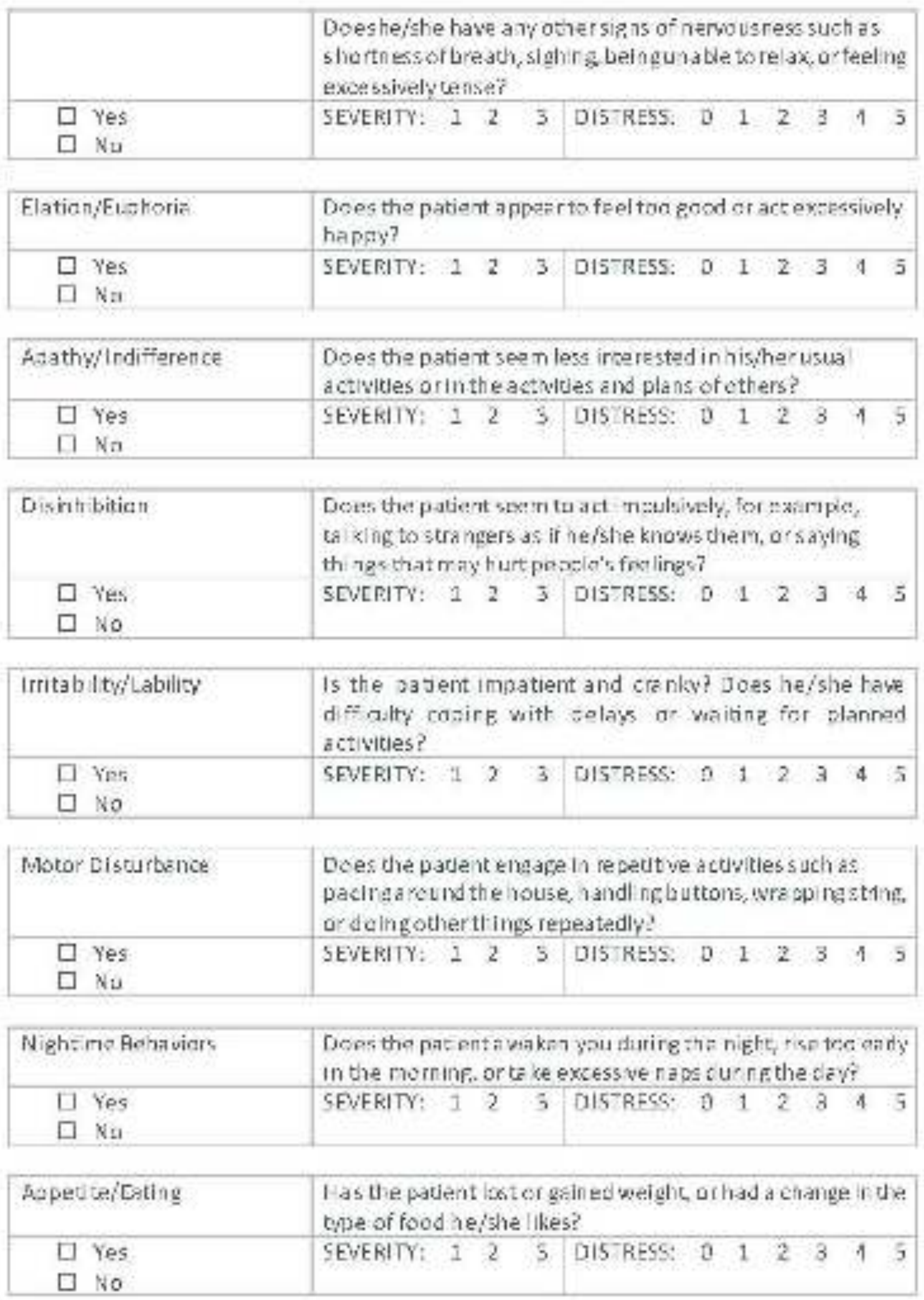
Delusions	Does the patient have false beliefs, such as thinking that others are stealing from him/her or planning to harm him/her in some way?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Hallucinations	Does the patient have hallucinations such as false visions or voices? Does he or she seem to hear or see things that are not present?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Agitation/Aggression	Is the patient resistive to help from others at times, or hard to handle?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Depression/Dysphoria	Does the patient seem sad or say that he/she is depressed?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Anxiety	Does the patient become upset when seperated from you?



