

# Competences of older people to use smartphones as a factor of wellbeing in contemporary society

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**Abstract.** One of the key reflective aspects of modern society is the application of information communication technologies. According to SEB Bank and the information and communication technology company TEO [1] more people aged 65 and over are discovering the Internet and smart technology services to manage finances, communicate and spend their leisure time. Technological development has a large group of supporters even among seniors; however, many older adults have no skills and neither the intention nor the possibility to use digital devices which are critical for successful functioning in society. Escape from technological innovations in no way makes life easier. Modern smartphones can make life more enjoyable for seniors and to benefit society. The aim of this paper is to investigate seniors' opinions about the importance of increasing competence in smartphone usage in their daily lives. The investigation was conducted in two stages: 2018 April and 2018 September/October. During stage two, groups were former of 10–12 seniors. During and after the training, the participants were interviewed in focus groups about their opinions. The study revealed that older people's interest in new technologies activates their participation in the learning process, promotes interest in innovations and creates conditions for wellbeing in society.

**Key words:** information communication technologies, technological development, seniors, competence in smartphone usage, older people's education.

## 1 Introduction

The age structure of the population of Lithuania has undergone significant changes during the last five decades. Proportions of all age groups in the total number of the population have undergone changes; however, these changes went in different directions. The proportion of the youngest population has decreased almost twice – from 27 percent in 1959 to 15 percent in 2010, and the proportion of those over 65 has doubled – from 8 percent in 1959 to 16 percent in 2010. Mikulionienė [2] writes that the ageing of the Lithuanian population is seen in the quantitative data (growth of the absolute number of older people) and proportionally (when the proportion of children shrinks, the proportion of older people grows correspondingly). In order to measure the Lithuanian population's age structure in a wider context, it is useful to compare it to other EU member states. As Eurostat data indicates, the average growth of ageing population in European member states was 1.9 percentile. It is the percentage of 65-year-olds and over in comparison to the number of the rest of population [3]. In the future, according to Eurostat population projections (baseline scenario), the proportion of the youngest population (aged 0–14) will decrease in Lithuania up to 13.7 percent in 2050.

According to Statistics Lithuania, in 2003 over 20 percent of the population of Lithuania was 60 years old and older, and it is predicted that by 2030 the share of the population that is 60 years old and older will have reached more than 27 percent. As scientists have pointed out, a longer average life expectancy has caused changes in many domains of human life. Longer lives are accompanied by changing behaviour, norms and values, changing of family institution (family relationships, increasing duration of family members' co-survival), and changing education careers (the need for life-long learning arises along with the increase in lifespan and accelerated social changes). Therefore, it is recognized that, with the ageing of society, more attention should be paid to the quality of life for older people, because it is this group of people that will determine the general standard of living and societal stability of the country. One of the key reflective aspects of modern society is the application of information communication technologies (ICT). Though a spectrum of technologies has found its way to Lithuania relatively recently, they were first introduced in Lithuania 20–30 years ago. Many older adults have no skills and neither the intention nor the possibility to use ICT, which are critical for successful functioning of society.

Learning of older adults also has the immense potential to improve the levels of productive ageing by ensuring that older workers have the necessary skills required by potential employment opportunities [4, 5]. Since older adults tend to learn in non-formal rather than formal settings, a key question arises – how far ICTs actually influence their daily lives and whether this is, in fact, perceived as a learning area [6].

**The aim** of this paper is to investigate seniors' opinions about the importance of increasing competence in smartphones usage in their daily lives.

## 2 Older people's education

Older people's education is rapidly becoming one of the key elements in determining the development and advancement of the educational system of a country. By creating opportunities for personal fulfilment and for meeting the requirements of the labour market, the education of older people assists humanity in dealing with challenges springing from the globalization processes, demographical changes and development of knowledge and information technologies. Older people's education within the context of lifelong learning has established itself as a norm in developed societies. The challenges of world economies, social life and ecology demand not only restructuring of the economy but also restructuring the systems of social wellbeing and education. The purpose of such changes is to highlight the importance of the idea of sustainability for society, and this, in its turn, calls for changes in educational and learning aims. Adult education may provide the required conditions and meet the needs of learners for the positive processes of this change. For this reason, the system of adult education including older people's education is part of key changes in implementing new ideas and fostering society's capacity for change [7].

