



Hannele Tiittanen (ed.)

Promoting well-being in older age

Examples of Activities and Higher Education-Industry
Cooperation at a University of Applied Sciences

Lahti University of Applied Sciences
Lahti 2015

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Contents

Authors	6
Introduction	8
Hannele Tiittanen Well-being in older age from the point of view of UAS education and regional impact	9
Raija Hirvonen, Kirsi Hämäläinen, Sari Lappalainen Befriending activities - social responsibility and vocational interpersonal skills	12
Jukka Karjalainen Building a future learning environment - designing an older person's home environment at a simulation centre Eveliina Kivinen	18
Sanna Hakala Linkku - enhancing well-being in older age Heli Oksanen	22
Hannele Tiittanen, Sariseelia Sore The possibilities of well-being technologies - supporting older people through innovation	24
Mirja Kälviäinen User-driven development of well-being in older age	31
Pirjo Knuuttila, Terttu Leivo, Annamaija Id-Korhonen Encouraging physical activity among older people living in assisted living facilities - Supporting functional ability through cooperation between physiotherapy students and the staff of City of Lahti assisted living facilities	43
Pilvi Nieminen, Päivikki Lahtinen Promoting exercise guidance skills among care staff as part of older people's well-being	49
Leena Nietosvuori, Helena Hatakka The role of social work graduates in supporting well-being in older age	55

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Introduction

The purpose of this publication is to describe the role of a university of applied sciences in supporting well-being in older people in the Lahti region. Key themes are workplace-focus and collaborative development with industry organisations to find a range of different ways to promote well-being in the region's older population.

The population of the Lahti region is ageing rapidly. In 2013, 21% of the local population were over 65 years old; by 2025, the figure is expected to be as high as 26%. According to forecasts, the proportion of older people in the population of the Lahti region will be higher than the national average. Although the health of older population has improved significantly in the last ten years, the growing number of older people poses challenges to health care service provision. New types of services need to be introduced, and the functional ability and independence of older people must be supported in every way possible: for example, the availability of referral and advisory services for older people needs to be improved, and further developments are needed to create a diverse range of services delivered in home settings. Various technologies should be

actively adopted to support independent living of older people.

This publication highlights possibilities that universities of applied sciences can offer to industry partners in supporting independent living and coping of older people as long as possible. The descriptions are intended to provide a broad overview of the institution's current methods and levels of cooperation with industry partners. Befriending activities are designed to bring joy and variety into old people's lives, the participatory and action-based methods used in social service education support social abilities in older people, and in the "tablet school", students introduce older people to electronic services. Linkku SmartBus takes services to older people's doorsteps and offers a way to innovate and create services for older people based on user experiences. Further education opportunities at the UAS support the development of the region's vocational skills base, and the simulation environment offers an effective setting for critical examination of competencies.

Lahti, 19 November 2015

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Well-being in older age from the point of view of UAS education and regional impact

The core duty of universities of applied sciences is the provision of higher education, but they have also been tasked with research and development, and regional development work. In everyday practice, the activities become strongly intertwined, and education is increasingly delivered in various development projects in cooperation with industry partners, giving students an early introduction to the basic operation and development processes of business organisations.

Cooperation with industry partners is based on the institution's areas of expertise, which are: Design, Smart Industry, Clean and Dynamic Environment, and Well-Being and Regenerative Growth. Various multidisciplinary projects are carried out in these areas with the aim of developing workplace skills and practices. All four areas of expertise can contribute to supporting well-being in older people, although Well-Being and Regenerative Growth is particularly relevant to this challenge. Among others, key themes in this area are inclusion, health, and the development of workplace organisations' practices. From the point of view of an ageing population, other salient themes include the regeneration of welfare services,

which is based on a user-driven approach, the combination of various kinds of expertise, and guidance. Regeneration of well-being services is supported through leadership, technologies and service design.

Experiments, demos, protos

The development of new work methods and services in line with the needs of an ageing population often takes place through experiments, protos and demos. Both public and private operators in elderly care have emerging development needs, which the UAS seeks to address. The development projects offer students exciting learning experiences that challenge them to innovate future practices and solutions in cooperation with industry partners. The development of new practices requires critical thinking, creativity and collaborative development in what are often multidisciplinary teams involving students from the fields of social and health care, business, technology and design. Experiments carried out with industry partners reinforce entrepreneurial attitudes and approaches to work - a skill that is increasingly in demand across the job market.

Industry cooperation is also an opportunity for students to demonstrate their skills to employers, potentially leading to future employment in a partner organisation. At their best, experiments, protos and demos can lead to new product and service ideas being refined into commercial products.

The Faculty of Social and Health Care actively collaborates with regional organisations involved in elderly care and services. In joint projects, customer-oriented approaches are developed and the adoption of innovative approaches is promoted through experiments, testing and assessments. The Faculty works with the home care service unit of the City of Lahti on developing customer-oriented approaches and producing content for virtual home visits. In content production, the aim is to offer older people programmes designed by students to customers' requirements. In addition, the Faculty has worked with the city's elderly care and rehabilitation services on mapping functional ability in older people who live in assisted residential facilities. These joint activities help support the objectives of the region's action plan for well-being in older age, support independent living and functional ability, and promote the adoption of new technologies in home services.

Fostering positive attitudes and expertise

In social and health care education, attention has been paid to issues related to an ageing population, both as a broader societal issue and from the point of view of services and expertise. A core educational objective is

to increase multidisciplinary expertise in elderly care and rehabilitation. In particular, attention has been paid to developing positive attitudes among nursing, social service and physiotherapy students with regard to working with older people. For example, new perceptions and customer-oriented work approaches are fostered through multidisciplinary case studies by working in a new simulation learning environment, which offers an excellent setting for students to critically examine their practices. Working in multidisciplinary teams nurtures professional growth and the ability to share personal field-specific knowledge in multidisciplinary decision-making. In multidisciplinary activities, students learn to recognise their personal professional roles and areas of responsibility, consult professionals in other fields, and utilise different competencies in a way that best serves the interests of a customer. Challenges related to functional ability and independence in an ageing population are often highly complex. The best way to respond to them is to employ a multidisciplinary approach to ensure a broad-based view of an older person's issues.

Regional expertise related to ageing is strengthened by various further education offerings which respond to needs identified by workplace organisations. The Faculty of Social and Health Care has offered extensive training packages related to geriatric care, with topics including geriatric nursing, acute geriatrics and rehabilitation in older people. In addition, the Faculty's staff have been involved as leaders of development and reform processes in workplace organisations, for example in a

City of Lahti development project for customer-oriented services in home care, and in a project carried out for the City of Heinola on interaction with older patients with cognitive impairment and on supporting the quality of everyday life.

Conclusions

Cooperation between the UAS and various private and public organisations delivering services for older people is the best way to respond to the needs of an ageing population and to produce new services and practices to promote health and functional ability and, in the process, regenerate workplace skills and practices. The UAS aims to offer practical higher education in cooperation with industry partners to produce graduates with strong professional identities and expertise. All focus areas of Lahti

UAS can contribute to new solutions to support well-being in the region's older people. In the Design focus area, relevant expertise includes products, services and experiences that are based on user-driven solutions, and development processes for new creative solutions. Smart Industry offers expertise in areas such as high technology and applications related to e.g. robotisation. Clean and Dynamic Environment focuses on the development of smart materials, material and energy efficiency, and sustainable urban environments. Well-Being and Regenerative Growth deals with inclusion, health and competence development. Multidisciplinary work in these focus areas in cooperation with industry representatives offers excellent opportunities for developing new solutions related to well-being in an ageing population.

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Raija Hirvonen, Kirsi Hämäläinen & Sari Lappalainen

Befriending activities - social responsibility and vocational interpersonal skills

Loneliness is common among older and disabled people. It has a detrimental effect on the quality of life and reduces functional ability. The feeling of loneliness can also affect the person's health. Loneliness is more prevalent among women, widows and widowers, and older people who live alone or in assisted living facilities. According to the Elderly Services Act (980/2012), social and health care services must support the wellbeing, health, functional capacity and independent living of the older population. It is therefore very important to find ways to alleviate loneliness among older people as well as disabled people of different ages.

Psychological functional capacity concerns a person's life management capabilities, mental health and well-being. Self-esteem, mood, mental resources and the ability to cope with different types of challenges are all part of the psychological functional capacity. Social capacity refers to a person's ability to interact and socialise with other people. For example, it includes relationships with family and friends, ability to engage in and maintain social interactions, responsibility for those close to

one, and life enjoyment. The worst problems in the everyday lives of older and disabled people are feelings of emptiness and worthlessness. Supporting people's psychological and social capacity also supports their physical functional ability.

Social exclusion can reinforce negative feelings of loneliness among older and disabled people. If a person with a reduced functional ability is unable to maintain social contacts, he or she may become withdrawn. This further reduces their ability to maintain existing relationships and build new ones. Despite loneliness, many older and disabled people prefer to live independently. Independent living also costs less to society than the cost of institutional care. Loneliness among older and disabled people can be alleviated by facilitating social contacts and increasing opportunities to participate in recreational activities. A sociocultural approach offers new insights into how the functional ability of older and disabled people living independently could be supported. We can encourage older and disabled people to become more active

through interaction by helping them cope with daily tasks. We can also accompany them out on walks, shopping trips, visits to the library, clubs, theatres, concerts, museums and to meet with friends.