	Does he/she have any other signs of nervousness such as shortness of breath, sighing, being unable to relax, or feeling excessively tense?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Elation/Euphoria	Does the patient appear to feel too good or act excessively happy?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Apathy/Indifference	Does the patient seem less interested in his/her usual activities or in the activities and plans of others?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Disinhibition	Does the patient seem to act impulsively, for example, talking to strangers as if he/she knows them, or saying things that may hurt people's feelings?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Irritability/Lability	Is the patient impatient and cranky? Does he/she have difficulty coping with delays or waiting for planned activities?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Motor Disturbance	Does the patient engage in repetitive activities such as pacing around the house, handling buttons, wrapping string, or doing other things repeatedly?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Nighttime Behaviors	Does the patient awaken you during the night, rise too early in the morning, or take excessive naps during the day?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

Appetite/Eating	Has the patient lost or gained weight, or had a change in the type of food he/she likes?	
☐ Yes ☐ No	SEVERITY: 1 2 3	DISTRESS: 0 1 2 3 4 5

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A.7. ZARIT (ENGLISH)

(see section A.2)

A.8. CASI (ENGLISH)

Carer's Assessment Of Satisfactions Index (CASI)

Caring is often a difficult and stressful task but for many carers there are also moments of personal satisfaction.

On the following pages are some statements which carers have made about those aspects of caring that they find satisfying. Please read each statement and then indicate how it applies to you.

Ratings:

X This doesn't tend to apply in my situation.

This applies to me. I find it provides:

0 No real satisfaction;

1 quite a lot of satisfaction;

2 a great deal of satisfaction.

1. Caring has allowed me to develop new skills and abilities.
2. The person I care for is appreciative of what I do.
3. Caring has brought me closer to the person I care for.
4. It's good to use small improvements in the person I care for.
5. I am able to help the person I care for reach their full potential.
6. I am able to repay the kindness of the person I care for.
7. Caring provides a challenging and stimulating job.
8. Despite all the problems, the person I care for doesn't grumble or moan.
9. It's nice to see the person I care for clean, comfortable and well turned out.
10. Caring has enabled me to fulfil my sense of duty.
11. I'm the sort of person who enjoys helping people.
12. I get pleasure from seeing the person I care for happy.
13. Knowing the person I care for the way I do means I can give better care than anyone else.
14. It helps to stop me from feeling guilty.
15. Caring has made me a better, less selfish person.
16. It's nice to feel appreciated by those family and friends I value.
17. Caring has strengthened close family ties and relationships.
18. It's good to help the person I care for overcome difficulties and problems.
19. It's nice when something I do gives the person I care for pleasure.

20. I am able to keep the person I care for out of an institution.

21. I feel that if the situation were reversed the person I care for would do the same for me.

22. I am able to ensure the person I care for is well fed and their needs tended to.

23. Caring has given me the chance to widen my interest and contacts.

24. Maintaining the dignity of the person I care for is important to me.

25. I am able to test myself out and overcome difficulties.

26. Caring is one way of showing my faith.

27. Caring has provided a purpose in life that I didn’t have before.

28. At the end of the day I know I’ll have done the best I could.

29. Caring is one way of expressing my love for the person I care for.

30. Caring makes me feel needed and wanted.

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A.9. SELF-EFFICACY (ENGLISH/GERMAN)

Scale based on:

Merrilees, J. J., Bernstein, A., Dulaney, S., Heunis, J., Walker, R., Rah, E., ... & Feuer, J. (2018). The Care Ecosystem: promoting self-efficacy among dementia family caregivers. Dementia, 1471301218814121.