In the changing environment, one of the basic principles of the modern society is democracy. In practice this translates as the accessibility of diverse educational services for all who are willing avail themselves of these services [8]. Another feature is the activeness of the learners. According to Mikulionienė [2], the changing structure of the population from society with the dominance of young people to a society where all age groups are proportionally represented is and will continue to be a challenge for the social, economic and cultural development of society. Due to the scope and irreversibility of the phenomenon, demographic ageing of the population is altering. The structure of population needs and simultaneously challenges the social institutions whose function is to meet those needs. A growing number of older people encourage revisions and adaptation of

the newly emerging needs in human resources in the areas of social security, economy, health protection and education. The growing average estimated age brings alterations to the individual's development and to the development of a family institute and education, since the societal growth brings forward the need for constant learning and upgrading. Social inclusion of older people presupposes opening up accessibility and participation in learning [9]. According to Gray [10], social inclusion occurs, when every society member actively participates in social life, and no activity, meaningful for societal development, is denied. In Peters' and Armstrong's [11] opinion learning should be seen as the central function in life. Speedy change of the learning contents, methods of teaching, and information transmission media introduce amendments to the conditions of the changing life and work. Experiential learning is indispensable, and this kind of learning is seen as self-guided learning, while the responsibility for the process stays with the learner. Learning is oriented to the achievement of social reform goals: it can upgrade the social and economic status of the individual, and it can solve social inequality and other societal problems [11].

The ageing of the population and the consequences of this phenomenon create problems that draw researchers' attention worldwide. The focus is on many aspects of this situation: changes in workforce supply, the effects of the ageing of the population on the social welfare systems, age influence on quality and productivity of work. Lithuania mostly focuses on the capabilities of the elderly to participate in the labour market and on the demographic and social effects of the ageing of the population. To deal with this problem, European Union member states with regard to the Lisbon Strategy [12] seek to implement measures which benefit the employability and social inclusion of the elderly. Today the key measure in the state policy for the elderly is the National Strategy of Overcoming Consequences of Ageing by which Lithuania started consideration of the problem on the national level: "Though many a measure is implemented for provision of active personal, public, professional and cultural lives for senior citizens, these measures do not meet completely all the required alterations for the welfare of the elderly, therefore, there still remains the need to combine efforts to build environment in which the elderly would live active personal, public, professional and cultural life" [13].

Although competence development is probably the most accepted goal of all forms of education, this is not always the case in older adult learning. This stems from the conjecture that older persons do not need new skills or knowledge, or that they will have no opportunity to use their new competencies [14].

### **3 Competences in using technologies**

The spread of technologies is occurring regardless of the age group; therefore, all age groups will have to adapt to be able to function appropriately in modern society. New technologies are cable and satellite television, computerised communication, personal computers, and new bureau technologies, specifically online information services [15, 16]. Tomczyk [16] defines information technologies as a totality of information processing methods and tools. Researchers identify that the effect of new technologies on the humanity is multiple: it is related to building material and spiritual values and social-cultural environment [17–19]. The stress falls on the characteristics that the skills to use ICT are indispensable for all social groups and layers. They are instrumental for the successful participation in societal life. Modern ICT are applied to many areas of societal life; therefore, the abilities and skills to use them are of importance to all groups of society. Tolutienė and Puškorius [20] highlight the fact that the main goal of ICT use in education is to modernise the process of education and to provide the conditions to seek the modern goals of education: 1) to develop important

societal skills for a complete life in the knowledge society (abilities to learn, critical thinking, creativity, information technology skills); 2) to update teaching content and to integrate diverse data; 3) to apply new teaching methods; 4) to form new learning and life culture. These goals are oriented to the learning individual and the individual's adaptation to fast-changing society.

