

APPENDIX G.



Code	Sub-Code	Comment
○ Anna		
In Vivo	● "not a hobby person"	everyday life is centered around work
	● you're looking for ways that you can stretch time and live longer ● keep a cap on my emotions	
Profession	○ profession - photographer	record cultural heritage language barrier
Personality	○ personality - suppressed emotional	
	○ personality - tamed and tolerant in conversation with friends	
Story	○ [story] - a third generation photographer	
	○ [story] - flexible work life and full of coincidences and 'whims'	
	○ [story] - keep a cap on the emotion in funerals	
Capability Approach	● [affiliation] - how turn a Facebook friend into a real friend	begin with coffee chat happen to like each other keep in touch precondition - live in the same city and easy to
	● [affiliation] - mediate with a friend through messenger	
	● [bodily health] - not sleep well (use melatonin)	
	● [bodily integrity] - part of job	
	● [emotion] - be with and support the loved	
	● [emotion] - suppress negative emotion to avoid upsetting friends	
	● [senses, imagination, thoughts] - try to be neutral when speaking publicly	
	● [other spieces] - important to feel small in the nature	
	● [practical reason] - certain standart for things in work	
Scenario	● [practical reason] - reflection on the best solutions to solve conflicts	
	● [scenario] - a fitbit that can calculate the food intake	
	● [scenario] - earphone - walking on the street and remind of danger	everyone's accosiation of scenarios are quite different, which are deeply rooted in their own life experience (when and how they use the object in their life)
	● [scenario] - get notified when reach 10000 steps	
	● [scenario] - jewelry:auto-changing color according to the clothes	
	● [scenario] - project a larger photo to the glasses to break the restriction of the screen	
	● [scenario] - smart gloves(gesture-controlled) which can send help signals	finger tip wearables
	● [scenario] - smart shoes analyzing how you walk	

Challenge	● challenge - loneliness	old friends die not working > not meet new people less physical contact physical contacts not always lead to friendship lack of knowledge of using social media
	● challenge - people get old and friends die>loneliness	
	● challenge - elderly people don't work > not meet new people > loneliness	
Desire/ Needs	● desire - function - count steps, weight, monitor heartbeats, mood recording	
	● desire - live in health longer	
	● need - mind protein intake as a vegetarian	
	● need - would like to have a cleaning robot to save efforts in cleaning	
Process	○ process - tapping the finger tip to perform the gesture used to send SOS signals	
Product	● product -laptop	
Value	● value - much stuff people post on social media is crap	
	● value - physical contacts not always lead to friendship	
	● value - social media can still be helpful to keep in touch with real friends	
	● value - take work serious and devoted to work	
○ Emily		
In Vivo	● it keeps me young	
	● nobody wants to talk to you anymore	
Hobby/ Interest	○ hobby - choir (stop because of covid)	
	○ hobby - photography	
	○ interest - interiors design	
	○ interest - photo editing	
	○ interest - politics	
Talent	○ talent - interiors design	
Personality	○ personality - creative	
	○ personality - explorative	
	○ personality - follow interior design trends	
	○ personality - life-long learner	
	○ personality - social	
	○ personality - use phone as a communication tool more (in contrast with husband)	
Story	○ [story] - a recipe book made with the collective efforts of a club	
	○ [story] - be forced to have meetings online	at first difficult but later found it convenient
	○ [story] - hard to reflect together in a book club	

	○ [story] - to have the reading club meeting offline to involve everybody	
	○ [story] - using a special program to organize party time	
Capability Approach	● [affiliation] - book club	
	● [affiliation] - cook and eat with friends	
	● [affiliation] - elderly people network proposing to the municipality	
	● [affiliation] - intellectual eating club	
	● [affiliation] - photography club	
	● [bodily health] - follow a tv program for elderly people to do exercise	
	● [bodily integrity] - travel choices limited by physical states	
	● [emotion] - frequent family visit and online contact	
	● [emotion] - safari park visit with family	
	● [play] - play bridge card	
	● [play] - watching tv netflix	
	● [practical reason] - strong judgement on what's good/bad	
	● [senses, imagination, thoughts] - intellectual discourses with friends	
● [senses, thoughts, imagination] - reading news		
Scenario	● [scenario] - visit virtual museums online for elderly people	
	● [scenario] - visit virtual museums online for elderly people (2)	
	● [scenario] - when physical conditions decline, using Internet to know about the world outside	
Challenge	● challenge - although willing to but hard to keep up with the development (e.g. softwares)	how to use the cloud to store photos takes time to learn how to use some apps or
	● challenge - declined memory	need to relearn remember where the stored photos are
	● challenge - declined physical conditions	
	● challenge - need to change the ways of travel (husband's preference, bad eyesight)	used to sail and go camping and outdoor
	● challenge - use software to edit photos	
	● change - digitalization of service diminishes the human contact	
	● change - online meetings are much more than before	
	● desire - have a smart watch which can be integrated with various functions	concerned about the legibility when eyesight is not good want to have haptic
● desire - follow the trends		