Fortinsky, R. H., Kercher, K., & Burant, C. J. (2002). Measurement and correlates of family caregiver self-efficacy for managing dementia. Aging & mental health, 6(2), 153-160.

Self-efficacy for symptom management

1. I feel confident in my ability to manage problems the PwD has, like memory loss, wandering, or behavior problems.

2. I feel confident that I can manage future caregiving challenges.

3. I feel confident to manage my own emotions (e.g. frustration, guilt, anger) related to caring for for the PwD.

4. I feel confident to get resources that I need related to caring for the PwD

5. I feel confident in my abilities to engage the PwD in meaningful and purposeful activities

German:

1. Ich bin zuversichtlich, dass ich in der Lage bin, mit Problemen, wie Gedächtnisverlust, Herumirren, oder Verhaltensproblemen der Person mit Demenz umzugehen.

2. Ich bin zuversichtlich, dass ich zukünftige Herausforderungen in der Pflege bewältigen kann.

3. Ich bin zuversichtlich, dass ich meine eigenen Emotionen bezogen auf die Pflege von der Person mit Demenz (z.B. Frustration, Schuldgefühle, Wut) kontrollieren kann.

4. Ich bin zuversichtlich, dass ich Ressourcen die ich für die Pflege der Person mit Demenz brauche bekomme.

5. Ich bin von meiner Fähigkeit überzeugt, die Person mit Demenz in bedeutsame und sinnvolle Aktivitäten einzubinden.

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A.10. KNOWLEDGE SUBSCALE (ENGLISH/GERMAN)

Source:

Karlin, B. E., Young, D., & Dash, K. (2017). Empowering the dementia care workforce to manage behavioral symptoms of dementia: Development and training outcomes from the VOICE dementia care program. Gerontology & geriatrics education, 38(4), 375-391.

Likert scales for each item ranged from 1 to 7, with 1 = not at all knowledgeable, important, effective, useful, or confident and 7 = extremely knowledgeable, important, effective, useful, or confident. Higher scores on the scales reflect increased knowledge

Knowledge subscale (Dementia Information, Self-Care, and Communication Scale)

1. How knowledgeable are you about the signs, symptoms and causes of dementia?

2. How knowledgeable are you about the course and progression of dementia?

3. How knowledgeable are you about the impact of dementia and about maintaining realistic expectations?

4. How knowledgeable are you about effective verbal communication strategies with individuals with dementia?

5. How knowledgeable are you about effective non-verbal communication strategies with individuals with dementia?

6. How knowledgeable are you about self-care strategies and coping skills (e.g., relaxation training healthy caregiver thoughts) for reducing stress and improving caregiver well-being?

7. How knowledgeable are you about specific community resources for caregivers (e.g., specific information, referral and social support resources)?

8. How knowledgeable are you about behavioral (non-medication) approaches to managing challenging behaviors associated with dementia (e.g., agitation, vocalization, care refusal)?

German:

1. Wie viel Wissen haben Sie über die Anzeichen, Symptome und Ursachen von Demenz?

2. Wie viel Wissen haben Sie über den Verlauf und die Entwicklung von Demenz?

3. Wie sachkundig sind Sie hinsichtlich der Auswirkungen von und realistischen Erwartungen gegenüber Demenz?

4. Wie viel Wissen haben Sie über wirksame verbale Kommunikationsstratgien (z.B. Gesprächsstrategien) mit Menschen mit Demenz.

5. Wie viel Wissen haben Sie über effektive non-verbale Kommunikationsstratgien (z.B. Berührung, Körperhaltung) mit Menschen mit Demenz.

6. Wie viel Wissen haben Sie über Selbstpflege-Strategien und Bewältigungskompetenzen um Stress zu reduzieren und das Wohlbefinden von Pflegepersonen zu erhöhen (z.B. Entspannungstraining, konstruktive Gedanken bezüglich der Pflege).

7. Wie viel Wissen haben Sie über die spezifischen Angebote für Pflegepersonen in Ihrer Gemeinde (z.B. bestimmte Ressourcen für Informationen, Überweisungen und soziale Unterstützung)?