## **4 Methods of active learning enhancing participation**

The application of the learning methods is conditioned by the purpose of learning, programme target group, interests, preferences, experience, and aims of teaching and learning. Active participation in the learning process enhances the effectiveness of learning, cooperation among learners, and strengthens their trust in each other. The application of active methods helps the learners activate stored knowledge and strengths and to channel them in a useful direction for the whole group. Older people are often experts in diverse areas. They bring their life and work experience to the group, the focus in such situation lies on the spread of such expertise for the advantage of the whole group and not only for the learning needs of one individual.

The choice of the learning method affects the learning quality which may be interpreted as a degree of the learning outcome. Some methods directly influence the achievement of the learning outcomes, and some methods influence vicariously and as such do not produce a substantial impact upon learning outcomes. Active participation in the learning process boosts learning effectiveness [21]. Socializing and cooperation among participants of the process brings forth the atmosphere of trust and advances further learning. Yet, learning should not only be active, but also interesting, successful and pleasant. Indrašienė and Žibėnienė [21] state that among the best learning motives are success and pleasure of learning, which can be achieved through active learning, since learning through self-analysis, the opportunity to evaluate oneself and to make choices create an atmosphere of successful learning. According to Longworth [22], learning today is seen as a natural and unfolding process, which turns into a pleasant activity spanning the length of individual's life. It happens in all areas and allows individuals to augment personal abilities, competencies, and provides self-trust for an individual in the future.

Bonwell and Eison [23] stated that "active learning" occurs when learners are given the opportunity to take more interactive relationship with the subject matter of a course, encouraging them to generate rather than simply receive knowledge. On a practical level, active learning includes complex group exercises in which learners apply course material to "real life" situations and/or to new problems. Bonwell and Eison [23] defined "interactive learning" as the interactive means to acquire information through hands on. Teachers use interactive learning as the way to get their learners engaged and cause their interest in subject matters as they are not always successful at "getting their students on board" with a typical lecture format. Also, interactive learning often involves the use of computers and other tangible equipment. Scientists claim that active learning can support learners' development as:

- successful learners through using their imagination and creativity, tackling new experiences and learning from them, and developing important skills;
- confident individuals through succeeding in their activities, having the satisfaction of the task accomplished, learning about bouncing back from setbacks, and dealing safely with risk;
- responsible citizens through encountering different ways of seeing the world, learning to respect themselves and others, and taking part in making decisions;

- efficient contributors through interacting together in leading or supporting roles, tackling problems, extending communication skills, taking part in sustained talking and thinking, and respecting the opinions of others [23].

Learning from experience is one of the most important and natural means of learning available to everyone. The great strength of experiential learning is that it provides an underpinning philosophy that acts as a thread, joining many learning theories together in a more unified whole. Dewey [24] posits that learners' learning needs had to be integrated with social demands. While he supported the notion that learners required some degree of freedom, a correspondent degree of structure was equally essential. He urged that freedom and structure (students' interests and needs and subject demands) must be integrated rather than made "antagonists." Dewey [24] thought that a potentially organic relationship existed between learners and their subjects. For this potential to be realized, Dewey formulated two educational principles: experience and interaction. Kolb [25] stressed that experiential learning theory offers the foundation for an approach to education and learning as a lifelong process. Kolb's experiential learning cycle involved concrete experience, observations and reflections, formation of abstract concepts and generalizations and testing implications of concepts in new situations. Silberman [26] stated that an interesting and disquieting aspect of experiential learning is that people do not learn from experience alone. To produce learning, experiential episodes with briefing, guidance, planning, feedback, reflection and sharing of insights should be combined. Here are three chronological contexts in which active experience education is integrated with conceptual and factual content, and deliberate, and collaborative reflection.