Desire/ Needs	● desire - have immersive glasses to experience virtual reality	
	● desire - know more about other cultures	
	● desire - like to change (in contrast to her husband)	
	● desire - missing the physical contacts	
	● desire - need to exercise more	
	● desire - planning for dreamed trips	
	● desire - privacy - not want others know the self-reflection	
	● desire - to keep up with the trends keeps me young	
Process	○ process - debating over whether certain functions are useful or not	constantly monitoring bodily state (e.g. glucose) VUI control home not necessary unless you have got into that situations
	○ process - Voice User Interface	
Product	● product - annoyed about the compulsory use of online tools	
	● product - ebook reader	
	● product - google	
	● product - intimidated to use cameras	
	● product - iPad	
	● product - only use ebook reading on holiday	
	● product - physical books rather than ebooks	
	● product - smart watch	
	● product - using certain programs by recommendation	
Value	● value - woken up by smart home devices	
	● value - being forced online gathering also brings new possibilities	
	● value - old people need to know how to use the computer and Internet	
	● value - online interactions with the organizations can be efficient but also cold	
	● value - online service should be an option but not the only option	
	● value - provide help and support rather than just being sad	
	● value - reading about new information keeps people alert and creative	
	● value - the online meeting tools are not inclusive enough for people who're visually or hearing impaired	
	● value - VUI can be useful for elderly people	
	● value - willing to use a cleaning robot	
○ John		
	● [memo] - anywhere on the body is fine as long as it makes sense	

Memo	● [memo] - changing the form and shapes might help	minimalize to make it less noticeable stylish shapes
	● [memo] - medium	old people are used to certain traditional mediums (e.g. manual customer service) than
	● [memo] - shame caused by certain products ● [memo] - sth physical tangible familiar	
In vivo	● Like people are walking with a cane.	
	● they want to to look young and to look clean, vital and not old. I don	
	● Not click, not not so fast.	
	● under control	
	● prepared for being old ● added value	
Personality	○ personality - altruistic	
	○ personality - care for equity	
	○ personality - care for social justice	
	○ personality - expressive	
	○ personality - follow technology trends	
	○ personality - independent ○ personality - leadership ○ personality - resourceful	
Environment	○ environment - well-informed	
Hobby/ Interest	○ hobby - reading	
	○ interest - American politics ○ interest - why people behave so	
Talent	○ talent - propose to the municipality ○ talent - understand people's responses	
	Story	○ [story] - a young influencer on twitter
○ [story] - an exhibition in Leeds		
○ [story] - fulfill personal value through helping small organizations		
○ [story] - immediately decided to use the hearing aids when he found he needed ○ [story] - no physical menu restaurant		
Capability Approach	● [bodily health] - anticipated physical declination	
	● [bodily health] - breakfast	
	● [bodily health] - clean up once a week	
	● [bodily health] - diabetes	
	● [bodily health] - grocery	
	● [bodily health] - health check	
	● [bodily health] - mind nutrients, sugar, estimate amount, not calculation, health check	
	● [bodily integrity] - sit in first class	
	● [control over one's environment] - should let voice be heard by the municipalities	
	● [emotion] - family union on holidays, joking and laughing	