This article describes how the Faculty of Social and Health Care has sought to respond to the challenge of loneliness through befriending activities. First year social and health care students visit older and disabled people to accompany them in their daily lives for a while.

Cooperation with regional actors working with older and disabled people

The befriending activities have been received well and with enthusiasm by regional actors who work with older and disabled people. In spring 2014, public service providers as well as third-sector and private service providers in the Lahti region were invited to work on ideas for enabling students to visit customers in their homes in order to learn interpersonal and communication skills and to enrich customers' lives. All service providers felt that having students practice their skills with older and disabled people in their homes was a good idea. Older and disabled people need stimulus and activity in their daily lives, and it was felt that the activities would support their functional ability and reduce loneliness. The partners agreed to source the customers and liaise between the customers and the UAS.

Since the launch of the activities in autumn 2014 with 90 customers, demand has continually increased to the point that

not all requests can be met, and many happy customers have returned to take part again. The number of participating regional public and private service providers has risen to 15, and the Faculty of Social and Health Care has also been contacted by family members enquiring how their relatives could get involved. The partners are convinced about the need for the activity, and they are keen to be part of the planning and development of the activities.

Befriending activities in practice

Students visit the customers approximately ten times in a three-month period. Students and customers agree on the schedules together. Discussions take place before visits in order to give students advice about interacting with customers and to highlight potential challenges. In addition, students meet with the customer and the partner organisation's representative in advance in order to hear the customer's experiences and requests and to ask questions. This ensures that students get a concrete experience and are able to hear from the older or disabled customer directly. Students meet in small groups three times during the befriending activity. In the group meetings, students can discuss their visiting experiences in confidence and, by drawing from research, discuss aspects of the everyday lives of older and disabled people. The group meetings are also opportunities to receive support from lecturers and student peers in questions or challenges arising from customer visits.

The befriending programme ends with a farewell party with activities planned by the students. Students assist the customers to the event and during it. The purpose of the event is to mark the conclusion of the activities together. The event has proven an important way to bring the shared journey to an end. It has been touching to see how, after initial nerves, the activity has evolved into a natural relationship for both parties. As one partner representative noted, the customers take the role of a professor as they guide and teach the younger generation and help build a bridge between young and old people.

During the activities, students and customers have taken walks together, been on shopping trips, chatted and reminisced about the older person's life, played card games, or learned to use a computer. Baking and looking at photographs have also been popular pastimes. Life experiences have been shared and heard. Students have learned interpersonal skills as well as patience, how to support another person's functional ability, motivate, encounter different people, and their self-awareness has also increased. In some cases, students have been able to persuade an otherwise reluctant home care customer to come outdoors with them.

Students' experiences of the activities

Most notably, students felt that they had learned interpersonal skills. These include the ability to listen, to have a conversation with strangers, and confidence in encountering

new people. The majority of the students said that they had initially been nervous about meeting the customer, especially for the first time. Many students said that they had become more confident and found courage to meet new people which they thought they didn't have. During the meetings, the students had learned to understand the individuality of the customers, their different lives, and to be patient in the shared activities. The small group meetings had increased students' understanding of the everyday lives of older and disabled people also at the theory level, and contact with the assigned representative of the service provider at the outset and during the activity had also been important in helping students get an understanding of the service operation. In the activity feedback event, students gave good descriptions of their experiences in the everyday lives of older and disabled people. Students' summary of the various elements of the lives of older people and encounters with them is provided in Figure 1.

Future of befriending activity

The befriending activities have helped enhance students' understanding of the everyday lives of older and disabled people, their functional ability and coping, and more broadly of the challenges related to an ageing population, which are also apparent in the social and health care service system. It is hoped that an increasing number of older people will be able to live independently as long as possible, and therefore students should be



FIGURE 1. Different aspects of the everyday lives and encounters with older people.

given opportunities to familiarise themselves with the everyday lives of older and disabled customers in their home environments right from the outset of the degree programmes. The befriending programme has also facilitated multidisciplinary activities among social and health care students, providing a natural setting in which to examine customers' functional ability and best ways to support it from different professional perspectives. The aim is to develop the activities and make them even more multidisciplinary. The activities already involve a group of information technology students, who work with social and health care students to identify potential digital applications that could help enrich customers' lives. The befriending activities have helped

address one particular challenge in the region's services for older and disabled people: namely, the fact that many customers spend most of their time alone at home, where they yearn for activity and company. At the same time, the befriending activities have supported the objectives of the region's action plan for well-being in older people, which places importance on independent living and measures to support rehabilitation. The activities have been developed in close cooperation with representatives from regional public and private service providers in social and health care. The cooperation has offered students new insights into working with older people and fostered positive attitudes to ageing.

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Eveliina Kivinen & Jukka Karjalainen

Building a future learning environment - designing an older person's home environment at a simulation centre

In the future, older people will form a significant customer group in social and health care services: the proportion of those 80 years and over will almost quadruple by 2050, and Finland is one of the most rapidly ageing countries in the world. The national target is to have over 90 percent of people 75 years old and over living independently.

The operating environment and job requirements of the social and health care sector are undergoing major changes, and education needs to be reformed to better respond to the future needs of working life. Students will need to be better prepared to work independently in domestic home settings. One teaching and learning method ideal for this purpose is simulation education. By 2018, the new campus of Lahti UAS will have a multidisciplinary simulation learning environment serving all Lahti UAS students as well as workplace organisations and other partners.

This article describes the process of planning a future simulation learning environment. The process started in conjunction with the GERinno project implemented in 2014-2015. The project was funded by the Regional Council of Päijät-

Häme and the European Regional Development Fund and the project aimed at integrating an older person's domestic home setting as part of a multidisciplinary simulation centre.

Simulation education at Lahti UAS

Simulation education started at Lahti UAS in 2013. Currently simulation training is implemented in all disciplines of the Faculty of Social and Health Care (nursing, physiotherapy and social services), and multidisciplinary cooperation has also taken place.

Simulation education is a method that facilitates the combining of theoretical and practical knowledge and the application of evidence-based knowledge in a goal-oriented practice setting. As a training method, simulation supports the learning of both technical and non-technical skills and offers a meaningful and safe way to practice skills needed in the working life. Research shows that simulation exercises can enhance professional expertise, and simulation plays an important role in the development of professional self-confidence.

Through simulation exercises, students learn together new knowledge and skills which are underpinned by and complement existing competencies. Students are encouraged to reflect on their personal practice and that of others, the underlying rationale, give and receive feedback, and identify areas where they need additional practice. Students review each completed learning session with teachers, including decisions made and actions taken during the session. Simulation motivates and activates the learners and, from the teaching perspective, the emphasis is on a student-centred learning.

Designing an older person's home environment at the simulation centre

The GERinno project was implemented by a multidisciplinary team which included nursing, social services, physiotherapy and technology teachers and students as well as labour market and business representatives. In addition to teachers and students, key actors included the home care services of the City of Lahti, the Harjula Settlement Association, and the older people's council of the City of Lahti.

The project included three separate workshops aimed at collecting information about the professional challenges of working in domestic home settings as well as older people's experiences of independent living. Representatives from local businesses offering health care solutions also participated in the workshops. The information collected from participants was used in the planning of the learning environment.

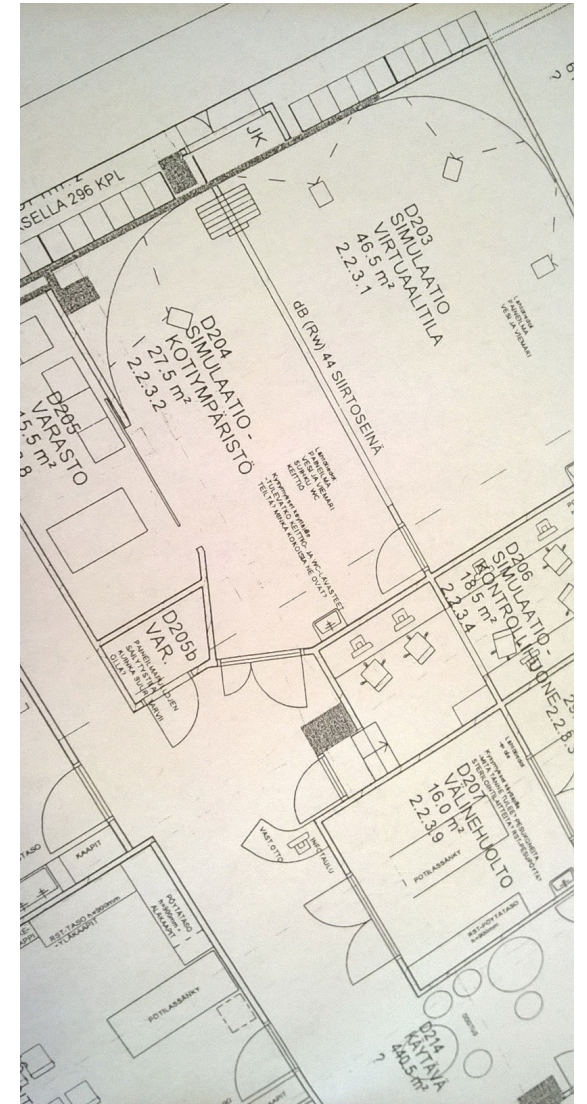


FIGURE 1. Kuvateksti

One of the primary objectives of the project was to draw up a plan for the usage and operation of the learning environment, i.e. the simulated home setting of an older person, envisaged for the new simulation centre. The project involved multidisciplinary collaboration, including with technology students who developed a prototype tablet application to offer older people who live independently entertainment and useful functions from apps designed to their needs. The prototype was presented to older people in the third workshop, and they were asked to provide feedback for further development.