## 5 Research methodology

Qualitative research methodology was chosen for the study. The reasons for the selection of a qualitative research are the holistic approach to the object, obtaining of quality data, the openness of the research, the status of the researcher as a cognitive instrument, and the experience gained and used in describing the object in the study itself. According to Gibbs [27] and Flick [28], the holistic approach to the object is when the object is perceived as a solid, complex system. A researcher should not only explore the application of ICT in learning, but also to understand them as details of the educational process, the importance of the whole educational process, and most importantly, for the informant himself. The investigator as a cognitive tool interacts directly with the informant and other components of the educational situation. By performing the function of a scientific cognitive tool, the investigator tries to perceive the nature of the phenomena of education [29]. From this point of view, it is important for a researcher to conduct an investigation that not only records statistical data, but also observes the investigative reaction. Researcher's question should not provide the answer in disguise. It is very important to analyse the experience of research participants. The investigator seeks to uncover categories and dimensions, deepens the details, and interprets them in the context of the entire. The emphasis is on educational processes; individuals and culture are analysed, and the results are interpreted in the historical and social context.

The focus group method was chosen as a qualitative research form for detailed descriptive data collection in small groups, focusing on all topics of interest that were gathered. It is a form of research that highlights the experiences, interests, preferences, attitudes and opinions of group members [30]. Each member of the group is encouraged to express an opinion on the subject.

The research was conducted in the international project “Location-based games as a contemporary, original, and innovative method of seniors’ teaching and learning” (project number: 2017-1-PL01-KA204-038869), Erasmus<sup>+</sup> programme key action 2: cooperation for innovation and the exchange of good practices. Two training stages, a pilot stage and a main stage, were conducted in the period of 2018 April 9 – 30 and 2018, September 24 – October 5. The training course lasted for 10 days with 10 same topics for each group. During each stage two groups of seniors were formed. The requirements for the participants were: seniors at the age 60 plus, possession of smartphone and basic knowledge of smartphone use, appropriate state of health – being able to walk about two kilometres per day. There were 10–12 participants in each group. Totally there were 49 participants: 9 males and 40 females of age 60–80 from Vilnius city. Participants had no possibility to transfer between groups. The research took place at Mykolas Romeris University in two periods: April 2018 and September-October 2018.

A narrative strategy was chosen. The method of data collection was a semi-structured focus group interview after the training course. This strategy meets the goal of the study. This is also appropriate for informants, since the conversation about seniors’ experience is quite attractive to them. Four focus group interviews were conducted with an average duration of 40 minutes. The researchers used a sampling method, which means that the focus group interviews were attended by all training participants and split into groups according to how the training was held. Most of the participants were women. First of all, the participants of the study were analysed and coded. Questions were addressed in an attempt to respond to the purpose of the research, which is inseparable from the experience of the research. All questions are open-ended.

### **5.1 Research ethics**

The participants in the study were given a written consent form to sign before they participated in the study. All participants voluntarily took part in the study. The data transcription and analysis of the research data did not reveal any personal information of any participant. All names and other personal data used in the study are changed at the discretion of the researcher. The data is processed ethically. The quotes, presented in the article with the consent of the participant, are completely unaltered, and are the authentic considerations of the participants (except identity data). Generalised answers are presented from all group interviews: P-pilot stage; M-main stage; Lgb – location- based games method group; Clm-classroom method-based group.

The data are encoded according to authentic phrases in Lithuanian and translated directly to English. The data are interpreted at the discretion of the investigator. The data analysis will be introduced to the study participants during the project events.

The validity of the research is related to naturalistic principles: natural environment as the main source of data; detailed description; the data are presented using the terms of the participants, not the researcher; data analysed inductively, without predetermined categories.

### **5.2 Results of research data analysis**

The participants were asked about their expectations for coming to the training and if their expectations had been successfully met. The research results show that participants have fulfilled their expectations as they “think what they will show us here” (P-Clm), “In fact, expectations have proven” (M-Lbg), “Everything looks perfect to me” (M-Clm), “Really, really, really very good” (M-Lbg), “Everything looks perfect to me” (M-Clm). Some participants were disappointed because the course was short: “Time has passed like



three weeks in 2–3 days, there could be more” (P-Clm), “I would like to have more” (M-Clm).

