

***Conceptions of adult education teachers-in-training
regarding the media literacy education of older people.
A phenomenographic study to inform a course design***

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ABSTRACT

This phenomenographic study represents part of an ongoing design-based research initiative to inform the design of a new course on older people's media literacy in the adult-education teacher-education context. The aim was to describe the conceptions of teachers-in-training regarding media literacy education for older people. The data consist of students' written assignments in which they defined the concept of older people, their societal roles, and of the media literacy education targeting them. The participants included teachers-in-training ($N = 22$) from a Finnish university's teacher education program. The data were analyzed qualitatively with the aim of exploring how these students define "older people," the kinds of roles they perceive older people as having, the pedagogical content and approaches they see as most useful in media literacy education targeting older people, and the kinds of learning aims they set for themselves on the course. The results reveal implications for the design of the abovementioned new course.

Keywords: *media literacy, teacher education, older people, design-based research, phenomenography.*



INTRODUCTION

There is no consensus on the definition of media literacy (Koltay, 2016; Livingstone et al., 2012); however, it has traditionally been understood as the ability to use, understand, and create media content in a variety of contexts (Aufderheide, 1993; Ofcom, 2020). The most recent definitions of media literacy also include the ability to use media to participate in society (Hobbs, 2010; Livingstone et al., 2012) and to produce creative and playful media content (Cannon et al., 2018). In current mediatized and digitalized societies, such competencies contribute to enhancing democracy and active citizenship; leverage the possibilities of choice, competitiveness, and the knowledge economy; and promote lifelong learning, cultural expression, and personal fulfillment (Abad Alcalá, 2019; Livingstone et al., 2005; Livingstone et al., 2012; Petranova, 2013).

The world's aging population and the current emphasis on lifelong and life-wide learning call for media literacy education that addresses media literacies across the life course and life span, including old age (Abad Alcalá, 2019; Hobbs, 2010; Rasi, Vuojärvi, & Ruokamo, 2019). Older people are herein defined as individuals aged 65 years and over (see, e.g., Anderson & Perrin, 2017; Ofcom, 2020; Peace et al., 2007), although we acknowledge that a definition based solely on chronological age does not adduce the versatility, complexity, and socially differentiated character of the group of people referred to as "older" (Begum, 2019; Gilleard & Higgs, 2005). People over 65 can play various roles in society and their personal lives (Elder & Johnson, 2001; Peace et al., 2007; Reed, 2013), roles that define their need for media and media literacy education. It is known that older people generally use the Internet somewhat differently than younger age groups, including for different purposes, but there is also diversity among older people in terms of their Internet usage and media literacies (e.g., Anderson & Perrin, 2017; Ofcom, 2020).

The existing research literature reveals that fostering older people's media literacy can promote their participation in the preservation and sharing of culture (Manchester & Facer, 2015), thus allowing them to enhance society's social memory, which is increasingly stored in digitalized and mediatized resources (Säljö, 2010). Being media literate fosters empowerment, liberation (Del Prete et al., 2011), and, consequently, older people's active presence and role in society (Findsen, 2007). This skill set is also crucial to maintaining cognitive functioning and social

relationships (Castro et al., 2018; Chen & Schulz, 2016; Vaportzis et al., 2017) and for obtaining access to health-related information along with the ability to assess that information (Strong et al., 2011).

Media literacy is promoted through media literacy education. The perspective of the learners' stage of life is fundamental in organizing and conducting media education as individuals' media literacy needs, interests, and life roles are related to their age (Hobbs, 2010). Recent research has identified that older people's need for and use of media entail age-specific characteristics. Use and nonuse profiles highlight the importance of recognizing how diverse attitudes and beliefs, dispositional characteristics, education, and socio-economic status influence older adults' views and use of digital technologies (Rasi, 2018). Consequently, the design of both the content and pedagogy of media-literacy education presumes sensitivity to participants' age, needs, interests, attitudes, and beliefs (Vroman et al., 2015) as well as education, socio-economic status, gender, ethnicity, and family situation (Abad Alcalá, 2019). From the teacher's perspective, designing the pedagogy of media literacy education for older people needs to be based on much more than merely knowing how to teach a certain topic or content. Pedagogy implies considering learners as independent thinkers with complex skills and competencies, personal learning histories, social networks, and all that individual learners carry with them as they enroll in education and training (Laurillard, 2012).

One way to meet the need to ensure that effective media literacy education is available to older people is to develop teacher education that better equips future adult educators with suitable pedagogical tools to support older people's media literacies. Regarding the pedagogical approaches suitable for achieving this goal, existing research emphasizes the importance of taking a needs-based approach to foster older people's self-efficacy as users of digital technologies and media and provide social support for their learning, for example, through peer-to-peer teaching (Rasi, Vuojärvi, & Rivinen, 2021). Furthermore, recommendations of media literacy initiatives targeting older people have included limiting class sizes, ensuring a friendly learning environment with teachers who maintain an empathetic attitude, and providing clearly structured educational materials (see Abad Alcalá, 2019).