8. Wie viel Wissen haben Sie über verhaltensorientierte (nicht-medikamentöse) Ansätze zur Bewältigung von herausfordernden Verhalten im Zusammenhang mit Demenz (z.B. körperliche und verbale Aufregung, Pflegeverweigerung)?

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A.11. GLOBAL ASSESSMENT (ENGLISH/GERMAN)

Global Assessment of Perceived Competence

(4-point scale: very much, somewhat, just a little, and not at all.)

How much do you:

(1) believe that you know about how to deal with a very difficult situation;

(2) feel that all in all, you’re a good caregiver’.

German:

Sehr – etwas – nur ein bisschen – gar nicht

Wie sehr glauben Sie, dass Sie wissen, wie man mit einer sehr schwierigen Situation umgeht?

Wie sehr haben Sie das Gefühl, dass Sie im Großen und Ganzen eine gute Pflegeperson sind?

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A.12. IPIP (ENGLISH/GERMAN)

Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Indicate for each statement whether it is 1. Very Inaccurate, 2. Moderately Inaccurate, 3. Neither Accurate Nor Inaccurate, 4. Moderately Accurate, or 5. Very Accurate as a description of you.

Item English	**Item German**	**Loading**
Am the life of the party.	Ich bringe Leben in eine Party.	E
Sympathize with others' feelings.	Ich kann die Gefühle anderer nachempfinden.	A
Get chores done right away.	Ich erledige Hausarbeit sofort.	C
Have frequent mood swings.	Ich habe häufige Stimmungsschwankungen.	N
Have a vivid imagination.	Ich habe eine lebhafte Vorstellungskraft.	I
Don't talk a lot.	Ich rede nicht viel.	E-
Am not interested in other people's problems.	Ich interessiere mich nicht für die Probleme anderer Leute.	A-
Often forget to put things back in their proper place.	Ich vergesse oft, Dinge wieder an den richtigen Platz zurück zu bringen.	C-
Am relaxed most of the time.	Ich bin die meiste Zeit entspannt.	N-
Am not interested in abstract ideas.	Ich interessiere mich nicht für abstrakte Ideen.	I-
Talk to a lot of different people at parties.	Auf Parties unterhalte ich mich mit vielen verschiedenen Leuten.	E
Feel others' emotions.	Ich kann die Gefühle anderer nachfühlen.	A
Like order.	Ich mag Ordnung.	C
Get upset easily.	Ich gerate leicht aus der Fassung.	N
Have difficulty understanding abstract ideas.	Ich habe Schwierigkeiten abstrakte Ideen zu verstehen.	I-
Keep in the background.	Ich halte mich im Hintergrund.	E-
Am not really interested in others.	Ich interessiere mich nicht wirklich für andere.	A-
Make a mess of things.	Ich verpfusche die Dinge.	C-
Seldom feel blue.	Ich fühle mich selten traurig.	N-
Do not have a good imagination.	Ich habe keine gute Vorstellungskraft.	I-

E= Extraversion, A=Agreeableness, C=Conscientiousness, N=Neuroticism, I=Openness, - = reverse scored item

Original items: https://www.researchgate.net/publication/7014171_The_Mini-IPIP_Scales_Tiny-yet-Effective_Measures_of_the_Big_Five_Factors_of_Personality

German translation: https://ipip.ori.org/German100-ItemBig-FiveFactorMarkers.htm

Remark: This scale is included to this document for project documentation purposes. Usage for other purposes is subject to the IPR of the instrument owners.

A.13. PERCEIVED KNOWLEDGE X APP (GERMAN/ROMANIAN)

1 DE: Es ist wahrscheinlich, dass die Applikation SUCCESS zu einem besseren Verständnis des Umgangs mit Schwierigkeiten im Zusammenhang mit Aktivitäten des alltäglichen Lebens von Menschen mit Demenz führt.