The participants were asked about the competences they have acquired during the training. The answers are categorised into a few pillars. First, the participants confirmed that they acquired new knowledge about applications and their capabilities: “I used to think about that application that I do not need it, and now I see that it is even very necessary” (P-Lgb), or “Still, there are lots of things you need on your phone” (M-Lbg), “It’s useful to know all, some do not even know the applications that they are” (M-Clm), “But most importantly, there are a lot of features I did not know about, you need to look for, you need to try” (M-Clm). One of the most often answers is that “Still, there are a lot of things you need on your phone” (M-Lbg), “I did not know that such things exist” (M-Lbg).

Second, part of participants has enhanced their existing skills “But just like I expected, the topics were somehow heard or somewhat known, but we will learn how to use it very well” (M-Lbg), “And I’ll add something <...> that’s the kind of things you did not know, now we know more, deeper” (M-Lbg). They also give examples of what was known and new: “And my surprise is that there can be a translation of voices that everything is clear to the hand, but that’s the voice” (M-Lbg). But at the same time, they agree that they have improved themselves.

Third, the participants were absolutely happy for the practical applicability of the acquired competences: “It’s very good that everything was done right away, we try, we do, you advise how” (P-Clm), “And I immediately used [QR] in the store because they are everywhere” (P-Clm), “A lot of experience” (M-Clm).

The participants were asked a question about their experiences during the training. Their answers were categorised into two pillars, such as success experience and other emotions they felt during the training. There was full gamut of emotions, but the most highlighted were “fear” and “joy”.

Fear is possible to be analysed from 2 different perspectives. One perspective is “Fear not to damage” the device “It’s the fear of pushing something wrong, damaging what we have” (P-Lgb), “Just be afraid to push something because all sorts of funny things happen” (M-Lbg), “I did know much about it, but I was afraid to click” (M-Lbg), also fear to catch the virus “Fear is always. We are afraid of the virus” (M-Lbg), or fear be charged for unknown reasons “I’m afraid that I’ll click – and then pay” (M-Lbg). This fear has disappeared because of the knowledge and courage that came after training “It helped me to get used to it” (P-Clm), “What if it does not work, it’s nothing” (M-Clm), “Now it will be more courageous to click – it’s clear how the children click, click and succeed” (M-Clm), “I know that I can press phone [buttons] and that [bad] happens” (P-Clm).

Another reason is the fear of asking and the fear to look ignorant “I am sensitive and I felt uncomfortable to ask” (P-Lbg), and anxiety “You may not know, you can ask ten times the same, we always get the answer, here are a lot of positive emotions” (P-Lbg). After the training the courage to ask appear “The feeling is that I’m absolutely not afraid not to know, you will not be considered as fool [laughing]” (P-Lbg), and gratitude to the teachers for attention and patience “And really thank you very much for the patience of the teachers that you put your energy into us” (P-Lbg), “No shame to ask you” (P-Lbg).

Also, joy was highlighted, the joy of cognition and joy of repeating school, “As in the eleventh class; something new; that joy of cognition, like a child” (P-Lbg). The participants were asked what they have enjoyed most and what was the easiest for them. The responses were different: “Most importantly, that was not boring” (M-Lbg), “There was nothing monotonous to be tired of and outraged” (M-Lbg). They did not highlight any learning method. They enjoyed everything “If I could choose, I would take this and that” (M-Lbg).

The local-based games methods caused tension in the beginning “I thought I came here not to play, but to learn the programs” (M-Lbg).

The participants were asked the question about why material that they have learned is valuable to them. The research data shows the practical application of knowledge and courage to help friends during and after classes: “I showed to one acquaintance how to install WhatsApp” (P-Lbg), “Yesterday, a friend came to show me something and shouting “do not break it”, I answered “wait” and showed her what I know [laughing]” (P-CIm). The participants were demonstrating a desire to continue learning: “What courses are planned to improve our knowledge” (P-Lbg), “I want to study it further” (P-Lbg).