This phenomenographic study (Marton & Pong, 2005; Svensson, 1997) considers the media literacy education of older people in the context of teacher education. Interestingly, the perspectives of older people

regarding media literacy education have only rarely been included in teacher education programs—even in those targeting adult education. Also, media literacy perspectives in general seem to be rarely included in teacher education (Meehan, Ray, Walker, Wells, & Schwarz, 2015). Following the phenomenographic research approach, this study aims to describe the variation in the conceptions that adult education teachers-in-training hold regarding not only older people and their learning but also how to carry out media literacy education that targets this demographic. The participants' descriptions of their conceptions were collected through qualitative research tools, namely written assignments. The texts were analyzed through a qualitative phenomenographic analysis process.

There is an abundance of research on the conceptions and beliefs of teachers and teachers-in-training in relation to, for example, technology (Koc, 2013), target populations (e.g., students with learning difficulties) (Mady & Arnett, 2015), and good teaching (Maaranen et al., 2016). University students' perceptions of older people and working with them have also been studied (e.g., Conçalves et al., 2011; Kimuna et al., 2005). However, to date, there is no research on the conceptions of teachers-in-training regarding the target group of older people. Interestingly, in medical education, it has been acknowledged that healthcare students' and medical trainees' attitudes toward older adults predict the quality of care that older people receive (Conçalves et al., 2011; De Biasio et al., 2016). Similarly, we argue that the conceptions and beliefs of teachers and teachers-in-training frame the teaching approaches they implement (Ertmer, 2005; Hmelo-Silver & Barrows, 2006) and are, therefore, research worthy.

The study presented here is a sub-study of an ongoing design-based research (DBR) effort (Design-Based Research Collective, 2003; Wang & Hannafin, 2005). During this effort, a new course titled *Older People, Media Education, and Facilitation of Learning* (2 European Credit Transfer System credits, ECTS), which focuses on media literacy education for older people, is being developed and integrated into a Finnish teacher education program. The program trains teachers to work in the fields of formal and informal adult education in settings such as vocational education, higher education, and liberal adult education. By completing the 60 ECTS program, teachers-in-training gain the official teacher qualification based on Finnish legislation. The entire teacher education program, including the individual courses, are organized in accordance with a blended learning pedagogical design;

therefore, the new course follows the same approach. Blended learning is herein defined as a pedagogical design that combines phases of face-to-face and online activities (Boelens et al., 2017; Graham, 2006).

In the course of this study, the teachers-in-training participated in co-designing the abovementioned course by providing their conceptions about media literacy education for older people. The data were collected through written assignments before the participants enrolled on the new course. Their pre-course conceptual knowledge informed the course design, the aim of which was to promote students' skills and knowledge of the media literacy education of older people (e.g., Hämäläinen et al., 2017; Rasi & Vuojärvi, 2018). The study seeks answers to the following research questions: (1) How do teachers-in-training define older people and their societal roles? (2) What kinds of content and pedagogical methods do teachers-in-training perceive to be suitable in the media literacy education of older people? (3) What kinds of learning goals do teachers-in-training set for themselves?

RESEARCH DESIGN

The overall design of the new blended learning course was carried out as a DBR process (Design-Based Research Collective, 2003; Mingfong et al., 2010; Wang & Hannafin, 2005) consisting of three phases (Figure 1): (1) designing the content and pedagogy for the new blended learning course; (2) implementing the pilot version of the course in teacher education settings and collecting data; and (3) analyzing the data and refining the course design based on the results. The results presented in this article contribute to the first phase (i.e., the course design). The theme of the study presented in this article is **bolded** in Figure 1.

Thus, the course design was informed by three empirical studies carried out during the design phase of the DBR process. Through such in-depth engagement with research-based development, it is possible to avoid researcher-led designs, foster practitioners' input for the course design, and enhance its contextual sensitivity (Leeman & Wardekker, 2011; Mingfong et al., 2010). First, a systematic literature review was conducted to review the existing empirical research on practical media literacy interventions and advance the understanding of how to foster media literacy among older people (Rasi et al., 2021). In particular, the focus of the literature review was on the content, pedagogies, outcomes, and conclusions reported in empirical studies on practical media literacy interventions.

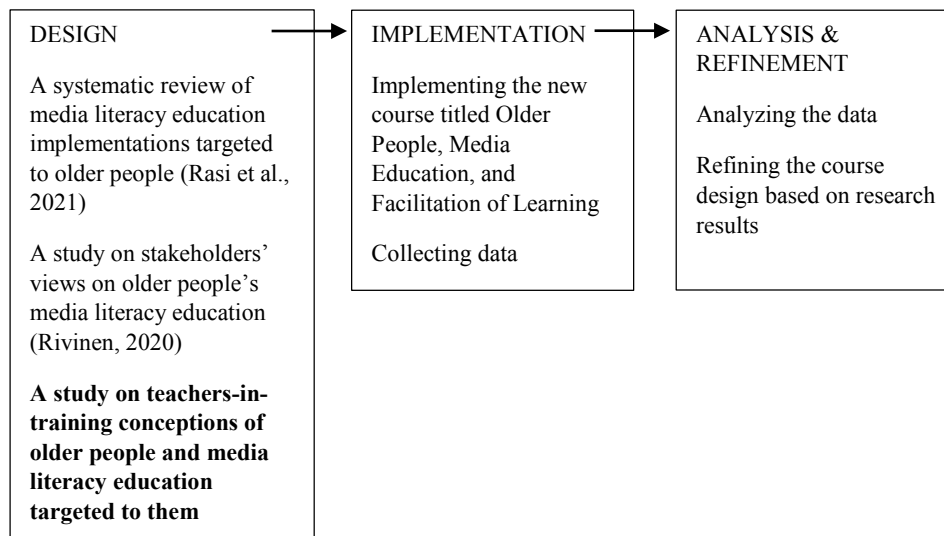


Figure 1. *The Design-Based Research process in this study*

Second, stakeholders' views on media literacy in general, media literacy education, and, specifically, the media literacy education needs of older people were investigated through a study conducted through four participatory creative workshops (Rivinen, 2020). The stakeholders included older people aged 65 and over and the experts working with them. The workshops were organized and conducted by the fourth author of this article.