1 RO: Aceasta aplicatie poate creste cunoștințele / înțelegerea cu privire la gestionarea dificultatilor legate de activitățile de zi cu zi ale persoanelor cu dementa.

2 DE: Es ist wahrscheinlich, dass die Applikation SUCCESS zu einer Änderung der Einstellungen über den Umgang mit Schwierigkeiten im Zusammenhang mit Aktivitäten des alltäglichen Lebens von Menschen mit Demenz führt.

3 RO: Această aplicație poate schimba atitudinea față de gestionarea dificultăților legate de activitățile de zi cu zi ale persoanelor cu demență.

APPENDIX E: INTERVIEW GUIDELINES TRIAL 2

A.1. INTERVIEW GUIDELINE SEMI-STRUCTURED INTERVIEW T1 (GERMAN/ENGLISH)

Variable	Questions	
Care situation	**In wie fern gab es seit Studienbeginn eine Änderung in Ihrer Pflegesituation die nicht mit SUCCESS zusammenhängt, z.B. zusätzliche Pflegekraft, Reduzierung der Stunden, Änderung im Schweregrad der Demenz?**	**In how far has there been a change in your care situation since the start of the study that is not related to SUCCESS, e.g. additional caregiver, reduction of hours, change in the severity of dementia?**
Actual time needed for care activities	**Wenn Sie an konkrete Aktivitäten des täglichen Lebens denken bei denen Sie die Person, die Sie pflegen, unterstützen, z.B. die morgendliche Badezimmerroutine oder das Mittagessen, können Sie eine Änderung feststellen in den letzten 4 Wochen?** Was hat sich hier konkret geändert? Haben Sie zu diesem Thema die SUCCESS App genutzt?	**If you think of specific activities in daily life where you support the person you care for, such as the morning bathroom routine or lunch, do you notice a change in the last 4 weeks, e.g. in the amount of time it takes?** What exactly changed? Did you use the SUCCESS App in regard to this topic?
	Wenn Sie nun an die App SUCCESS denken, was mögen Sie am meisten an der App?	**Now, when you think about the app SUCCESS, what do you like best about the app?**
	Was mögen Sie am wenigsten an der App?	**What do you like least about the app?**
TAM: Perceived Usefulness	**Als Sie die App zum ersten Mal gesehen haben, was war Ihre Meinung über die Fähigkeit der App SUCCESS, Ihnen in einer bestimmten Situation zu helfen?** **Wie sieht es jetzt aus?** **Können Sie mir von einer Situation erzählen, in der Ihnen SUCCESS geholfen hat?** Was war die Situation, die Sie erlebt haben (z.B. Nachtwandern)?	**When you saw the app for the first time, what was your opinion regarding the ability of the app SUCCESS to help you in a certain situation?** **What about now?** **Please tell me about a situation in which SUCCESS helped you.** What was the situation you experienced (e.g. night-time wandering)?

	Welche Funktionen, Elemente und Lernmodi haben Ihnen geholfen? Wie hat sich die Verbesserung gezeigt? **Wann ist Ihnen in den Sinn gekommen, die SUCCESS App für [die zuvor genannte Situation] zu nutzen?** (von Interesse: kam die Idee sofort, später wahrgenommene Nützlichkeit oder wahrgenommene Nützlichkeit bei Auftreten eines Problems) **Welche anderen Aspekte der App sind nützlich?** **Welche Aspekte sind nicht sinnvoll?**	Which function, elements and learning modes helped you? What was the quality of improvement)? **When did it occur to you that you could use SUCCESS to solve [the prior stated situation]?** (of interest: later perceived usefulness or perceived usefulness when problem occurred) **What other aspects are useful?** **What aspects are not useful?**
	Unterm Strich, haben Sie SUCCESS für Sie als Person als nützlich empfunden?	**Bottom line, did you experience SUCCESS as useful for you specifically?**
TAM: PEOU	**Wie finden Sie sich in der App zurecht?** Welche Schwierigkeiten hatten/haben Sie? **In wie fern hat sich das geändert?**	**How do you find your way around in the app?** What difficulties did/do you have? **In how far did that change?**
Tam: OUT/ Content	**Um welche Themen sollten die Inhalte der App erweitert werden? (=neue Themen)** Fehlt Ihnen zu einem bestimmten Thema Information in der App? Haben Sie schon einmal nach einem Thema in der App gesucht aber nichts dazu gefunden? **Zu welchen Themen, die schon vorhanden sind, sollten wir noch mehr Informationen bereitstellen?**	**Which topics should be added to the contents of the app (=new topics)?** Are you missing information on a certain topic in the app? Did you look for a topic in the app and didn't find any information? **On which topics that already exist should we provide more information?**