Summarizing the research, it can be stated that positive experiences, the seniors had during the training course, encourage their more active involvement in learning and provide more positive attitude to the surrounding environment.

## 6 Conclusions

The participation of older adults in educational activities reflects possibilities for personal development, socialization and the importance of learning. An older person’s satisfaction with life is connected to his or her ability to keep their social roles, be active, get involved into voluntary and cultural activities, and learn new things. Therefore, active participation in educational activities helps older adults stay independent and valuable members of their communities.

This qualitative study has shown that it is important for seniors to have successful training, especially when learning how to use smart phones. It raises their self-esteem, encourages them to try something new, and also improves their quality of life.

## References

- [1] Telia (2016) <https://www.telia.lt/pranesimai-spaudai/siuolaikiniai-seniorai-griauna-mitus>
- [2] S. Mikulioniene, *Socialinė gerontologija* (2011)
- [3] V. Kanopienė, S. Mikulionienė, V. Česnuitytė, *Lietuvos šeima Europos kontekste* (2015)
- [4] S. Cahill, J. Macijauskiene, A.M. Nygård, J.P. Faulkner, I. Hagen, T & D **19**, 55–60 (2007)
- [5] N. Selwyn, S. Gorard, J. Furlong, L. Madden, *Ageing & Society* **23**, 561–582 (2003)
- [6] V. Thalhammer, *Learning across generations in Europe: contemporary issues in older adult education* (2014)
- [7] L. Dromantienė, I. Žemaitaitytė, International scientific conference: conference proceedings (2017) p. 49–60
- [8] H. Boshier, *Towards a Learning Society* (1980)
- [9] I. Žemaitaitytė, *Society, integration, education*. **2**, 260–268 (2014)
- [10] G. Gray G. *Culturally Responsive Teaching. Theory, Research and Practice* (2000)
- [11] J.M. Peters, J.L. Armstrong, *New Directions for Adult and Continuing Education* **79**, 75–85 (1998)
- [12] Lisbon strategy (2000). Available at: [http://www.europarl.europa.eu/summits/lis1\\_en.htm](http://www.europarl.europa.eu/summits/lis1_en.htm)
- [13] National programme for 2012 European Year for Active Ageing and Solidarity between Generations (2012). Available at: <https://www.e-tar.lt/portal/forms/legalAct.html?documentId=TAR.B0F07BD2FA4B>



- [14] M. Formosa, *Learning across generations in Europe: contemporary issues in older adult education* (2014)
- [15] F. Webster, *Informacinės Visuomenės Teorijos* (2006)
- [16] L. Tomczyk, *E-mentor* **4**(36) (2010)
- [17] D.A. Wagner, R. Kozma, UNESCO (2005)
- [18] V. Dagienė, *Informacinės mokymo technologijos* (2008)
- [19] H. Feistm, K. McDougall, *AP & MRCPB*. **1**(8) (2013)
- [20] G. Tolutienė, S. Puskorius, S. TILTAI **3**, 123–140 (2014)
- [21] V. Indrašienė, G. Žibėnienė, *Šiuolaikinė didaktika* (2017)
- [22] N. Longwoth, *LlinE, 1*, 16–20 (1997)
- [23] C.C. Bonwell, J.A. Eison, *Active learning: Creating excitement in the classroom* (1991)
- [24] J. Dewey, *Democracy and Education* (1922)
- [25] D.A. Kolb, *Experiential Learning experience as a source of learning and development* (1984)
- [26] S. Silberman, *The Handbook of Experiential Learning* (2007)
- [27] G.R. Gibbs, *Analyzing Qualitative Data* (2007)
- [28] U. Flick, *An Introduction to Qualitative Research* (2014)
- [29] B. Bitinas, *Pedagogika* **83**, 9–15 (2006)
- [30] D. Wilkinson, P. Birmingham, *Using Research Instruments: A guide for Researcher* (2003)