The findings of the literature review indicate that empirical research has focused primarily on training older people to use digital devices, media, and applications and that traditional teacher-led or teacher-centered pedagogy is commonly applied in media literacy education targeting older people. Only a few studies reported focusing on training older people to produce media content, or analyze it critically, or on implementing media literacy education through pedagogies based on creative production (Rasi et al., 2021). The results from the stakeholder workshops reveal, however, that there is a need for training in all dimensions of media literacy: in the ability to use digital devices and media for information retrieval, to critically evaluate information, and to produce media content (Rivinen, 2020). Both of these studies highlighted the importance of collaborative learning approaches, such as peer-to-peer learning and intergenerational learning, and the need for individualized guidance and genuine need-based training. In order to complete the design phase of the new course and engage students in the design of their own learning process, it is also considered critical to find out, prior to the course, what

kinds of existing knowledge, conceptions, and learning goals teachers-in-training have with respect to the media literacy education of older people. This is the focus of the study presented here. Considering this aspect enables designing the course in such a way that the pedagogical design is aligned with the aim of constructing education students' knowledge and skills (Biggs, 2003).

The study was conducted in line with the principles of the phenomenographic research approach (Marton, 1981; Marton & Pong, 2005; Svensson, 1997). Phenomenography has its roots in the discipline of education, and its aim is to describe people's conceptions: in this case, teachers'-in-training conceptions of older people and media literacy education targeting the latter. People's conceptions are considered to be based on their knowledge, which is created by thinking about the external reality related to the individual's context (Svensson, 1997). Therefore, conceptions are non-dualistic in nature – they are neither objectively nor subjectively constructed – rather, they reflect a person's thinking and meaning-making at a certain socio-cultural and historical time. Phenomenographic studies aim to produce systematic descriptions that exceed individual perspectives, with a focus on revealing the variation in the conceptions within a certain group.

The study participants were 22 Finnish adult education teachers-in-training participating in the previously mentioned teacher education program and course. The details of the participating teachers-in-training are summarized in Table 1.

Table 1. *Participants' background information*

The participants' gender	17 females, 5 males
The participants' average age	33 years (the youngest 23 years, the oldest 55 years)
The participants' disciplines	English; Administrative Sciences; Education; Social Work; Adult Education; Theology; Sami Culture; Political Sciences; Leadership; Media Education; Audiovisual Media Culture; Arts & Design; Math

Seven of the students had completed their master's degree in a Finnish university, and 15 were master's degree students in the four faculties of the University of Lapland. Altogether, the students represented 13 disciplines. Although the research process did not include the intentional selection of participants to maximize their conceptual variation (Marton & Booth, 1997), and that the students were studying in the same teacher education program, the group of participating students varied in their demographic backgrounds, their existing work experience, and their field and stage of study (see also Sin, 2010).

To inform the course design, the students' conceptions were considered by means of a written assignment. This was the first activity of the course, conducted in October 2019, before face-to-face meetings or the design and delivery of the course materials. The students were asked to write one to two pages of text describing their conceptions of who could be defined as older people, what kinds of roles they saw older people having in society, and what they thought older people's media literacy education meant. They were also asked to set their learning goals for the course. With the students' consent, their assignments were used as the research data. To help the students complete the assignment and obtain information about their conceptions, they were provided with a set of neutral questions as "conversation openers" (Marton & Pong, 2005, p. 337) through which they could approach the topic, such as the following:

- What kind of experience do you have of tutoring or teaching older people?
- In what ways have you previously studied older people?
- Who can be considered to be "older"? What kinds of roles do older people have in society?
- What kinds of content and pedagogical approaches should be included in media literacy education for older people?
- Who should be responsible for providing older people with media literacy education?

- What would you like to learn during this course?

Collecting data through a written assignment is considered to demonstrate an explorative orientation toward data collection, which is important in phenomenographic research (Svensson, 1997). In practice, an "explorative orientation" means that even though the data collection focused on certain topics or phenomena, the students were free to delimit the content of their text and express their conceptions on the topic in their assignments based on their own thinking and meaning-making.

The data collected through the preliminary assignments contained 9,213 words. The first author conducted the initial phenomenographic analysis (Marton & Pong, 2005; Svensson, 1997) in line with the first and second research questions, and the second author focused on the third research question. The data were first read multiple times. Next, in order to determine variation in the students' conceptions, their definitions of older people, and the latter's societal roles, the content and pedagogies they considered useful in media literacy education for older people and their learning aims were interpreted from the data and coded into nodes. Finally, clustered categories of the students' ideas were identified through sorting and re-sorting the individual nodes. The NVivo qualitative data analysis software was used to assist in the coding and categorization process.