Lahti UAS simulation centre 2018

In the future, a multidisciplinary and multimodal learning environment will facilitate collaboration and the sharing of knowledge and expertise between teachers, industry experts and students. Other key aspects of future learning environments include opportunities to work on solutions for real-world workplace

problems, networking with different actors, and the use of latest technologies.

Simulation activities at the new multidisciplinary campus will offer shared, multidisciplinary and insightful learning experiences and journeys of discovery to all actors and help them develop professional expertise. The simulation centre will comprise three simulation facilities: a hospital space, an open virtual simulation environment, and an older person's home setting. The older person's home setting is envisaged as a versatile environment for learning, activities and innovation that supports competence development and brings together the region's experts. The idea is to promote competence development among actors working with older people and increase cooperation between students, teachers and actors in the social and health care sector. The home setting is also intended to be used in product development processes and as a test environment for various products and services designed for older people.

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Heli Oksanen & Sanna Hakala

Linkku - enhancing well-being in older age



FIGURE 1. Kuvateksti

This article describes the opportunities offered by the Linkku SmartBus project in responding to challenges related to well-being in older people in the Päijät-Häme region.

Päijät-Häme is a region characterised by long distances, where sparsely populated and ageing municipalities are facing challenges in maintaining accessible basic public services for local residents. Many fixed service points are being closed down, which will

take services further away from the users. Services are increasingly moving online, but many, especially older people, are not ready to access services electronically due to lack of necessary equipment and/or skills. In order to respond to this situation, new ways of delivering municipal services to residents are being explored.

Linkku is a mobile service environment built onto a bus chassis and designed to offer a new,

flexible and versatile way of delivering services to areas where services have closed down or are about to close. Linkku combines modern technology, adaptable space solutions and mobility. The Linkku SmartBus project was set up to design and test new ways of delivering social services, health care, information and library services in the Päijät-Häme region, although it can be adapted to other types of services as well. The idea of Linkku is to support holistic well-being by bringing enjoyment and a diverse range of services to customers. The aim is to respond to customer needs by creating new service concepts delivered outside urban centres, for example by providing a mobile health kiosk service and service referral advice for older people. Linkku is currently delivering services to Sysmä, Hartola, Padasjoki, Asikkala and Iitti. Project partners include the joint municipal service centres Aava and Oiva, Lahti University of Applied Sciences, and Salpaus Further Education.

Student involvement in the activities

The aim is for Linkku to become Finland's smartest, most flexible and most versatile mobile unit for learning, expertise and well-being, providing a range of high-quality services to customers. Linkku offers an entirely new kind of environment for service provision by students in different fields. Social and health care students use Linkku to deliver services related to health promotion and illness prevention, and they have also designed various new service concepts for it.

Linkku can also be used to take different types of events to remote areas. For example, nursing students participated in the national seniors week event by joining Linkku on trips to Sysmä and Orimattila. The students offered functional ability assessments and advice to older people and arranged recreational activities at local residential facilities. They also advised older people on how to use the online healthcare services of the Hyvis.fi portal. At Lahti, the seniors week is planned in cooperation with various different actors, including representatives from the city administration, the advisory council of pension associations, the city parish, and Lahti University of Applied Sciences.

Linkku offers an excellent setting for health promotion in older people. The cornerstones of health promotion in older adults are: physical activity, a diverse and nutritious diet, and the prevention of falls and fractures. Older people's well-being can also be supported by making adjustments to their home environments so as to encourage mobility and participation. Emotional support should also be available - one important method is group activity with peer support for inclusion and empowerment. On Linkku, students encounter older people of different levels of functional ability and advise them both on a one-to-one and group basis about these and other topics. When designing the service contents, it is important to listen to customers' requests as they are their own experts when it comes to well-being.

Hannele Tiittanen & Sariseelia Sore

The possibilities of well-being technologies – supporting older people through innovation

The world is rapidly becoming more digitised. In almost all types of activities, there is a shift towards agile service models which are increasingly delivered digitally. In Finland, this change affects the everyday lives of all people regardless of their backgrounds. Older people and their services are one major area where digital services can be utilised in different ways. According to population forecasts, by 2030 over 25% of the Finnish population will be over 65 years old (Statistics Finland 2012), which will put pressure on service providers, among others.

According to a survey carried out in the KÄKÄTE and LähiVerkko projects, one third of people in the 75–89 age group use IT, and most of them are confident in their abilities to use IT if given appropriate guidance (Nordlund, Stenberg & Lempola 2014). As technology users, older people differ from younger users due to normal changes related to ageing. Older people need guidance on the use of existing digital services, but it is also essential to take them into account when developing new types of services, since older people are a fast-growing demographic.

The City of Lahti action plan for well-being in older people 2015–2020 identifies the

development of home care as one focus area where older people's independent living can be supported by introducing new technology solutions. This article describes the Possibilities of Well-Being Technologies study unit in which IT students and social and health care students design digital services with a user-driven approach for older home care customers and disabled customers of a day centre. The study unit is a good example of multidisciplinary project-based learning that incorporates support of the regional strategy. It also supports the institution's pedagogical approach, which emphasises work-based learning and links knowledge and skills directly with workplace practices.

Study unit aims and method of delivery

The Possibilities of Well-Being Technologies study unit is delivered as a tablet school project in cooperation with the City of Lahti services for older and disabled people. The main aim is for students to design and describe a technology-based service to support customers' well-being. In addition, students

should be able to advise customers on the use of technology-based well-being services and evaluate user experiences.

The study unit has been offered to business information technology students. It has also involved one social services student and nursing students from the Faculty of Social and Health Care. During the study unit, students visit selected older customers of Lahti home care services approximately once a week. Disabled customers from the Ahtiala day centre have also been involved.

In the tablet school, students guide and support older customers in using tablets and applications. Since the customers had no prior experience of mobile devices, the guidance sessions started with learning to turn on the device. Although the instructions were designed to progress step by step at a slow pace, some older customers opted to quit the tablet school after a couple of meetings, as they found the tablet too difficult to use due to age-related memory problems. New participants were sourced from among home care service users and other older people in the area. During the sessions, students collected older people's experiences and wishes with regard to the use of the tablet and applications, and the feedback was then used to design a new application. The aim was to create an application offering an easy service that would be useful or bring enjoyment to older people. All disabled customers were familiar with mobile devices, and the starting points of the sessions were therefore different to those organised with older customers.

The study unit was spaced over a three-month period with approximately ten sessions with customers. The study unit concluded with an event where students presented their applications to the staff and customers of elderly care services.

Examples of the study unit's outputs

The following are three ideas on digital services produced and described by the students. The ideas are described at a conceptual level, and they can be used in the further development of actual products.

Example 1 / SIMPELE

Students Mikko Snäll and Antti Virtanen

When examining information received from the tablet school customers, we noticed that the user interface was the biggest problem from the customer point of view. Individuals who had no prior experience of touch screens found it very difficult to grasp the functionalities of the device, such as swiping the screen with a finger, using multi-touch gestures (e.g. zoom), and identifying buttons and links. People with no previous experience need a device that is easy to get started with, which means that the tablet interface needs to be simplified. This led us to the idea of an application called Simpele (Figure 1). The name resembles the word 'simple', and it is also the name of a South Karelian village near the eastern border of Finland. Just as the village of Simpele was forced to change as a result of post-war border changes and the more recent

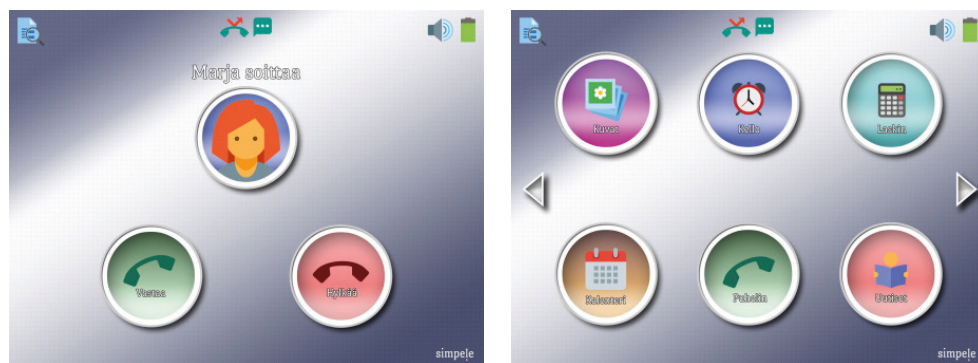


Figure 1-3. Simpele application.

municipal reform, today older people often feel that changes resulting from technology are being forced upon them. The name of the old Simpele village is therefore apt, not only because of the name itself but also because of the changes to which the village residents have had to adapt.