	Bitte senden Sie mir aus der App das Nutzungsprotokoll zu (wenn nötig, anleiten wie). Um Gmail-Adressen mit denen NutzerInnen in der App angemeldet zu sammeln.	**Please send the logfile via the App (if necessary instruct how to).** To collect Gmail adresses with which users are logged into the app.
	Haben Sie den zweiten Fragebogen bereits ausgefüllt? TeilnehmerIn sollte den Fragebogen bereits ausgefüllt haben, falls nicht um baldige Bearbeitung bitten.	**Did you already complete the second survey?** The participant should already have filled in the questionnaire, otherwise ask for the questionnaire to be completed asap.

A.2. INTERVIEW GUIDELINE SEMI-STRUCTURED INTERVIEW T2 (GERMAN/ENGLISH)

Variable	Questions	
Care situation	**In wie fern gab es seit dem letzten Interview eine Änderung in Ihrer Pflegesituation die nicht mit SUCCESS zusammenhängt,** z.B. Änderung im Ausmaß der Pflege, Änderung im Schweregrad der Demenz?	**In how far has there been a change in your care situation since the last interview, that is not related to SUCCESS,** e.g. change in extend of care, change in the severity of dementia?
Avatar Roleplay	**Haben Sie bereits ein Avatar Rollenspiel gemacht?** **Wenn ja, welche Avatare haben Sie verwendet und weshalb?** Weiblich oder Männlich oder beide, wussten Sie dass Sie diese ändern können?) **Wenn Sie mit dem Avatar Situationen in Rollenspielen durchspielen, denken Sie dann an die Person, die Sie pflegen? Ähneln sich die beiden?** (Nachfragen welche Aspekte: Verhalten, Aussehen)	**Have you already played through an Avatar role-play?** **If yes, wich Avatars did you use and why did you choose these?** **When you play through a situation in the avatar-based roleplays, do you think of the person you care for? Do they resemble each other?** (Ask about the similar aspects: behavior, looks)

	Denken Sie, dass die Avatare Klischees über Menschen mit Demenz verstärken könnten? Können Sie das genauer erklären?	**Do you think avatars might reinforce an inaccurate picture of people with dementia?** Can you explain that in more detail?
	Wenn nein, **wüssten Sie wo sie die Rollenspiele finden? Weshalb haben Sie noch keines gemacht?** Welche Aspekte „wären nichts für sie", (Ziel ist herauszufinden was das Hindernis ist das Rollenspiel durchzuführen.)?	If no, **would you know where to find the role-plays?** **Why haven't you done it yet?** Which Aspects are "not for you"? (Aim is to try and find out what hinders users to do the roleplays, e.g. expectations)
Avatar Lecture	**Haben Sie bereits einen Avatar Vortrag gehört?** Wenn nein, **wüssten Sie wo sie die Vorträge finden? Weshalb noch nicht gemacht?** **Wenn ja, welche Avatare haben Sie verwendet und weshalb?** **Stellen Sie sich vor sie müssten jemandem den Unterschied zwischen einem Avatar Vortrag und einem Video mit einem aufgezeichneten Vortrag erklären. Was würden Sie sagen?** **Welche Eigenschaften würden sie dem Avatar aus den Vorträgen zuschreiben?** z.B. kompetent, belehrend, freundlich? Wie können wir die Avatare verbessern?	**Have you already listened to an Avatar lecture?** If not, **do you know where to find the lectures? Why not yet done?** **If so, which avatars did you use and why?** **Imagine you would have to explain to someone the difference between an avatar lecture and a video with a recorded lecture. What would you say?** **With which attributes would you describe the lecture Avatar?** e.g. competent, instructive, kind How can we improve the avatars?
CASI:	**Viele Menschen sagen, dass jemanden zu pflegen auch schöne**	**Many people say that caring for someone can also have bright**