To enhance the quality and reliability of the study, the initial codings were validated through a collaborative analysis workshop in which all four authors participated (Sin, 2010). During the workshop, the first and second authors presented and explained their interpretations and analysis processes and the initial codes and categories. The other two authors involved challenged the initial analysis and interpretations, asking for justifications and evidence in the data. During the workshop, the codings and categories were discussed and verified, and additional codings were developed to complete the analysis. The phenomenographic analysis process resulted in the

identification of categories delineating the variation in the students' conceptions of older people and their media literacy education.

RESULTS

This section provides the categories resulting from the phenomenographic analysis and answers the three research questions. The presentation of the results is supported and clarified by including carefully selected quotations from the data (Sin, 2010). The students' identities were anonymized with the use of numbers.

Teachers'-in-training conceptions of the definition of older people

In their assignments, the students reflected on their past experiences and studies with regard to themes related to older people. One-third of them reported having had no previous studies related to older people, and the remainder considered that they only had minimal knowledge of the matter. Older people's perspectives have usually been included in subjects or themes other than education, such as communication, public service, developmental psychology, and political studies.

My studies of social politics and social work have included courses in elderly care and the history of politics concerning older people. (Student 5)

Previously, I have studied themes of the teaching, education, and tutoring of adults, but older people's perspectives have not been included. (Student 3)

The students described having limited to no experience of guiding older people, but their assignments revealed that quite a few of them had, in fact, helped some older person with daily routines or errands, such as using digital devices or services. It seems that students are not fully aware of their experience and existing knowledge gained through their everyday interaction and family relations. Furthermore, it seems that education students do not perceive the tutoring or teaching experience gained in non-formal learning contexts as relevant with regard to the aims of their education studies.

I have no previous experience of tutoring or teaching older people either. The closest to this is guiding my own grandmother in computer matters. (Student 4)

The first research question focused on the students' conceptions of the definition of older people and their societal roles. Generally, according to the students' assignments, this task was not perceived as easy or straightforward. To answer the research question, the students' definitions were first coded into 16 thematic nodes. Second, these nodes were clustered into six categories that described the students' conceptions of older people. The first category seemed to yield the general idea of individuals' productive participation in society as employees (Pavlova & Silbereisen, 2016), while older people were considered to be outside working life.

I think older people are retired, but not all retirees' situations are similar, as there are different kinds of phases of being retired. (Student 6)

The second category of definitions was based on individuals' chronological age. The age range in these definitions varied from 55 to 75 years and over – 10 years below and 10 or more years above the age commonly used in the research literature (see, e.g., Anderson & Perrin, 2017; Ofcom, 2019; 2020; Peace et al., 2007).

I think old age starts when you are 70, and therefore, I connect the concept of older people to this age. (Student 9)

In the third category, the definition was based on the conception that older people have certain types of social and interactional relationships in their lives, such as being a grandparent. This reflects the education students' understanding of the various life roles that individuals have across the lifespan (Elder & Johnson, 2003) and the life stages that they associated with these roles (Settersten & Hagerstad, 1996).

Older people may have children and grandchildren. (Student 10)

The fourth category was based on the students' perceptions of older people as being used to certain habits and ways of doing things. In society, people are considered attached to specific socio-cultural and historical contexts, which influence them and how they behave (Elder & Johnson, 2003). Because they have grown up and lived during different times than younger people, older individuals are considered "different" by the younger generations (Jones, 2012).

I see older people as those who are accustomed to using devices and habits of their own era due to their age. (Student 2)

The fifth category included definitions based on a subjective perspective: older people are those who feel that they belong to the group of older people. This kind of subjective perception of age is constructed of multiple dimensions and indicates the age group into which a person categorizes themselves (Barret, 2005; Montepare & Lachman, 1989). People who might be categorized as “older” based on their chronological age might not perceive themselves as old (Jones, 2012).

One can be “older” at any age, and a person defines him or herself as being older. My own grandpa is 83, and he sees himself as young and healthy. (Student 14)

The sixth category describing students’ conceptions of the definition of older people was societal in nature. Being old was perceived as a societally produced definition, one that older people themselves also participated in producing. The concept of “older people” was defined through social interaction between people in and through their socio-cultural context in order to assign meanings to the phenomena around them, including their age – chronological or otherwise (Holstein & Gubrium, 2007). Life is seen as structured by social meanings of age, social timetables, and generalized age brackets, such as adulthood or old age (Elder & Johnson, 2003).

Additionally, societal and cultural factors define older people’s actions and choices. Therefore, aging can also be perceived as socially produced, not only as an individual characteristic. Societal structures, services, and legislation influence, for example, older people’s health and well-being, and through these, their everyday lives. The influence is not, however, one-way only, as older people themselves are also changing their environment and society. (Student 16)

Teachers’-in-training conceptions of older people’s societal roles. Although the students conceptualized the group of older people in terms of certain life roles, almost half ($n = 9$) of them did not mention or were unable to define a specific societal role for older people, although the latter could be regarded, for example, as citizens, students, caretakers, workers, spouses, parents, retirees, or grandparents (Peace et al., 2007; Reed, 2013). Other considerations were coded into eight thematic nodes and then clustered into three categories. The first category considered older people, in general, as active and productive members of society. The students saw them as playing a role in their local communities, working, learning, and generally transferring culture and

knowledge to younger generations. This arguably reflects modern policies that promote active and productive aging and aim to facilitate this through developing appropriate work, health care, and educational services and environments (Pavlova & Silbereisen, 2016). Older people are perceived as having a high productive potential and are encouraged to engage in lifelong learning and voluntary work and to postpone retirement where possible.