The main purpose of Simpele is to make everything simpler. The application is an interface that sits on top of the existing device interface. The applications can be opened using icons. The icons are large, and each page of the interface can only accommodate up to six icons. The page also has arrows which can be clicked or swiped to move to the next page with more icons. The icons can also be groups, i.e. an icon can be opened to view a set of icons: for example, a "News" icon could be a folder including a native news app for Simple as well as icons for Android apps. The icons of each page have a different design: the first page has round icons, the second page has square icons, and so forth. The icon colours are also different on each page. Each icon image describes its contents. In addition, the icon displays the name of the app or group of apps, such as "camera" or "phone". This helps users understand, remember and differentiate the icons and identify pages. The Simpele interface is presented in Figure 2.

By clicking the Phone group, the user can open a new page with the following icons: "Call a number", "Call a person" and "Call information", as well as an arrow for going back to the previous page. When the device receives a call, a simple page opens displaying the caller's picture, name and two buttons: "Answer" on a green background and "Reject the call" on a red background.

Simpele can be arranged to suit the user's preferences by moving the icons onto different positions and pages. Users can also create their own page with icons for the apps they use most often. Alternatively, Simpele can be locked to prevent icons from being moved accidentally. In this case, Simpele can only be configured by the administrator, e.g. the user's relative or an employee of the service provider.

Example 2 / LYYLI Students Mika Rissanen and Suvi Hirvonen

The starting point of designing a well-being service was loneliness experienced by older people. The idea came about from discussions about various dating apps and their users. We took the dating service idea and developed it to better suit a holistic well-being service and set out to explore how, for example, a board game enthusiast could find a board game friend if there are no players in the person's immediate social circle. We focused on older people since numerous similar applications exist for younger people but they are too fast-paced or limited for the older population.

Home care staff do not have time to socialise with their customers, even though customers would get a lot of enjoyment from it. Some older people have no family or friends living nearby who could keep them company. Although friendship groups organised on a voluntary basis do exist, there is currently no service that can help older people find others with similar interests.

The service should be very easy to use with

just one button to open the application. Login details could be either typed in or dictated, and the subjects of interest should be displayed as clear, image-based menus that are easy to click. The service could be used to find company for chatting, games, coffee meetings etc. from existing friends or new people.

What is Lyyli?

The application uses location data to find all Lyyli users within a defined distance. The user can view the matching profiles, send them messages or call them. The profile displays the person's subjects of interest and other information that other users can view to decide whether the person would be suitable company, for example, in different hobbies.

In addition to the friend-finding facility, the application offers a service which older people can use to request a fee-based visit by Lyyli employees. Users can request a specific visitor, although it is not always possible to match schedules. For example, users could book someone to take them out for a coffee, play tennis with or go to a yoga class together. The possibilities are unlimited, but the application has a list of predefined options. Activities other than home visits must be arranged separately with the customer service, and any additional costs of the activity are paid by the user.

Who is it for?

Lyyli users are typically lonely people whose friends and family live far away or visit rarely. They may have limited mobility or difficulty in finding like-minded company. The use and

availability of the service should be made as easy and uncomplicated as possible, since the service is mainly designed for recreation purposes. Usability would therefore not be a problem even for users with no experience of using IT equipment.

Why is it needed?

The best way to prevent the feeling of loneliness is to help older people feel that they are needed and part of society. Social contacts are important, but they do not necessarily require meeting in person. Young people today are used to socialising via various applications without face-to-face contact. This does not exclude meeting friends outside the internet; rather, it facilitates contact with a number of different people on a daily basis. It is not always necessary to meet in person, sometimes it is enough to just share thoughts. Online conversations can also help alleviate loneliness. We believe that the Lyyli application would increase social contacts among older people and therefore alleviate feeling of loneliness.

Example 3 / App store Näppärä

Students Mikko Puustinen and Esa Pitkänen

As existing app stores seem fairly complicated, we decided to design Näppärä, a simple app store. It is particularly suitable for people with learning difficulties or cognitive disabilities. The idea is to design an app store based on a simple user experience. The design

is handy and simple with no unnecessary additions, which means that Näppärä can directly offer customers the main content i.e. apps. What is even more important than the simple design is the fact that the apps offered by the store are selected based on the target group's needs. The target group are people with developmental disabilities that affect their learning and cognitive abilities. In Finland, there are approximately 40,000 people with developmental disabilities. Näppärä makes it easier for these people to use tablets and smartphones.

Näppärä is based on the fact that a similar solution does not yet exist. There are many smartphone and/or tablet users with learning difficulties or cognitive disabilities. Downloading apps from existing stores (Google Play for Android, Apple App Store and Windows Store) can be complicated. The app stores contain a lot of text-based information, and apps are content-heavy. Finding suitable applications can be time-consuming, and there can be several different alternatives for one application. App stores can be a frightening and frustrating experience. In addition, app store users need to be careful, as they could unknowingly accept various user agreements or even sign up to fee-based apps.

Näppärä app store features a clear form for users to contact the service provider and ask questions. (image)

Simplicity

The main service of the app store is the

application offering. Some apps are offered via Google Play, which has a range of excellent apps for children and adults of all ages. Näppärä will feature apps which can be useful for mobile users in the target group in terms of learning, entertainment and practical uses. The Näppärä service is also based on the idea that users and their carers could offer their own apps for the store. Suitable apps could be made available to other users via the store.

Näppärä is developed with emphasis on design, simple language and visual presentation. Graphic design plays an important role. There is also emphasis on visual communications, since conventional app stores are not designed with all users in mind. Users are told visually whether the applications are free or fee-based. Näppärä will primarily feature free applications.

Conclusions

Students have given positive feedback on project-based learning that involves working directly with customers. Visits to older and disabled people have helped students open their eyes to see potential uses of tablets from the point of view of users. Customers have been happy with the guidance, and the sessions were mostly seen as pleasant, although there were some challenges with regard to taking into account different functional limitations of customers. The visits yielded plenty of information on user experiences, and students were able to give due consideration in their app designs to customers' needs and ability to use tablets. The identification of customer needs, customer insight and the application of this

knowledge are key factors in the design of new activities and products. In the Possibilities of Well-Being Technologies study unit, students were able to create simplified applications that can help older and disabled customers in using tablets. Nearly all of the ideas have further development potential as commercial products.

Innovating a new application requires creative problem-solving and decision-making skills, cooperation and team skills, the ability to combine knowledge from different disciplines, and the ability to work in a multidisciplinary setting. These key workplace skills can be best

acquired through project-based collaborative activities that bring together students from different fields and give them a chance to resolve real-world problems in authentic workplace settings. The study unit gives business information technology students and social and health care students opportunities to engage in multidisciplinary collaboration, innovation and to jointly produce, apply and utilise knowledge. The implementation of the study unit is designed to help support the well-being and independence of older people, the introduction of new technologies, and industry cooperation.

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Mirja Kälviäinen

User-driven development of well-being in older age

A user-driven approach is a central theme in product and service development today, and it also applies to services and products designed for older people. The user point-of-view is particularly important in designs aimed at promoting well-being. This article describes experiences gained in development projects featuring various methods of user research and user involvement to design products and services aimed at promoting well-being in older people. The methods were applied in various projects and workshops conducted in 2006-2014 which featured user research and user involvement to develop services and products and their marketing and introduction.

The role of user-driven development in solutions aimed at seniors

The demographic change in Finland means that the consumer potential of over 65s will rise to 25% of the total population. This is a European-wide phenomenon, but similar competition potential can also be found in Asia, particularly in Japan - another rapidly ageing country - and gradually also in China. However, product and service development aimed at senior consumers often involves challenges due to gaps in user understanding.

Information is needed about older people's consumer behaviour, sub-segments, and perceived stigma and other negative aspects of specialised products created specifically for older people. Demographically, the over-65s include people ranging from those in their eighties who have experienced war and shortages to 70-year-olds who have lived most of their lives in the consumer society. Attitudes to new solutions can differ greatly between the age groups due to different experiences and backgrounds. The economic status also varies, from people surviving on state pensions to others with high pensions and still others who continue working. Different lifestyles, influenced by factors such as educational and employment background, can also influence the way older people perceive the solutions, not to mention different user situations and contexts for which they are designed.

Increasing user understanding is one of the main pillars in the development of well-being solutions, since business representatives and developer organisations tend to see the world and the development subject in a different way from users. The user-driven approach is aimed at developing genuine empathy to users' circumstances and experiences; in other words, developers should walk in the user's

shoes instead of relying on their own expertise when approaching a development task. This helps them avoid developing products or services that users don't understand or see a need for, or which fail to give a positive user experience. When user information is utilised from the outset of the idea stage, development work takes the right direction in line with user needs, and expensive alterations to improve the user experience can be avoided in later stages when the process has advanced too far. The user perspective can also be utilised as ideas material for new solutions and to generate innovation potential.