Feststellen ob Änderung in der Zufriedenheit auf SUCCESS zurückzuführen ist.	**Seiten haben kann. In wie weit konnte SUCCESS Ihnen bei diesen schönen Seiten helfen?** Wie war die Situation vorher und wie hat SUCCESS Sie unterstützen können. Oder Warum nicht?	**sides. To what extent could SUCCESS help you with these positive aspects?** How was the situation before and how did SUCCESS support you? Or why not?
CASI: Purpose	**Eine dieser Seiten ist dass Menschen darin einen Sinn im eigenen Leben aber auch dem der Person mit Demenz finden können.** **In wie weit konnte SUCCESS Ihnen bei diesem positiven Aspekt helfen?** Wie war die Situation vorher und wie hat SUCCESS Sie unterstützen können. Oder Warum nicht?	**One of these sides is that people can find a purpose in their own life but also that of the person with dementia.** **To what extent could SUCCESS help you with this positive aspect?** How was the situation before and how did SUCCESS support you? Or Why not?
CASI: Pleasure Feststellen ob Änderung in der Beziehung zw PwD und CoPwD auf SUCCESS zurückzuführen ist.	**In wie weit konnte SUCCESS Ihnen dabei helfen die Pflegesituation so zu gestalten dass sie mit der PwD freudige Momente erleben konnten?** Z.B. kleine Aktivitäten. Gibt es Aspekte der App die direkt dazu beigetragen haben dass die PwD mit ihrer Unterstützung Freude empfindet?	**To what extent has SUCCESS been able to help you to shape the care situation in such a way that you yourself could experience pleasant moments with PwD?** For example, small activities. Are there any aspects of the app that have directly contributed to PwD's enjoyment?
CASI: Appreciation	**Inwiefern fühlen Sie sich wertgeschätzt in dem was Sie für die Person mit Demenz tun?** Wie zeigt sich diese Wertschätzung? **Konnte SUCCESS Ihnen dabei helfen Momente zu schaffen in denen sie sich wertgeschätzt fühlen?**	**Regarding the things you do for the person with dementia, to what extent do you feel appreciated?** How does this appreciation manifest itself? **Could SUCCESS help you create moments where you feel appreciated?**
Updates	**Es wird Updates geben. ->App im app-store updaten**	**There will be updates -> update App in PlayStore**

	Haben Sie noch etwas hinzuzufügen?	**Do you have anything to add?**
	Bitte senden Sie mir aus der App das Nutzungsprotokoll zu (wenn nötig, anleiten wie).	**Please send the logfile via the App (if necessary, instruct how to).**
	Haben Sie den dritten Fragebogen bereits ausgefüllt? **TeilnehmerIn sollte den Fragebogen bereits ausgefüllt haben, falls nicht um baldige Bearbeitung bitten.**	**Did you already complete the third survey?** **The participant should already have filled in the questionnaire, otherwise ask for the questionnaire to be completed asap.**

A.3. INTERVIEW GUIDELINE SEMI-STRUCTURED INTERVIEW T3 (GERMAN/ENGLISH)