Some older people – and I see them particularly as 70 years or older – still have an active role in the society, for example, as part- or full-time workers or substitutes in their own professional fields. (Student 22)

The second category defined older people as either societally passive or dependent on others; their role was to ask for help and support. Negative meanings were attached to age, reflecting older people as weak or constrained (Jones, 2012; Kimuna et al., 2005; Phoenix & Sparkes, 2006).

In Finnish culture, older people can be considered callously, such as being thought of as a burden or an extra cost or of living a lonely life in facilities and receiving only minor care and attention. (Student 18)

The third category included definitions according to which older people’s societal role was defined through their relationship with younger family members. People’s lives were seen as interconnected with others and linked across generations. A diverse multitude of relationships have an effect on life over the course of time in places and social institutions (Bengtson et al., 2012).

They may support their children’s families by taking care of their grandchildren. (Student 13)

Content and pedagogies considered useful in media literacy education for older people

The second research question focused on students’ perceptions of media literacy education for older people, i.e., the kinds of content that should be included and the pedagogies that the education students saw as most useful. In their assignments, they presented 23 nodes of content that they saw as useful to the media literacy education of older people (Table 2). These nodes were clustered into seven content categories.

Table 2. *Suggested content in media literacy education for older people*

Nodes	Clustered nodes	Number of references in data
Content based on participants' own interests (10) Running everyday errands (4) Using electronic services (4)	Content tailored according to participants' own interests and needs	18
Criticalness toward sources and commercials (7) Media literacy (5) Information-searching skills (3)	Skills of searching and critically analyzing information	15
Using digital devices (2) Using software (1) Using operating systems (1) ICT skills needed at work (1) ICT skills needed in studying (1) Calling with smartphone (1) Sending text messages (1) Using a calculator (1) Installing TV channels (1) Using teletext (1)	Skills of using devices and software	11
Understanding social media (5) Social interaction and community (4) Good manners (1)	Skills in using media in social interaction	10
Taking photographs (1) Looking at photographs (1) Creative skills (1)	Creative production skills	3
Safety skills (2)	Safety skills	2

The first category included content that was not identified according to a specific skill set but, rather, tailored according to older people's own interests and everyday personal needs as well as to their background and experience of using media (Patrício & Osório, 2016; Tambaum, 2017; Vroman et al., 2015). From this perspective, the older participants were considered to play an active role in defining what the media literacy education provided to them should focus on and what the goals of learning should be (Lee & Kim, 2018).

I think it is important to know what their existing knowledge, skills, and experiences of media literacy education are. It would also be good to know their existing habits of using technology/media. For example, do they use a computer or other smart devices in their everyday lives and at home? In teaching, what they want to learn should be considered. (Student 12)

The second and third categories could be seen as reflecting the *understanding* and *use* dimensions of the three-dimensional media literacy conceptualization, respectively (Aufderheide, 1993). The second category included content related to the skills needed for

accessing and assessing information. The students perceived that older people needed to learn how to search for information from various sources and to critically assess information and commercials. The students did not, however, specify the kinds of information that they saw as particularly important to older people, such as information related to health, which has been highlighted in recent studies (e.g., Lee & Kim, 2018; Xie, 2011).

[...] criticalness towards information sources and commercials. To learn to consider what you can trust on the Internet and whether everything is true there. [...] I would also teach how to search for information. I think that it would offer a lot for older people if they knew how to surf the wild waves of the web. (Student 8)

The media literacy education targeted at older people should include, first of all, learning critical media literacy skills. We have this generation in Finland who are used to having information from Helsingin Sanomat [the largest newspaper in Finland] and YLE [a Finnish public service media company]. Commercials presented as news, fake media, and others may alike confuse an elderly individual surfing the net. (Student 11)

The third category included skills related to a variety of devices or software that the students suggested in their assignments. In the academic literature, the *use* dimension has most often been targeted in previous media literacy interventions (Rasi et al., 2021).

Basic skills should be, for example, calling by phone, sending an SMS, installing TV channels, or using teletext. (Student 14)

The fourth category of suggested content focused on the skills needed in interaction through social media. Learning how to communicate with friends and family members and widening the social network through various kinds of social media applications has been considered important both generally (Castro Rojas et al., 2018; Chen & Schulz, 2016; Vaportzis et al., 2017) and by older people themselves (Rivinen, 2020).

Older people's media literacy education should particularly include content related to social media. [...] With guidance and tutoring, social media can offer ways to express oneself visually or textually and keep in touch with relatives, friends, or, for example, acquaintances from childhood. (Student 20)

The fifth category included content related to creative production skills, while the sixth included content related to safety skills. Based on the frequency with which the students wrote about these skills in their assignments, creative skills and safety skills appeared to

have been considered the least useful in the media literacy education of older people. In the analysis, however, they were considered meaningful and important and were, therefore, recorded as individual categories instead of being merged into other categories (Marton & Pong, 2005; Sin, 2010). Safety skills are needed to ensure personal security and for general well-being in a digitalized and mediatized society (OECD, 2019). Despite the acknowledged benefits of creative media production for older people (Manchester & Facer, 2015), it is rarely the focus of media literacy interventions targeting this age group (Rasi et al., 2021).