	<ul style="list-style-type: none"> • [play] - reading, movies, museums, eating out • [senses, imagination, thoughts] - check messages • [senses, imagination, thoughts] - follow influencer on twitter 	
	<ul style="list-style-type: none"> • [senses, imagination, thoughts] - reading news on newspaper and twitter 	
Scenario	<ul style="list-style-type: none"> • [scenario] - aging in place 	aging in place can be difficult effective company is
	<ul style="list-style-type: none"> • [scenario] - an old lady who loves watching tv becomes sad when the tv is not functioning 	dysfunction scenarios old people have the mediums they are more
	<ul style="list-style-type: none"> • [scenario] - light leading to the bathroom for dementia people 	
	<ul style="list-style-type: none"> • [scenario] - living alone falling down send signals 	confirm before sending signals
	<ul style="list-style-type: none"> • [scenario] - make gerontology more accessible by making it part of the insurance 	
	<ul style="list-style-type: none"> • [scenario] - mass production lowers the cost 	
	<ul style="list-style-type: none"> • [scenario] - mood predict/monitoring (and let friends or family know) 	
	<ul style="list-style-type: none"> • [scenario] - online banking which is not accessible for everyone 	
	<ul style="list-style-type: none"> • [scenario] - pay the bill with apple pay on the watch 	Impressed by the smooth paying process Trigger the desire to have the same easy and efficient experience
	<ul style="list-style-type: none"> • [scenario] - take care of dementia people 	tiring jobs for care givers (24/7)
	<ul style="list-style-type: none"> • [scenario] - using online tools to unite elderly people who live alone and help each other 	
	<ul style="list-style-type: none"> • [scenario] - voice control tv remote • [scenario] function - lovely reminder of certain daily events (e.g. not going to the music concert for one year) 	
	Avoid	<ul style="list-style-type: none"> • avoid - hearing aids like a cane which brings shame
Desire/Needs	<ul style="list-style-type: none"> • desire - like the mood-light apparatus 	
	<ul style="list-style-type: none"> • need - safety at home for people with dementia 	
Process	<ul style="list-style-type: none"> ○ process - (performing checking the smart watch now and then hearing or not hearing the notification sounds) 	annoyed by the persistent notifications
	<ul style="list-style-type: none"> ○ process - performing people hide their hearing aids to change batteries 	
	<ul style="list-style-type: none"> • product - a notebook with a list documenting nephews' updates 	regard family connections important
	<ul style="list-style-type: none"> • product - apple watch 	not want too many noises from the watch
	<ul style="list-style-type: none"> • product - bike rather than e-bike 	
	<ul style="list-style-type: none"> • product - blood sugar monitor 	

Product	<ul style="list-style-type: none"> • product - cleanin robot (not necessary) • product - comparison between apple watch and fitbit 	
	<ul style="list-style-type: none"> • product - ebike = status symbol • product - family influence > product use 	what other family members use influence his
	<ul style="list-style-type: none"> • product - function - voice control(+) • product - hearing aids 	people feel shameful to wear them
	<ul style="list-style-type: none"> • product - instagram - for family and friends • product - iPhone 14 & Apple watch • product - notify care givers in emergent situations 	the care givers can be relieved (Juan) associated to the story of demantia old lady
	<ul style="list-style-type: none"> • product - remote control lights/music/tv(-) • product - seek after added value • product - smart TV and smart remote control • product - smartphone • product - twitter • product - vacuum cleaner • product - whatsapp (family&friends) 	send photos not emails or telephone
	<ul style="list-style-type: none"> • product - zoom - family zoom meeting 	nice to still have the chance to meet online but not the best experience
	<ul style="list-style-type: none"> • product/system - smart home • product/system - using iphone with apple watch 	
	<ul style="list-style-type: none"> • value - [technology] - interactions shouldn't always be clicking around • value - approve of the whole apple system • value - attitude - doubt and concerned about the security • value - convenience breeds laziness • value - customized technology for each individual • value - data sharing only to necessary people is fine • value - impolite to be distracted by the smart watch • value - inclusivity & accessibility > easy to be supported by the government • value - information helps form opinions and worldviews • value - information helps stimulate minds • value - make information more accessible • value - not like to be interrupted • value - not use overqualified technology • value - online tools make connecting with people easier, life more convinient • value - open to different possibilities 	beneficial for coping with health issues