Variable	Questions	
	Denken Sie an die letzten sechs Monate in denen Sie an dieser Studie teilgenommen haben: Was war Ihr generelle Erfahrung im Zusammenhang mit der Applikation SUCCESS? • Welche Gefühle hat die App bei Ihnen ausgelöst?	**Please think back to the last six months (in which you've participated in the survey): what was your overall experience with the SUCCESS app?** • How did the app make you feel?
	Bitte beschreiben Sie Ihr Nutzungsverhalten der App über die letzten sechs Monate verändert? • Z.B. am Anfang motiviert diese auszuprobieren und dann nicht mehr daran interessiert. • In welchen Situationen haben Sie die App genützt/an das Nutzen der App gedacht? • Wie lange und wie oft haben Sie die App genutzt? (z.B. täglich/wöchentlich) • Welche Erwartungen hatten Sie? (vor der Nutzung) • Falls aufgehört zu benutzen: Warum? Gründe?	**How did your use of the app change over the last six months?** • E.g. first motivated to try it and then not interesting anymore. • In what situations did you use/think of using the app? • Length and frequency of use? • Expectations? • If stopped using the app: Why did you stop using the app/ reasons for that?

	Was war der erinnerungswürdigste Moment den Sie bei der Nutzung von der App hatten?	**What was the most memorable experience you had using SUCCESS?**
	Wie hat sich die Pflegesituation über die letzten sechs Monate geändert? • Pflegekontext? • Die Person um die Sie sich kümmern • Einfluss von SUCCESS auf den Pflegekontext? • Einfluss von SUCCESS auf die Person?	**How has the care situation changed over the past six months?** • The care context? • The person you are caring for? • Impact of SUCCESS on context? • Impact of SUCCESS on person?
	Inwiefern war die App nützlich für Sie? • Welche Aspekte der App haben Ihnen geholfen? • Welche nicht? • Haben Sie Dinge gelernt? Was? (z.B. mehr Selbstbewusstsein, Selbstwirksamkeit?) • Gesundheit → krankheitsbedingter Ausfall?	**How was the app useful to you?** • What aspects of the app helped you? • What aspects did not help you? • Was there some knowledge gain? What did you learn? (e.g. more confidence, self-efficacy) • Health → sick leave?
	Stellen Sie sich vor Sie hätten eine*n Freund*in, welcher vor kurzer Zeit auch begonnen hat sich um eine Person mit Demenz zu kümmern und diese*r fragt Sie nach SUCCESS, was würden Sie ihm*ihr sagen? • Wie würden Sie SUCCESS erklären?	**Imagine you had a friend that recently started to care for a person with dementia and he/she asks you about SUCCESS, what would you tell him/her?** • How would you explain SUCCESS?
	Für wen, denken Sie, ist SUCCESS am besten geeignet? • Denken Sie, Sie sind Teil dieser Gruppe? • Für wen, denken Sie, ist SUCCESS nicht geeignet?	**Who do you think SUCCESS is most suitable for?** • Would you think you are part of that group? • For whom would it not be suitable?

	Würden Sie SUCCESS anderen Menschen empfehlen, wenn diese dafür zahlen müssten? • Wenn ja: ○ Warum? ○ Einmalige Zahlung oder jedes Monat ○ Wie viel? • Wenn nicht: Was müsste gemacht werden, dass eine Bezahlung gerechtfertigt ist?	**Would you recommend other people to use the app, even if they had to pay for it?** • If okay ○ Why? ○ Once vs. every month? ○ How much? • If not: what has to be done in order to justify payment?
	Was denken Sie über Ihre Teilnahme an der Studie? • Was denken Sie darüber, dass die Studie jetzt endet?	**How do you feel about having taken part in the trial?** • And how do you feel about the study ending?
	Haben Sie noch etwas hinzuzufügen?	**Do you want to add something?**
	Bitte senden Sie mir aus der App das Nutzungsprotokoll zu (wenn nötig, anleiten wie).	**Please send the logfile via the App (if necessary, instruct how to).**
	Haben Sie den letzten Fragebogen bereits ausgefüllt? TeilnehmerIn sollte den Fragebogen bereits ausgefüllt haben, falls nicht um baldige Bearbeitung bitten.	**Did you already complete the last survey?** The participant should already have filled in the questionnaire, otherwise ask for the questionnaire to be completed asap.
	(De-Briefing)	(De-briefing)