The purpose of collecting user information is to determine who the actual users are, how they use other comparable solutions, and how they behave and think in relation to these solutions: for example, the types of situations and contexts in which they would use the solutions, and the purposes users see for them. Especially with new solutions, the idea of user studies is also to explore more broadly the needs, capabilities, experiences and wishes of users, and the broader cultural framework of the users and the intended solution. Broader and deeper user understanding may reveal needs that existing solutions have failed to address, or hidden needs that users themselves are unaware of or unable to communicate.

In the user-driven approach, consumers are seen as active subjects instead of passive objects. Although the idea is not to make users design the product as such, they can nevertheless contribute significantly. Users should be involved in the whole process and actively interact with the developers. User-

driven design is related to the concept of open innovation, which recognises that the internal knowledge or expertise of a company or organisation is not always enough, and that crowdsourcing and the sourcing of ideas from various external actors - such as users - can be a prudent alternative, improve focus and enrich the development process.

A positive user experience requires creating a smooth and pleasant user experience path, which often means networking with other parties, since the user process as a whole requires all producer participants to create value and understand what each user stage means to the user. Users can be served by addressing obvious needs, but a saturated market can also have niches and opportunities related to latent, hidden needs. Increasing attention to users and their inclusion in the design process is more and more important, not least because peer recommendations are an important competitive factor in a parallel market. The basic premise is not that users would know what needs to be designed; rather, it is that user information and user understanding can be leveraged to design, in cooperation with the users, products that are suitable, acceptable and appealing to them.

The word-of-mouth market extends beyond social media and new digital networking solutions. Older people in particular listen to and follow their peers when making decisions. In some development cases, the inclusion of a user group can enhance the adoption and spread of a new service and kickstart peer-to-peer marketing. In senior solutions in particular, the opportunities of peer groups are an interesting addition to solutions. In a time of



Figure 1. The daily journal material encouraged older people to document their everyday interactions as a basis for social online service solutions.

an ageing population, there are concerns about being able to provide support services for frail or lone older people from public funds alone. The need for a user-driven approach in designing for older people is often related to the need to create solutions that enable seniors to assist one another or help them cope independently.

User methods applied in senior projects and workshops

This article describes how user information and user understanding accumulated through different projects have been applied in the development of well-being solutions for older people. The experiences come from projects that were implemented in 2006-2014 and which involved both user methods and the development of products or services for senior consumers. The projects included user workshops conducted for Abloy, Rakennusliike Taskinen Oy (currently Lemminkäinen Itä-Suomi) and Respecta. Different types of user methods were applied especially in the larger projects, which included Hyvinvoinnin rakentuminen vanhuspalveluissa (Academy of Finland), Hyvän ikäasumisen uudet liiketoimintamallit - kehitysympäristöjä ja käyttäjätietoa hyödyntämällä (Tekes) and ICT PSP Life 2.0 (EU).

In user-driven design, user information is collected and used as the basis of the design process, and it emphasises the idea that design can take place through dialogue and interaction with the user from the start to the end of the process. Essential factors include collecting user information from the right users, the

application of the information in the designed solutions and concepts, and the testing of the prototypes with the right users or user representatives.

In the case of senior citizens - like with other user groups - an interesting question is how to reach suitable users and engage them in the user study or co-design process. In the projects mentioned above, various organisations such as third-sector NGOs have served as networks for finding and engaging users. For example, these included the pensioners' federation Eläkeliitto and, in the health sector, the heart federation Sydänliitto. Organisers of user cooperation also included various specialist and recreational clubs, such as Universities of the Third Age, the IT group Joen Severi, and the senior club of the University of Eastern Finland. Various associations, clubs and day centres have also served as platforms and communication channels for information retrieval, co-design and testing. User inclusion does not necessarily mean physical participation: observations and discussions with users are today often sourced via social media. However, the use of these channels is still limited among older people, although email can be used to reach them via interest groups and clubs.

There are numerous methods of producing user information for the development process. Existing research and customer studies can also be used. The Life 2.0 project was aimed at developing a social online service suitable for senior citizens. Existing research data were utilised by reviewing the most recent structured current state interviews and service need interviews conducted by the City of Joensuu

with 75-year-old residents. Information on service needs was also obtained from service advisors of the City's elderly care services and experts who had been involved in senior service development projects. In addition, expert knowledge on senior participants' relationship with the use and learning of IT was sought by interviewing instructors of IT courses for seniors at an adult education centre, volunteers instructing seniors at the Joen Severi computer club, and instructors of the University of Eastern Finland senior club which specialises in user evaluations in IT.

In the Hyvä ikäasuminen project, information was sourced from an existing senior consumer study and the results of previous senior workshops to support user analyses conducted for twelve companies. The previous study was used to identify and write down short descriptions of senior consumer groups, such as "healthy bon vivants", "healthy loners", "frail and sociable", "frail loners". In addition, the results of previous user studies and workshops involving seniors were reviewed to formulate descriptions that illustrate experiences which senior consumers find pleasant, as well as goals related to their choices and actions, such as "possible", "helping others", "travelling", "ease". These stimulus materials were then used by the company representatives to formulate their own definitions of appropriate senior consumer segments for their businesses and the characteristics of each segment.

Although quantitative research can also be used to obtain user information, the data obtained by this method is often hard and distant. It is important to consider where the questions

and options come from. Are they based on the understanding and categories formulated by developers, businesses and organisations, or those of real-world users?

With its human-orientation, user-driven research is specifically based on qualitative methods and ethnographic field methods, such as observation in a real-world user context, different types of qualitative interviews and self-reports. The purpose of this type of research is to identify the specific, multi-level systems, rituals, methods and characteristics of a culture or, in this case, group of users and the user context. Qualitative ethnography seeks to find out how users view the user situation and life more broadly. Ethnographic research and analysis view the world through a top-down user thought process, in which the user's experiences and lifestyle have priority. The idea is to identify highly charged moments in the user's life that carry particular meanings and are important to the solution being developed or which entail opportunities to unlock hidden needs. Direct questions are not the best option, especially if the aim is to find latent, hidden needs.

In the Finnish component of the Life 2.0 project, users' home environments were observed and captured through photography. Eight senior volunteers participated in in-depth interviews. After the initial interview, the volunteers recorded their everyday interactions in a daily journal. The material was then reviewed with the volunteers. In user research, these types of materials are called probes. Researchers provide artifacts, visualised materials and templates, stimulating materials and tasks, which are designed to inspire users to document

and report on their lives or even come up with ideas for life-enhancing solutions. In the Life 2.0 project, authentic user stories and typical user personas were created based on observations, interviews and self-reporting through qualitative and other materials, and they were then used to formulate scenarios for new online services developed in the project.

In the Hyvän ikäasumisen innovaatioalusta ("Innovation platform for good living in older age") project, observations were carried out in the homes of 22 older people living in different circumstances. The home solutions were documented by photography. Users were also interviewed and the material was used to create detailed user descriptions of several pages to provide the basis for new business solutions in elderly living. As a separate measure to collect qualitative material, the project also organised a writing competition in which older people and their family members were invited to describe their feelings and thoughts about "dream living" in older age.

The Well-being in elderly services (Hyvinvoinnin rakentuminen vanhustalveissa) project funded by the Academy of Finland featured observation based on detailed photography of 16 public or private care homes and on observational and analytical visits to two public care homes and two private care homes. The visit materials were analysed based on criteria for the assessment of a good care home environment, which were adapted from an American study. Pictures of living rooms, halls, hygiene and dining environments were selected from the photographic materials and reviewed in workshops, which included older user groups.

User workshops were utilised to acquire information and development material for Abloy, Rakennusliike Taskinen, Respecta, and the Life 2.0 and Hyvinvoinnin rakentuminen vanhustalveissa projects. Like self-reporting, the workshop activities also need to be designed to feature stimulus material or probes that can help users express their thoughts. Participation requires encouragement, support and appropriate tasks.

In the Abloy workshop on future door environments, the probe was a picture of a door, which was given to the participating older women who worked in small groups with marketing and product development personnel from Abloy and annotated the picture to point out problem areas in the door, locks and the general door area. After that, they were given an extensive set of pictures of door areas sourced from magazines and they were requested to present solutions for the identified problems on a poster. In the workshop, emphasis was placed on understanding the importance of own home, privacy and ownership, which requires respect towards seniors.

The design workshops of Taskinen wooden houses and residential areas were arranged to concretise the different aspects of the psychological comfort of a living environment using sixteen photographs. For example, possibilities related to safety and restricted sociability were identified and concretised in senior workshops. The importance of diversity and age range in the habitants as life enrichers was also discussed. The participants listed and described things they wanted to see in the outdoor areas and the wider residential area.

Senior workshops were organised for Respecta for senior brand development purposes. Since the company's values are related to good living of its customers, this became the main theme of the workshops. Different themes on good living were brainstormed in small groups. This was followed by evaluation of the existing marketing materials of Respecta and thoughts on suitable marketing and information dissemination methods. Finally, the participants were given a list of Finnish celebrities who are well known among the older population and asked to choose suitable personalities to represent the Respecta assistive equipment brand.

