## Digital competences model for elderly m-learning

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Purpose The objective of this research was to build a digital competences model for elderly M-learning (MCDMSÊNIOR). Each year the number of elderly people across Brazil increases. The Brazilian National Census in 2017 found 30.2 million people over the age of 60, which represents a significant change in the Brazilian age distribution. This part of the population is seeking to acquire and learn how to handle digital technologies, such as mobile devices (MD), which are increasingly present in their daily lives. Based on these social and technological transformations, education has assumed the role of exploring possibilities to help the elderly use technologies. This study hopes to contribute both to the critical and safe use of mobile devices based on M-learning as well as to the construction of knowledge, skills, and attitudes for the use of technologies, through digital competences. Digital competences are understood as the critical and safe use of technologies to achieve diverse objectives such as employment, education, leisure, etc. Therefore, it is pertinent to investigate the digital competences necessary for the elderly to use MD. Method This study was developed using a quali-quantitative approach. There were two target audiences: specialists in the field of gerontology and education, and elderly people 60 years of age or older. Questionnaires were given to both groups and participant observation was applied with the elderly. Results and Discussion Firstly, there were 22 elderly people with a mean age of 71.6 years, 2 of whom were male (9%) and 19 female (91%). Their formal education level was varied, though most had a high level of education. In fact, 50% (n = 11) were High School graduates, 32% (n = 7) had an undergraduate degree, 14% (n = 3) had graduate degrees and 4% (n = 1) had incomplete elementary education. The data obtained mapped 15 specific competences divided into three groups: Functional digital literacy, critical digital literacy, and digital fluency. An action plan including pedagogical strategies and case studies was also developed that can be adopted with the elderly in order to build the digital competence. The construction of the final MCDMSENIOR model enabled an understanding of the needs of the elderly when using mobile devices, primarily regarding the knowledge, skills, and attitudes to solve possible problem situations they may face in their daily lives. It was also established that older people have little knowledge about MD and much less skill in handling. In fact, they had a lot of difficulty using mobile devices. However, they had more advanced development in attitudes. The elderly demonstrated a great deal of desire and motivation to learn how to use MD, despite their lack of confidence or autonomy to use them. It should be noted that these observations and constructions carried out in this study were gleaned from a specific group of seniors, whose profile was more advanced in terms of knowledge and skills compared to other groups of Brazilian elderly who do not even know how to call or even have a smartphone and/or tablet.

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