[I suggest including] safety skills, particularly learning whom to give your personal information and what to agree to. (Student 8)

The pedagogies that the students perceived as the most useful to media literacy education for older people are presented in Table 3. Eighteen individual nodes were coded into four clustered categories. Two students did not suggest a pedagogical approach, as they reported in their assignments that they found it difficult to say how to choose the right pedagogical method.

Based on the assignments, the students seemed to view learner-centered pedagogies as the most useful in media literacy education for older people.

Table 3. *Pedagogies considered useful for media literacy education of older people*

Nodes	Clustered nodes	Number of references in data
Individual (12) Tutoring (9) Different pedagogical methods than for younger learners (3) Same pedagogical methods as for other adults (2) Choosing pedagogical methods according to target group (2) Low-threshold methods (2) Subtle guidance (1) Respectful (1)	Learner-centered pedagogy	32
Practice-based (10) Activating (3)	Practice-oriented pedagogy	13
Collaborative learning (3) Peer-to-peer learning (3) Club-based learning (3) Imitation learning (1)	Collaborative pedagogy	10
Teacher-centered methods (3) Choosing pedagogical methods according to content (2) Instructional videos and TV programs (1)	Instructor-led pedagogy	6

These pedagogies were included in the first category, thereby aligned with previously reported studies highlighting the efficacy of learner-centered approaches in media education aimed at older people (Rasi et al., 2021). The choice of pedagogies should be based on the participants' learning skills as well as older people as a group of individuals (Hobbs, 2010), each with unique characteristics and backgrounds that need to be respected (Abad Alcalá, 2019; Chiu et al., 2016; Kim & Merriam, 2010; Vroman et al., 2015; Xie et al., 2012). One-on-one tutoring has been suggested as a useful approach in media education for older people (e.g., Brown & Strommen, 2018), and it was also considered important by the students in this study.

In providing media literacy education, it should be considered what the needs and goals of the target group are that define the content and pedagogies. I think it is particularly important that we do not perceive older people as a homogenous mass that have similar competencies and skills. Individual and cultural factors that are related to older people's use of media should be considered. (Student 16)

The second category included pedagogies based on the participants' active engagement. The difference here with the first category is that the aims and methods of hands-on training were not identified through older people's own needs and preferences; instead, the main idea was that the instructor organizes possibilities for such skills training. A special aspect here is that some of the students suggested integrating this kind of media literacy education into older people's everyday lives. This presents a challenge, for example, for various kinds of providers of digital services, both in the public and private sectors, who operate with older people in their everyday lives (Hodge et al., 2017). Being able to teach and tutor older people to use their digital services thus becomes part of service providers' substantive expertise and may challenge prevailing stereotypes that they may have of their clients.

Pedagogies should enable integrating teaching into everyday life. (Student 10)

The third category of suitable pedagogical methods included those based on certain collaborative activities in which participants collaborate to learn media literacy. Such activities can be organized, for example, through tasks that participants accomplish together or through peer-to-peer tutoring. Such social interaction has been

identified as crucial to older people's learning (Barnard et al., 2013; Sayago et al., 2013).

Older people's versatility can be utilized through various kinds of pedagogies – for example, peer-to-peer teaching – where more skilled participants teach others. (Student 16)

The fourth category concerned pedagogical approaches based on instructors' leading role in orchestrating media literacy interventions targeting older people. This was grounded in the students' perceptions of older people's previous experience of learning, as they considered that instructor-led approaches would be most familiar to the latter. These kinds of interventions are also popular in the research literature on older people's media literacy practices (Blažun et al., 2012; González et al., 2015; Rasi et al., 2021).

If older people are considered as retirees, then behavioristic and one-way pedagogical methods were typical in their childhood and youth; teachers teach, and students listen and try to learn. From this, it could be concluded that older people would be used to classroom-like learning environments and lectures. (Student 11)

Could media literacy education be increased, for example, through instructive TV programs? (Student 17)

Teachers'-in-training learning goals

The third research question concerned the pre-course learning goals that the education students set for themselves. In their assignments, the students described their aims for the course quite extensively: only two students failed to write anything concerning their learning goals or expectations of the course. They expressed the opinion that the course topic was so new to them that it was difficult to set out specific aims for their study.

This older people's media literacy education is a whole new thing for me, and I can't really say what I expect from this course. But I'll follow what's coming with curiosity. (Student 7)

The majority of the education students indicated their learning goals for the course, and the analysis uncovered 16 individual nodes of learning objectives. These were clustered into four content categories: pedagogical methods and principles, general knowledge about older people and their learning, practical tools for teaching, and professional development (Table 4).