The Life 2.0 workshops were designed to support the development of social online services for older people, and they included project presentations and in-depth interviews in the early stages as well as activities to motivate participation in self-reporting. In the later stages, the workshops were also developmental and evaluative. (Newton et al. 2011). One highly important stage of the development workshops was the categorisation related to the online service in a user workshop setting. The participants brainstormed and formulated, from the user point of view, a search menu for the service application that users should have access to when searching for assistance, recreational activities, events and commercial offerings.

The Hyvinvoinnin rakentuminen vanhustalveissa project included workshops to evaluate existing care homes through photo association exercises. The participants also

chose photos of care home environments that they found appealing (Kälviäinen 2013a). In addition, they were asked thematic questions about issues they saw as being important either to themselves or their family members if they were to move into institutional care.

Senior workshops were also organised for evaluation and testing purposes. In the Hyvän ikäasumisen innovaatioalusta project, the workshops were focused on evaluating business models formulated based on user information and the associated user functions. In particular, "lead user"-type participants such as leaders of associations or retired construction professionals were very active. When the events included both business representatives and older people with no public speaking experience, one good method of getting feedback was to give senior participants a feedback envelope which they could use to submit comments after the event. The project also included an exhibition on good living in older age, which featured trained seniors as peer presenters, and large bus entourage organised by the pensioners' federation Eläkeliitto participated in and evaluated this concrete way of demonstrating living solutions.

Scenarios produced in the Life 2.0 project were evaluated in workshops from the point of view of necessity and functionality, and a detailed service path related to the scenarios was also analysed. In addition to user participants, evaluations were carried out by ten seniors interested in IT usability from the senior club of the University of Eastern Finland, which specialises in the appraisal of IT solutions. The Life 2.0 project also included

a long-term 18-month pilot project during which the service platform was piloted and evaluated with 140 seniors in total in North Karelia, Aalborg, Barcelona and Milan.

In order to obtain diverse and reliable user information, it is advisable to use methods that are suitable to the user group, the intended solution, and the development work schedule. In ethnographic practice, the use of a range of different sources of information is seen as useful to ensuring access to different levels of the experiences and the identification of the primary themes and meanings of people's behaviour. When a range of different methods is used to observe and obtain information about users, the quality of the results will not be affected by possible weaknesses in the methods, the overall picture is multifaceted, and information can also be obtained about possible hidden, latent needs. In senior projects in particular, diverse information retrieval methods have proven important, as older people may withhold important information out of shyness or politeness, or they may attempt to appear more upbeat than they actually feel. In user studies, older people can take a while "to get going", and plenty of time should be reserved and different approaches to topics should be used in order to acquire a more in-depth and truer picture of users' circumstances and attitudes to the solutions.

Results of the senior user-driven approach

The older age groups include a range of different types of users with different lifestyles

and preferences. People aged 80 years or over who have experienced war and the consequent shortages are often happy with whatever is available. For them, everything is well, and in workshop discussions they may suggest that life today is akin to paradise. In contrast, people aged 65-75 have adapted to the lifestyles of the consumer society and are thus more accustomed to variety. Despite the range of age and lifestyle segments among older people, the development projects described in this article offer specific user themes and phenomena which are highly relevant when developing products and services that take into account and support the well-being of older users. These have been examined in detail in previous reports, such as the user information summaries of the Life 2.0 project.

Good living also involves a sense of respect towards seniors and the ability to preserve the meaningfulness and enjoyment of life as well as a certain sense of power. For example, control over personal finances is often the last thing people want to give up. It also applies to hobbies, which older people can be passionate about. Meaningfulness can emerge from the use of technology for practical rather than entertainment purposes.

Many older people have skills and life experience which could also be leveraged to support other areas of society. For older people themselves, better leveraging of their talents can lead to sense of worthiness and respect. The desire to learn remains and even increases in older age. While spiritual life can offer meaning for some seniors, others would

point out the importance of respect and the negativity of being force-fed. There is also emphasis on the wish for respect in personal backgrounds, hobbies and interests even if the person is no longer able to actively engage in them. This also involves the need to preserve matters of personal importance as a priority over efficiency - if the latter is at all needed.

Nevertheless, convenience in daily life is a theme in many of the described projects that mapped user information with older people. In observations, this has emerged, for example, in the way users adapt their environment to make it more convenient if the need arises. In daily life and tasks, acceptance of personal limitations and a realistic view of personal circumstances are seen as aspects of a good life. Acceptance of one's life, detachment from the world's sorrows and struggles, and moderation all reflect this theme. Everyday tasks and the convenience of life involves a wish to not have to dread everyday tasks. However, convenience does not mean outright efficiency in daily life.

A certain shyness and need for encouragement is part of the experience of some older people in this society. There is also a tendency to seek safety and hold on to traditions. This theme involves the need for humaneness in services and a sense of respect, especially when dealing with people who are no longer able to look after themselves. It is also related to apprehension about bothering relatives and friends. In a society that emphasises youth and vitality, people can feel apprehensive about disturbing "busy people".

Social interaction is seen as important, but within a respectful limit. Effort is made to prevent isolation by seeking the company of closest people. On the other hand, there is a wish to be left in peace when the person prefers to be alone. Relatives form a safety net, and older people also look after the younger generations in different ways. Seniors support each other in practical and emotional ways. True friendship is valued highly, and social media, for example, is deemed a superficial, gossipy form of social interaction. A joy of life and humour are part of the concept of what makes a good life.

Seniors' experiences of new IT technologies and applications are highlighted particularly well by the Life 2.0 project. It offers a senior user view of a technological change which represents a difficult leap for inexperienced users who have used very different types of technologies for the most part of their lives. Previously, devices had a single operation, and concepts such as trying different routes to achieve the end result - a characteristic of many IT solutions today - are alien to older people. Mistakes are feared because of the idea that there is a single correct way to operate a technological device. The jargon related to new technology is also unfamiliar and it contains a lot of English words, which alone can make it difficult to understand. Peer-to-peer activities appear to be an effective solution in senior learning of new technology. A senior peer can explain the operation of a new technology in a way that is easy to understand. They can also explain and proceed at a suitably slow pace. Some older people have formed informal groups in which one computer-literate

person does everything on behalf of the others. Younger relatives can also offer IT support. Another interesting factor is the clear suspicion older people feel about the Internet as an expansive, open environment that can seem alien and frightening to people who have spent their lives within a limited local circle.

The senior perspective also includes the idea of stigmatisation. For example, seniors may feel uncomfortable about products and services that are exclusively aimed at older people and be reluctant to identify with them. Despite health problems, seniors want to live in their own homes like everyone else and make their homes stylish and comfortable. Normalcy and honesty are important aspects for example in marketing when talking to grown-ups. Older people are critical consumers who mostly buy only things they need and who have a critical attitude to advertising. Modern advertising with its beautiful, smiley characters is seen as cloying and unrealistic. Older people wish for support and respect as adults as they seek the same goal as society as a whole: that older people could look after themselves and others in their residential and social environments as long as possible.

Development possibilities for well-being

Based on the user-driven development experiences described above, various user methods can be applied in development projects to design solutions that support

well-being in older people. Some of them should be adapted, since user information reveals different approaches and solutions depending on the context and the background of senior users. Well-being especially seems to be about being able to lead a meaningful and rich existence, not just about technical issues of everyday life and health. In well-being development, this type of in-depth user understanding deserves interest.

There are interesting lead users among seniors. These include retired professionals of different fields and active NGO actors. As users, older people have resources to activate others, promote solutions to others and act as advocates for others. If there are no such agents among the user participants, attention should be paid to giving opportunities to slower participants, for example by giving them a chance to write their thoughts down after the event. Guided self-reporting is well suited to collecting user information with older people, as it allows everyone express themselves at their own pace. A calm pace is important in co-design and other feedback activities with older people, especially in groups that don't have lead users. Developers must allow enough time, since older people are better experts of well-being than people with busy careers. Home interviews offer plenty of bakes, coffee and life experience. For young students and anyone battling in the world of work, user research with older people offers insight into how to live a good life.

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Encouraging physical activity among older people living in assisted living facilities

- Supporting functional ability through cooperation between physiotherapy students and the staff of City of Lahti assisted living facilities

It is important that older people living in assisted living facilities engage in regular, goal-oriented physical activity in order to maintain independent functioning. This article describes a collaboration project of the City of Lahti elderly care homes and the Lahti UAS Faculty of Social and Health Care. The project was aimed at promoting individualised physical activity to help maintain functional capacity among care home residents and offer physiotherapy students an authentic learning environment in which to apply knowledge of functional ability assessments and individualised exercise plans. It was also an opportunity for students to practice interacting with customers and care home staff.

The Elderly Services Act (Act on Supporting the Functional Capacity of the Older Population and on Social and Health Care Services for Older Persons) was adopted in 2013 and amended in early 2015 (Finlex

2012). The Act places emphasis on services delivered in home settings. It states that if an older person needs 24-hour service and long-term care, it should be provided in the form of institutional care only if there are medical or safety grounds for doing so. In the City of Lahti 2015-2020 action plan for well-being in older people, one of the objectives is the identification of older people whose functional ability is at risk and the development of services aimed at them. In the context of this objective, the collaboration project seeks to improve exercise opportunities and everyday activity for older people.