Value	<ul style="list-style-type: none"> value - people need to be taught about how to use certain smart devices 	
	<ul style="list-style-type: none"> value - persuaded by others 	
	<ul style="list-style-type: none"> value - politics influence policies 	
	<ul style="list-style-type: none"> value - practicalism 	
	<ul style="list-style-type: none"> value - see functions as the main reason for buying 	goal: be informed of the physical state feel under control save the effort to go for health check for every 3 months
	<ul style="list-style-type: none"> value - some elderly people refuse to be old 	some wish to stay young forever some are ashamed of needing tools to function normally
	<ul style="list-style-type: none"> value - technology as a tool to support each other 	
	<ul style="list-style-type: none"> value - technology should be easy to use 	
	<ul style="list-style-type: none"> value - technology should be inclusive (everyone should have access to it) 	
	<ul style="list-style-type: none"> value - technology should be slower to be more accessible 	
	<ul style="list-style-type: none"> value - the functions the product has and the design is what matters but not where it's used 	
	<ul style="list-style-type: none"> value - use it only when necessary value - use your own strength when possible 	
	○ Robert	
Memo	<ul style="list-style-type: none"> [memo] - shame caused by certain disease 	
	<ul style="list-style-type: none"> [memo] - the sin of honest and constant recording 	
	<ul style="list-style-type: none"> [memo] - wearable can be an implicit way of stating 	
In vivo	<ul style="list-style-type: none"> distance 	
	<ul style="list-style-type: none"> eye opener 	
	<ul style="list-style-type: none"> hidden meaning 	
	<ul style="list-style-type: none"> Also, you have to, when you don't understand something, it takes some 	
	<ul style="list-style-type: none"> other perspective The Future of yesterday 	
Hobby/ Interest	<ul style="list-style-type: none"> hobby - gardening 	
	<ul style="list-style-type: none"> interest - history, association, how and why people think in certain way 	
Personality	<ul style="list-style-type: none"> personality - deep thinker 	
	<ul style="list-style-type: none"> personality - growth mindset 	
	<ul style="list-style-type: none"> personality - optimistic 	
Story	<ul style="list-style-type: none"> [story] - a friend distracted by Google glasses 	
	<ul style="list-style-type: none"> [story] - a girlfriend interested in astrology 	
	<ul style="list-style-type: none"> [story] - a letter pen pal 	
	<ul style="list-style-type: none"> [story] - a life-long recording of life (enzensberger) 	
	<ul style="list-style-type: none"> [story] - almost an auto-reply to an email of a friend's death 	
	<ul style="list-style-type: none"> [story] - clumsy body modification of last century 	

	<ul style="list-style-type: none"> [story] - cows as real cows not commodities 	
	<ul style="list-style-type: none"> [story] - spontaneous travel 	
	<ul style="list-style-type: none"> [story] - the evolution of typing tools 	
Capability Approach	<ul style="list-style-type: none"> [other species] - inhuman way to treat live stock and poultry 	
	<ul style="list-style-type: none"> [other species] - whales' special way of sleeping 	
	<ul style="list-style-type: none"> [other species] - being connected to the nature and wilderness to feel small 	
	<ul style="list-style-type: none"> [senses, imagination, thoughts] - at least to be informed about surroundings 	
	<ul style="list-style-type: none"> [senses, imagination, thoughts] - interview artists and writing about exhibitions 	
Scenario	<ul style="list-style-type: none"> [scenario] - chronicle disease 	
	<ul style="list-style-type: none"> [scenario] - heart condition - send help signals 	
	<ul style="list-style-type: none"> [scenario] - IoT service system 	
	<ul style="list-style-type: none"> [scenario] - monitor the state of elderly people and inform children to assure them 	
	<ul style="list-style-type: none"> [scenario] - people with diabetes implicitly show their state via wearables 	
Avoid	<ul style="list-style-type: none"> avoid - information overload 	
Process	<ul style="list-style-type: none"> process - pointing one spot on the jaw 	
Product	<ul style="list-style-type: none"> product - arms or internally placed wearables 	
	<ul style="list-style-type: none"> product - conductive gloves to tap on phones 	
	<ul style="list-style-type: none"> product - facebook, twitter 	
Value	<ul style="list-style-type: none"> value - dressing code should be aligned with the age 	
	<ul style="list-style-type: none"> value - elderly people should instead focus on what new things to learn 	
	<ul style="list-style-type: none"> value - embrace it as what it is 	
	<ul style="list-style-type: none"> value - IM apps give us less time to respond resulting in shallowness 	
	<ul style="list-style-type: none"> value - information helps understand what's happening 	
	<ul style="list-style-type: none"> value - life accelerated by technology 	
	<ul style="list-style-type: none"> value - modern technology makes people more impatient 	
	<ul style="list-style-type: none"> value - most elderly people focus on what they are losing 	
	<ul style="list-style-type: none"> value - no use to compare now and the past 	
	<ul style="list-style-type: none"> value - not ethical to register everything (might not want to relive that) 	
	<ul style="list-style-type: none"> value - not judge 	
	<ul style="list-style-type: none"> value - people should have the right to choose whether use technology or not 	
	<ul style="list-style-type: none"> value - technology lowers the cost for communication but also render it less precious 	
	<ul style="list-style-type: none"> value - the past prediction of the future can be ridiculous 	
	<ul style="list-style-type: none"> value - unnoticeable devices which only stand out in emergent situations 	