Table 4. *Education students' learning goals for the course*

Nodes	Clustered nodes	Number of references in data
Pedagogical methods for older people (10) Older people's media education (2) How to scaffold older people's media education (1) Methods for media education (1)	Pedagogical methods and principles	14
Get new information in general (5) Older people as learners (5) How to approach older people (1)	General knowledge about older people and their learning	11
ICT-technology teaching (3) Practical tools and methods for teaching (2) How to teach reluctant students (1) How to teach students of different backgrounds (1) How to scaffold older people's self-efficacy (1) Practical tips for media education (1) How to utilize participatory pedagogy (1)	Practical tools for teaching	10
To gain new theoretical knowledge (2) Co-creating new pedagogical models (1)	Professional development	3

The first category contained the students' learning aims of gaining knowledge of pedagogical methods that are especially suitable for teaching and tutoring older people. Based on their texts, this was considered their most important objective for the course.

Personally, I would like to learn during this course exactly what to consider when teaching older people – what teaching methods should be chosen and what to pay attention to. (Student 1)

Learning objectives focusing on media literacy education for older people were also included in the first category.

During the course, I want to deepen my understanding of how I could support the learning of older people, especially from the point of view of media education. (Student 18)

General methods for media education were mentioned as well as the need for knowledge of scaffolding older people's media education.

The nodes concerning general knowledge about older people and their learning were included in the second category. The student teachers reported that they wanted to obtain general information about older people, even though their texts revealed that they had older people as relatives or have had experiences with older people, for instance, through work. This observation supports a previous study finding: students

did not consider their own informal or non-formal experience as valid in the context of teacher education.

Information regarding the ways of learning and the learning process of older people, in general, was also addressed in the education students' papers.

During the Older People, Media Education, and Facilitation of Learning course, I would like to learn, in general, about the learning of older people: what their learning is like. (Student 17)

The third category contained learning goals related to achieving practical tools for teaching. This is in line with previous research. For instance, Beattie's (2000; see also Leivo, 2010) study reveals that classroom teacher students expressed a desire for their education to be "concrete, pragmatic and [to] provide practical tools" for teaching practice. Importantly, Finnish academic teacher education has traditionally been balancing between theory and practice. (Leivo 2010, p. 14.)

From the media education course for older people, I would hope to get [...] practical tools and methods that could potentially be used in future jobs. (Student 11)

The third category also included specific expectations regarding ICT teaching. This section contained the participants' hopes for methods and ways of scaffolding media literacy education for older people and their self-efficacy. It also addressed utilizing participatory pedagogy and ways to consider the needs

of learners of different backgrounds or those who are less motivated.

During the course, I would like to learn how to teach older people from very different starting points. Some may have strong skills in information technology, but others may not have them at all. (Student 6)

The last category consisted of the education students' learning goals, which were read as aims concerning their professional development.

I myself would like to be involved in creating a functioning pedagogical model. I like the development of different models related to teaching. (Student 2)

The course in media literacy education for older people was implemented as the last of the students' didactic studies, so some students were at the end of their studies and had been learning both the theory and practice of teaching. In addition, the students came from different backgrounds: some of them had been working as teachers, while some had no teaching experience. Therefore, in the students' texts, different learning goals also surfaced: from gaining practical tools for teaching to aims that can be interpreted as reaching beyond teaching practice. In this regard, Aarto-Pesonen and Tynjälä (2017) found that adult student teachers' professional growth occurs both horizontally and vertically. Professional development or growth advances horizontally from egocentricity to researching professionalism to expertise within the wider society; at the same time, teachers' perspectives of reflecting and learning continue to widen. In the vertical dimension, professional development can be seen as "transforming self-image, expanding self-expression and widening agency" (p. 1).

DISCUSSION

In their assignments, the students wrote extensively about the difficulty involved in defining older people. As such, they demonstrated an understanding of the complexities and problems related to defining "older people" and "old age" (Begum, 2019; Gilleard & Higgs, 2005). Furthermore, compared to research highlighting the ever-flowing change throughout an individual's life course (Elder & Johnson, 2001) and the multitude of roles that people over 65 can have in society – for example, that of a citizen, student, leader, partner, parent, or caretaker (Peace et al., 2007; Reed, 2013) – the students assigned a fairly limited number of societal

roles to older people. They seemed to perceive the conceptualization of older people as complicated. According to Jones (2012), this perceived complexity may stem from various reasons. For example, age and aging are not valued very highly in modern society. Our era is embedded with visuality, and the representations of older people in media are both scarce and narrow in scope (Rasi, 2020). Instead, the current era emphasizes youth and health, which are so prevalent in visual imagery that education students in their 30s may find it difficult to imagine anything else. Old age may be deemed as something "different," and the idea of getting old may imply letting go of something considered as the "true self."

The students wrote about the need for media literacy education to be sensitive to older people's *interests* and *needs*, which is in line with the existing research literature. For example, a recent review of the research literature on older people's media literacy interventions emphasized the application of a needs-based approach in designing and implementing media literacy education to older people (Rasi et al., 2021). Some of the experienced needs reported in the research literature include being able to use digital devices, technologies, and media for news, banking, learning, and health (Abad Alcalá, 2019) as well as for social interaction and searching for information (Vroman et al., 2015). The suggested content in the students' assignments was multidimensional, as it included all three aspects of media literacy: using, understanding, and producing media (Aufderheide, 1993); however, the first two seemed to be emphasized in the education students' conceptions. The students identified older people as needing to improve their skills in using digital devices and interacting through social media on the level of their personal and family lives, not as active members of communities or on all levels of society, which has been highlighted in earlier research literature (Hobbs, 2010). The students' conceptions of media education for older people can be considered as limited, such that they did not consider older people's media literacy skills, for example, from the perspectives of democracy, participation, active citizenship, choice, or the knowledge economy (Livingstone et al., 2005).