Lehtioja and Onnelanpolku assisted living facilities

In 2014, a service structure reform implemented in the City of Lahti elderly care services included the closure of nearly 300 long-term care places at two hospital wards.

These were replaced by places in two new assisted living facilities. The Lehtioja facility has 195 residents and the Onnelanpolku facility has 96 assisted living residents. What is more important than laws and guidelines is to enable every older person to have a humane and active life that is as normal as possible, regardless of what type of help they need. A hospital is not an appropriate place to live. Assisted living facilities are homes, even though they are attended by 24-hour care staff.

The elderly residential care service of the City of Lahti states its vision as "Oma tupa – oma lupa – yhdessä toimien" ("My house, my permission, working together"). In addition to the vision, strategic themes have been formulated to lead the service structure reform and steer the daily operation of assisted living facilities. The themes describe residents' right of self-determination, a customer-oriented approach, choice and opportunities to be heard, the right to a home and daily life, exercise, outdoor visits and social life. Lack of physical activity poses a risk especially with older people. Physical activity and outdoor visits should be promoted among older people and those with cognitive disorders through individual and meaningful everyday activities. The objective of supporting residents' functional ability is to promote well-being and health as well as prevent falls and accidents. Fear of falling is common among older Finnish women, but suitably intensive and diverse physical activity can help prevent age-related reduction of functional ability and improve physical functioning. Although exercise

did not reduce the number of falls, it reduced the number of injuries caused by falls and requiring medical care. Intensive physical exercise is positively linked to physical functional ability, including among dementia patients, when taken for a sufficiently long period.

Cooperation between Lahti UAS and assisted living facilities

The Lehtioja and Onnelanpolku facilities employ practical nurses, registered nurses, physiotherapists, occupational therapists and counsellors. The aim is to expand UAS cooperation beyond the conventional clinical practice periods offered to nursing students to also include other disciplines. The idea is to offer residents new dimensions from regular life outside of conventional care - which is sometimes given too much emphasis - and make them more active. Cooperation between physiotherapy students and staff members has enabled the new assisted living facilities to increase indoor and outdoor physical activity among residents through individual and effective methods.

Planning began in autumn 2013, and in November 2013 students started a project-based practice period at the Lehtioja facility, which was opened in late 2013/early 2014. The aim was to activate residents through physical exercises and new approaches. Different types of measures including functional ability testing, instructed exercise sessions, theme days, thesis projects and clinical practice periods were planned for the development project.

Handbooks and materials for physical activity promotion

In 2014 and spring 2015, six physiotherapy students completed a project-based practice period at the Lehtioja facility. The students produced three handbooks for staff and family members.

- Daily activation of bed rest residents of Lehtioja. An exercise programme.
- Daily activation of residents at the Lehtioja facility - ideas and development of outdoor activities. Handbook for staff and family members.
- Chair exercises for Lehtioja residents. A staff handbook.

In summer 2015, three physiotherapy students completed a practice period which resulted in the new gym of Lehtioja being made available for staff members in order to enhance occupational well-being. Staff are given fitness tests and individual gym programmes. The effects of gym training will be monitored and evaluated as part of a thesis project.

Project-based practice periods will be extended to include social service and nursing students. The new approaches and existing good practices will be further strengthened, especially through multidisciplinary cooperation. Service managers, therapists, other staff members and residents can contribute new ideas for cooperation activities in practice periods or thesis projects.

Functional ability tests and individual exercise programmes

Individual functional ability tests and supervised exercise programmes for residents were carried out at the Lehtioja facility in April 2014 and March 2015 and at Onnelanpolku in November 2014. The next functional ability testing session is scheduled for December 2015 at Onnelanpolku. By autumn 2015, functional ability tests and individual exercise programmes had been carried out with 43 residents at Lehtioja and 12 residents at Onnelanpolku.

The students work in teams of two or three. Each team includes a first-year student whose task is related to a course in the assessment and description of functional ability. Each team also includes a final-year student, whose task is related to a course in the planning and delivery of physiotherapy for older individuals and groups. Although the students work together, the younger student is mainly responsible for functional ability testing and the older student is mainly responsible for the planning and instruction of the exercise programme. The functional ability tests include a hand grip strength test, peak expiratory flow (PEF), and the Short Physical Performance Battery (SPPB), which includes balance, transition from sitting to standing, and walking tests. The test results indicate areas of physical functional ability in which the older person is having difficulty, and they can be then used to design an individual exercise programme. The programme takes into account residents'

individual preferences and possibilities for regular exercise under staff supervision. The students visit the facility to demonstrate the individual exercise programme to the resident and a member of care staff, who can then continue the programme independently. Regular exercise of reasonable intensity can also help promote functional ability in older people with weakened capacity.

Service managers, therapists and teachers meet with students regularly to give feedback and plan the activity. The contents and methods of test sessions are planned together and revised as needed based on assessment of previous sessions. Two teachers are responsible for supervision. They work in close cooperation with staff members and, especially during test sessions, with therapists in order to ensure that tests are carried out in a safe and reliable manner. The presence of family carers and coordinators from Ikinä (a development project for the prevention of falls in older people) during individual exercise sessions is important in order to ensure that the programme becomes part of the resident's daily routine. The programme is entered in the facility's information system to enable care staff to lead the exercise programmes.

The role of the collaborative activity in learning for UAS students

The Lahti UAS Degree Programme in Physiotherapy utilises learning environments that enable students to learn in authentic settings. Authentic learning involves

complex tasks which require time, different perspectives and resources. The learning process characteristically takes place in a collaborative environment. Authentic activity is broad-based and uses interdisciplinary approaches. It can lead to a range of different solutions and applications as well as innovations. Critical thinking, creativity, collaborative development and activity, and the creation of new meanings are at the core of transformative learning. Learning takes place in communities which allow a learner to develop as a person. Transformative learning provides the basis for lifelong learning. It results in true, practical expertise and a strong professional identity.

In the physiotherapy programme, learning is workplace-oriented, which means that it involves close cooperation with industry representatives and workplace organisations. Research knowledge is applied in practice through learning assignments. According to the National Qualifications Framework, graduates must be able to demonstrate good command of the subject matters and the ability to apply their knowledge and produce creative solutions. They must be able to communicate orally and in writing to both specialist and non-specialist audiences. These skills are particularly important in the context of the reorganisation of social and health care services.

Conclusions

Cooperation with the assisted living facilities of the City of Lahti has benefited both parties. The facilities have gained resources for the

development of activities from the students. Students have gained a meaningful learning environment where they can perform learning assignments and at the same time genuinely promote physical activity among the facilities' residents in cooperation with the staff. Care staff have gained additional tools for supporting residents' functional ability and introducing activity in their everyday lives. Commitment to long-term collaboration lasting several years facilitates goal-oriented development activity

with students and supervising teachers. This can also include practical, course-specific cooperation projects, thesis projects, and project-based practice periods such as those described here. In innovation, the focus is on projects that are designed together with the customer and which transcend organisational boundaries, as well as experiments that enable customers and students to design new products and services together.

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Promoting exercise guidance skills among care staff as part of older people's well-being

This article is based on a research-based development project carried out as a thesis project in the Lahti UAS Master's Degree Programme in Rehabilitation on the topic of supporting independent living in older people through exercise guidance. The well-being of older people depends on multiple factors, some of which are determined in adolescence and beyond. Although functional ability does not guarantee well-being in older age, good, holistic functional ability can nevertheless support it. Well-being is a highly individual and multidimensional concept. A healthy lifestyle can extend the length of good-quality life by preventing strokes, memory disorders and other brain-related disorders.

Well-being and functional ability in older people

Personality can be seen as an underlying factor of well-being, since an old person's beliefs and attitudes to life can influence happiness more than personal resources do. An older person's attitude to his or her abilities has a bearing on the capacity to live and cope independently. In future, these attitudes will be increasingly

important in the well-being of older people, as technological developments require everyone to learn to use new equipment. Older people's attitudes to illness, ageing and changes in functional ability are crucial, since factors such as perceived health, life satisfaction, sense of worthiness, and social support reduce mortality risk in older people.

Physical activity is very important in health promotion in older people, since improving activity levels can influence functional capacity as a whole by increasing social contacts. Good physical functional ability enables the person to engage in outdoor activities and thus supports social networking and ability to do things outside of the home. In daily activities, mental capacity and social capacity are strongly intertwined. Holistic functional capacity enables older people to engage in everyday activity.

Older people's functional ability is linked positively to holistic well-being, and perceived functional ability correlates with perceived well-being. Suitable physical activity in appropriate amounts can be seen as comparable to pharmacotherapy in maintaining and promoting health and functional ability. Exercise helps

prevent disease and active ageing, although, as people get older, individual differences influence the ability to cope with age-related challenges. Age is not an obstacle to the benefits of exercise, as abilities such as balance, reactions, muscle strength and flexibility can be exercised throughout life. The psychological, physical and social challenges and experiences offered by physical activity support basic brain mechanisms in older age and may even increase brain tissue. Brain processing capacity is fundamental to posture control, which is why healthy brain function helps prevent falls. In many cases, a fall can have serious consequences and a detrimental effect on an older person's daily life for years after the fall. Balance and muscle strength training can be effective in preventing falls, along with alterations in the home environment.