	<ul style="list-style-type: none"> value - we as humans are ignorant of other animals value - we treat animals bad value - we treat live stock as products(commodity) not living beings 	
	<ul style="list-style-type: none"> value - we're being more and more integrated with technology 	
	<ul style="list-style-type: none"> value - young people are better at multitasking than elderly people, faster response to emergent situations 	
○ Tina		
Memo	<ul style="list-style-type: none"> [memo] - connection with others / loneliness 	
	<ul style="list-style-type: none"> [memo] - searching quotient 	open a special door to technology for elderly
	<ul style="list-style-type: none"> [memo] - self-realization/meaning in life 	
Personality	<ul style="list-style-type: none"> personality - adventurous 	
	<ul style="list-style-type: none"> personality - planner, prone to regularity 	
	<ul style="list-style-type: none"> personality - prefer to be simple and efficient in daily chores 	
Hobby/ Interest	<ul style="list-style-type: none"> hobby - (Tini) like recoding daily nice moments by photos 	
	<ul style="list-style-type: none"> hobby - museum (to get inspired) 	
	<ul style="list-style-type: none"> hobby - sewing and knitting 	make toys get inspired by the artworks knit covers for the pillow making apron (wow!) obsessed with sewing
Story	<ul style="list-style-type: none"> [story] - 30min limit to talk about illness 	
	<ul style="list-style-type: none"> [story] - finding lecturers too enthusiastically 	
	<ul style="list-style-type: none"> [story] - like beach because of childhood memories 	
	<ul style="list-style-type: none"> [story] - like brothers not sisters because of higher education more common interest 	
	<ul style="list-style-type: none"> [story] - like paris and home exchange friend in Paris 	
	<ul style="list-style-type: none"> [story] - love watching tv programs about photography rather than cooking and baking 	
	<ul style="list-style-type: none"> [story] - parents don't have holiday to travel makes me decide to work for a travel agency 	adventurous explorative
	<ul style="list-style-type: none"> [story] - win an award for finishing a crossword puzzle 	
Capability Approach	<ul style="list-style-type: none"> [affiliation] - long-term friendship from high school 	
	<ul style="list-style-type: none"> [bodily health] - eating at the same time 	
	<ul style="list-style-type: none"> [bodily health] - go to bed at 10:30 	
	<ul style="list-style-type: none"> [bodily health] - wake up at the same time everyday 	
	<ul style="list-style-type: none"> [emotion] - family visit (do chores, accompany grandchildren) 	
	<ul style="list-style-type: none"> [play] - watching tv in the evening 	
	<ul style="list-style-type: none"> [practical reason] - making plans at the beginning of the day 	
	<ul style="list-style-type: none"> [senses, imagination, thoughts] - talk with friends about thoughts and opinions 	

Scenario	<ul style="list-style-type: none"> [scenario] - a bag as a reminder to bring certain things or where to put certain things 	
	<ul style="list-style-type: none"> [scenario] - a belt as a reminder to regulate food intake 	
	<ul style="list-style-type: none"> [scenario] - a cap protecting skin from burning sunshine 	
	<ul style="list-style-type: none"> [scenario] - combine jewelry with medicines 	reminder to take pills
	<ul style="list-style-type: none"> [scenario] - paired belt-earring/earphone 	
Desire/ Needs	<ul style="list-style-type: none"> desire - be busy in doing sth. / spend everyday meaningfully 	
	<ul style="list-style-type: none"> desire - have a smart watch which can make phone calls 	no need to look at the phone
	<ul style="list-style-type: none"> desire - like the experience of VR 	
	<ul style="list-style-type: none"> desire - not want to be alone all day 	
	<ul style="list-style-type: none"> desire - prefer to family visit rather than long trip 	
	<ul style="list-style-type: none"> desire - to keep healthy 	
Process	<ul style="list-style-type: none"> need - mind healthy status 	
	<ul style="list-style-type: none"> process - excitedly showing her sewn stuffed toys to me 	
	<ul style="list-style-type: none"> process - scrolling the organized photos from the cloud expertly 	
Product	<ul style="list-style-type: none"> product - polarsteps (a travel-track web) 	
	<ul style="list-style-type: none"> product - Tito 	
	<ul style="list-style-type: none"> product - want to have the wearables on the head which has most senses 	
	<ul style="list-style-type: none"> product - YouTube 	
	<ul style="list-style-type: none"> product - YouTube as a tool to search solutions 	
Value	<ul style="list-style-type: none"> value - mind the diet in consideration for healthy 	