From the perspective of adult education and teacher training, it is important to promote teachers' -in-training ability and understanding of how, through their own role as teachers, they can contribute to older people's media literacy (i.e., all three dimensions) and facilitate older people in managing and guiding their own learning. This can potentially lead to strengthening older people's

critical consciousness, which Freire (2005) defines as the ability to intervene in a reality in order to change it. Gaining the power to intervene and change everyday life can be realized, for example, by identifying and making explicit those societal and educational structures that impact older peoples' lives and their possibilities and abilities to use, understand, and create media. This entails engaging older people in dialogue and praxis concerning their everyday lives (Bryanton, 2018; Findsen, 2007). The challenge, however, is that, although there are a variety of studies on how people in general learn knowledge and skills and how teaching should be designed and conducted, there is a lack of a theory of instructional design for older people in all their learning contexts (Czaja & Sharit, 2013; Rasi et al., 2021). Developing teacher education through research has the potential to operate as one of the change agents in achieving this instructional design: fulfilling the current need for research-based contents and pedagogies focused on older peoples' media literacy education in the teacher-training field and improving future adult educators' skills and knowledge of working with older people in media education.

Pedagogically, the students seemed to consider learner-centeredness as the most useful starting point to conduct media literacy education for older people. Individual or peer-to-peer tutoring, hands-on training activities, and a strong instructor presence were considered useful. Although creativity came up in the students' conceptions of useful content for older people's media literacy, pedagogical approaches based on creative production and playfulness that are general in teaching younger learners – for example, engaging in a digital video production process when learning languages (Cannon et al., 2018) – were absent from their assignments.

Implications for course design

First, although the students understood the complexity of the category of “older people,” they seemed to have a somewhat limited conception of older people's societal roles. Therefore, there is a need to consider aging and older people from multiple perspectives in the course implementation in order to provide students with opportunities to ponder these issues from various perspectives and on different levels, such as the personal and societal. Second, the students seemed to have some experience of interacting with older people, but they did not seem to acknowledge this experience as relevant to their education studies.

Learning, however, is herein considered as intertwined with students' socio-cultural context, and individuals' lives and learning histories as a whole are seen as vital reflection points for learning (Säljö, 2010). All kinds of experience that pertain to operating with older people have been considered important in facilitating students' further success in working life (Conçalves et al., 2011; De Biasio et al., 2016; Kimuna et al., 2005). Therefore, acknowledging and reflecting on students' existing knowledge and experience of interacting with and tutoring older people are vital to the future implementation of the course.

Third, although the students demonstrated an understanding of the key pedagogical approaches suitable for older people, their perspectives on pedagogical possibilities could be widened; for example, creativity came up in the content of media literacy education – not as a pedagogical approach. Therefore, to fill this knowledge gap, special attention needs to be placed on considering the affordances that pedagogical approaches based on creative production could offer to the media literacy of older people and the media education that aims to facilitate it. The existing research reports promising results of such approaches used, for example, for documenting life histories in textual (Gamliel, 2016), visual (Del Prete et al., 2011) or video format (Manchester & Facer, 2015).

Finally, it was suggested that older people's first-hand perspectives and voices could be significantly integrated into the course design. It would be beneficial, for example, to invite older people to act as discussants on the course. This would provide students with vital stakeholder perspectives of media education for older people (see also Rivinen, 2020) as well as help in including these perspectives in the development of their practical pedagogical design assignments. This would be another way to provide students with experiences of interacting with older people, which could promote positive attitudes toward the latter (Van Dussen & Weaver, 2009).

Limitations

The data for this study were collected from Finnish students enrolled in one teacher education program in Finland; therefore, the transferability of the findings to other contexts should be considered with caution. The ultimate aim, however, was not to produce transferable findings that would also be usable or applicable outside the specific research context (Sin, 2010); rather, it was to describe education students' conceptions of older

people and their media literacy education, with the aim of using this information in the design of a new course in this area, i.e., to engage students in the design of their own learning process.

The authors' aim was to document fully and explicitly each stage of the research process as well as their division of work during this process. The first two authors of this paper are also the designers and instructors on the course; thus, the practical and theoretical levels of its development are intertwined. This is in line with the core idea of DBR (Wang & Hannafin, 2005), but it can also be considered critically as possibly causing researcher bias (Anderson & Shattuck, 2010). Here, this critique was addressed through researcher collaboration and engaging students in the design of the course prior to its implementation by focusing on their lived experiences in the phenomenographic study presented in this paper.

Data collection in studies that apply a phenomenographic research approach are typically carried out through interviews (Marton & Pong, 2005), but in this case, written assignments were used. This kind of data collection method, however, excludes the possibility of joint explorations of the concept of older people and their media literacy education (Sin, 2010) – the text produced by the students is as it is. However, using written assignments as data minimizes the influence of the researcher, who is not involved in producing the data at the moment it is produced, either through interpretations during interactions or physical presence.

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