The best time to build bone density is over by the time a person reaches adulthood. Bone strength can be supported by bone exercises and good nutrition. Bone strength is important, for example, to

the respiratory capacity and fracture susceptibility of older people. Nutritional requirements change with age, for example with regard to vitamin D which promotes bone health, and a healthy body weight influences quality of life, health and mortality risk.

Boosting functional ability through exercise guidance

In Finland, the role of exercise guidance and multidisciplinary cooperation in health promotion has become very prominent especially in this decade. Exercise guidance

requires cross-sectoral cooperation. Better cooperation facilitates effective health promotion in older people, and health promoting services can help to extend functional ability in later life. Older people benefit from guidance on well-being and health. Exercise guidance plays an important role in health promotion by supporting health and functional ability.

In exercise guidance, balanced interaction and resource-based problem-solving are emphasised. Instructors need to be able to activate customers by giving personalised advice aimed at motivating the customer to make changes and maintain a new lifestyle. Exercise advice can include various tests and the use of online applications as well as printed materials. Tools include various types of equipment and guidelines. Monitoring can take place by phone, by email and in meetings.

Competent exercise advice can influence the holistic functional ability of older people and, at its best, promote personal responsibility for one's life through various creative approaches. Exercise advice can influence the mobility, mood, need for hospital care, and quality of life of older people.

Promoting expertise in exercise guidance – results of the development project

The development project was aimed at developing exercise guidance skills among care personnel and producing an action model in cooperation with care personnel. A short training session was held before work began on the action model on topics chosen based

on the results of a survey carried out with care personnel. Key findings were that nurses' exercise guidance skills vary and that, when giving exercise advice, they give reasonable amount of consideration to factors that support lifestyle changes. They had good awareness of how promoting physical functional ability, mobility and safety and consideration of health problems can help prevent falls. Some nurses were not aware of the role of holistic functional ability in older people's ability to live independently.

The exercise guidance action model was created in cooperation with home care, home nursing and practice nurses based on the learning cafe method. Key issues identified in the discussions led to the keyword "everyday morning", which was then used to define the action model. During the development project, the action model was used with new customers including older people who had had a fall as well as customers coming for an annual check-up. Nurses used the FROP (Falls Risk for Older People) form to refer customers for further measures, for example, with a physician or a physiotherapist.

The feedback discussion on the development project indicates that even short training sessions designed for nursing personnel can positively influence the provision and content of exercise guidance. Information

obtained from the survey results regarding the varying level of exercise guidance skills among nurses supports the idea of tacit knowledge sharing between different workplaces, for example by using the learning cafe method.

Conclusions

Holistic well-being requires older people to adapt and have a positive attitude to ageing. Good ageing is a long-term process supported by proactiveness in later life, changes designed to support health and well-being of communities and society as a whole, and positive attitudes to older people. Practical consideration of factors that influence well-being in older age is important at all levels of society. Social and health care and physical education professionals play an important role in this work. The development of their professional skills and cooperation skills and the regeneration of cross-sectoral practices at grassroots level requires a holistic view of social and health care and physical education at managerial level and making changes in task allocation between these sectors. It is hoped that the social and health care reform along with the local government reform will lead to clearer understanding of these wholes to ensure good access to high-quality low-threshold services that promote well-being in older people.

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The role of social work graduates in supporting well-being in older age

Good elderly care and the changing care and nursing needs of senior citizens are frequently discussed in the media. Discussions usually focus on external issues related to ageing, such as physical capacity and the ability to live independently. Almost without exception, the needs are also examined from the point of view of cost and service provision. What is missing is holistic consideration of older people – after all, a person is a psychophysical whole that may also need support with interaction and social relations in order to exist.

Universities of applied sciences play a central role in the development and provision of expertise needed in senior services today and in the future. Bachelor of Social Services graduates work in demanding and diverse expert roles in different social and health care environments and with customers of different ages, life stages and circumstances. They need the ability and expertise to interact openly with different types of people and be able to support individuals, families and communities in analysing, attaining, maintaining and promoting their well-being through changing life circumstances.

Social care education at Lahti University of Applied Sciences

Social care education at Lahti University of Applied Sciences is focused on educational and counselling practice that promotes critical and social inclusion. The focus areas include the reinforcement and support of customer inclusion and the prevention of exclusion. Two optional paths are available: the Social Pedagogy for Working with Adults path provides a broad set of skills for rehabilitative work with adults. The social pedagogy framework of the Degree Programme in Social Services provides the basis for curriculum content, the learning concept, the delivery of the study programme, and students' personal learning process.

The knowledge base of UAS Bachelor of Social Services graduates is typically grounded in social pedagogy, which emphasises participation, dialogue, action, experience, community and an everyday-life-oriented approach. In work with older people, the social-pedagogical philosophy manifests, for example, in the recognition of each person's need for a meaningful life. A person's right to holistic well-

being is also recognised. This means placing focus on active and communal everyday life to enable older people to play active roles according to their abilities.

Dialogue, positive ambience and inclusion can be promoted by consciously building a community aspect into the daily lives of older people. For example, care homes are beginning to offer joint activities that stimulate both residents and staff members. Shared activity and inclusion reinforce engagement in the community and facilitate good everyday life, which includes an open and creative atmosphere, listening to others, trust, and consideration of others.

Education for working with seniors

The Degree Programme in Social Services includes a course on the characteristics of an ageing society, which examines ageing as a psychosocial and societal phenomenon and from the point of view of everyday life. The curriculum also includes methodologies for working with older people. The aim of the course is for students to learn common approaches in guidance and counselling, such as the dialogic, reflective, solution-oriented and cognitive approaches. Students also learn to use counselling methods with a customer-oriented approach in the customer's everyday life. For example, the methods include creative writing, word art, literature therapy, visual expression, empowering photography, physical activity for seniors, and drama. All these methods are designed to empower the customers and support their self-resources.

A concrete aim of methodology studies

is for students to learn to understand how different methods can be used as guidance and rehabilitation tools. Students begin to see the role of these methods in supporting a person's growth and understand them as part of individual and group activities. To support these aims, the teacher designs the course in cooperation with the students in order to make it as social as possible. This encourages students to work with a creative and applied approach both as a team and in self-practice.

The course includes the planning and implementation of practice sessions, for example during clinical practice periods or by having the students play the role of a customer. Practical work is supported by a reflective reading group in which students deepen their theoretical knowledge. The reading group produces a report that can include for example literature-based reflection of customer needs and the suitability of different methods in social work.

During contact learning sessions, students can experiment with new things in a positive, supportive environment. It is important for students to experience the activities personally so that they understand how they can make customers feel.

Literature therapy as an example method

As described, the purpose of action-based methods is to support and empower. Literature therapy, such as story-telling, reading and writing, can bring something new to an older person's life. Literature therapy is considered an interactive work method that uses word art to promote an interactive process.

Communality and sharing through dialogue are emphasised in literature therapy. It is seen as an activity that, through dialogue, can help offer mental resources to a group or individual. Conversations with older people are often based on texts written by others. Reading stories helps older people reminisce and tell stories from their own lives. It is also important to ensure that each person has a listener and that everyone can listen to other people's stories. This way, the participants can share and compare their memories with others.

Students gain experience in supporting customers in their daily lives and using different types of texts and stories to generate discussion and reflection on various aspects of life. The core idea of literature therapy is to find, discuss and reflect on new perspectives by sharing and listening. The process is supported by different ways of using literature as word art, as words are linked to emotions, memories and ideas. It is important to recognise that the text should be used as a catalyst to initiate an interactive process and dialogue. When working with customers, the process itself - not the outcomes - is important.

In learning, literature therapy, like other methods, is rewarding to students and encourages creativity. It enables students to develop their self-expression and confidence in different situations. Since the ultimate goal is to support customers, through their own experience students understand the

importance of commitment and patience and recognise that the process is always activated on the customer's terms.

Conclusions

One of the basic tasks of social care graduates is to support and help customers, such as older people, to identify personal resources, those of the immediate community and society at large and learn to use these resources in a meaningful way in their lives. In guidance and counselling, social care graduates support customers in different ways to help them lead good, happy everyday lives through activities that emphasise listening, shared reflection, reminiscence and story-telling. Through these, customers can create their life story and reflect on their life choices. The core idea is that each person should have someone who listens, someone to reflect with and explore matters that are important to them.

The use of action-based methods with customers requires students to learn, experience and apply what they have learned in practice. The adoption of action-based methods as part of professional practice is not just about customer-oriented activity in customers' daily lives - social care professionals can use them to support their own mental resources. Action-based methods emphasise personal encounter and working to benefit the customer - his or her rehabilitation, growth and well-being.

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This collection of articles describes various projects, learning environments, learning approaches and development work implemented at Lahti University of Applied Sciences. The publication is related to the institution's Well-Being and Regenerative Growth focus area.

LAMK

Lahden ammattikorkeakoulu
Lahti University of Applied Sciences



The publication serie of Lahti University of Applied Sciences
ISSN 2342-7493 (print)
ISSN 2342-7507 (net publication)
ISBN: 978-951-827-248-2