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The Self-directed Learning of Older Adults in Generativity-based Contexts

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Declaration of Originality

I herewith declare that the material contained in my dissertation entitled *The Self-directed Learning of Older Adults in Generativity-based Contexts* is original work performed by me under the guidance and advice of my faculty supervisor.

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ANNOTATION

In the recent decades, the profile of contemporary generations of older people has been changing towards more active participation in economic and social processes at the level of the family, community or society at large, which places an increased emphasis on learning to be continued into later life. In the context of this trend, there arises a need for education research to explore the phenomena of older adults maintaining or gaining the competences needed for participation. In the fast-changing learning environments, older adults face the challenge of taking responsibility for their personal development and learning for their life needs in a self-directed mode. The scholarship on later life has shown that engagement in generativity provides contexts for older adults' learning for personal growth, self-sufficiency, and development of competences to benefit their social environments. However, there is little knowledge of how generativity-related contexts impact self-directed learning of older adults. In self-directed learning theory and research, the concept of self-directed learning has not been considered in relation to the concept of generativity as context to later life learning. It is necessary to understand how older adults perceive and implement their self-directed learning in the environments provided by generativity-based activity.

The aim of the study is to theorize older adults' self-directed learning through their engagement in generativity: to identify the meaning of learning, describe the process and its elements, and explain the factors which affect implementation of learning. The grounded theory methodology is applied to address the research questions: How do older adults understand their self-directed learning in the context of generativity? How do older adults implement their self-directed learning in generative activity? What factors affect self-directed learning of older adults in generativity-based contexts? The choice of methods and processes of the grounded theory study is guided by their congruence with the interpretive research paradigm and the social constructivist paradigm as a theoretical approach. The construction of the grounded theory is based on an interdisciplinary approach to later-life learning combining relevant theoretical perspectives within the disciplines of social gerontology, educational gerontology and andragogy, which allowed obtaining insights both into the socio-psychological context of later life learning, and the ageing-related educational paradigm. The semi-structured face-to-face interview is used as the method of data collection, and the data analysis is conducted consistent with the evolved grounded theory approach.

Based on the findings of empirical research, the study provides a grounded theory, which presents an interactive model of self-directed learning showing the interrelation between generativity and later life learning by revealing the characteristic elements of the learning process and the contextual influences. The key findings of the study suggest the following: (1) older adults position their later life self-development in generativity; (2) through engagement in informed generativity, older adults construct authentic learning in later life changes-affected circumstances; (3) in their informed generativity-based learning, older adults reconcile past and present by integrating pre-retirement learning experience with post-retirement learning needs; (4) self-direction in learning in generativity-based context is built on sustaining self-efficacy in aging-restricted circumstances. The novelty of the study lies in the synergy of the concepts of generativity and self-directed learning displayed in the grounded theory of self-directed later life learning in informed generativity.

ANOTACE

V posledních desetiletích se profil současných generací seniorů mění směrem k aktivnější účasti na ekonomických a sociálních procesech na úrovni rodiny, komunity nebo společnosti jako celku, což klade zvýšený důraz na to, aby učení mohlo pokračovat pozdních letech života. V souvislosti s tímto trendem vyvstává potřeba pedagogického výzkumu, který by zkoumal udržování nebo získávání kompetencí potřebných pro aktivní účast seniorů na společenském životě. V rychle se měnících vzdělávacích prostředích stojí senioři před úkolem převzít odpovědnost za svůj osobní rozvoj a učit se podle svých životních potřeb v režimu, který si řídí sami. Studium v pozdějších letech života ukázalo, že přístup generativity poskytuje kontext pro učení starších dospělých pro osobní růst, soběstačnost a rozvoj kompetencí ve prospěch jejich sociálního prostředí. Existuje však jen málo znalostí o tom, jak kontexty související s generativitou ovlivňují sebeřízené učení seniorů. V teorii a výzkumu sebeřízeného učení není koncept sebeřízeného učení vztahován ke konceptu generativity jako kontextu pozdějšího učení. Je nutné porozumět, jak senioři vnímají a realizují své sebeřízené učení v prostředích spjatých s aktivitou vycházející z generativity.

Cílem studie je teoreticky vymezit sebeřízené učení seniorů prostřednictvím generativity: identifikovat význam učení, popsat proces a jeho prvky a vysvětlit, co působí na implementaci učení. Metoda zakotvené teorie je použita k odpovědím na výzkumné otázky: Jak senioři rozumějí svému sebeřízené učení v kontextu generativity? Jak starší dospělí realizují své vlastní učení v generativní činnosti? Jaké faktory ovlivňují sebeřízené učení seniorů v kontextech generativity? Volba metod a procesů studia zakotvené teorie je vedena jejich shodou s paradigmatem interpretativního výzkumu a paradigmatem sociálního konstruktivismu jako teoretického přístupu. Konstrukce zakotvené teorie je založena na interdisciplinárním přístupu k učení se v pozdní etapě života kombinující relevantní teoretické perspektivy z oborů sociální gerontologie, pedagogické gerontologie a andragogiky, které umožnily získat vhled jak do sociálně-psychologického kontextu učení se v pozdním životě, tak do paradigmatu vzdělávání v pozdním věku, při stárnutí. Jako metoda sběru dat je použit polostrukturovaný rozhovor a analýza dat je provedena v souladu s přístupem zakotvené teorie.

Na základě zjištění empirického výzkumu studie poskytuje zakotvenou teorii, která představuje interaktivní model sebeřízeného učení ukazující vzájemný vztah mezi generativitou a učením v pozdních letech života odhalením charakteristických prvků procesu učení a kontextu. Klíčová zjištění studie naznačují následující: (1) senioři umisťují svůj pozdější seberozvoj v generativitě; (2) prostřednictvím zapojení do informované generativity vytvářejí senioři autentické učení v okolnostech ovlivněných změnami v pozdním životě; 3) ve svém informovaném učení založeném na generativitě sladují senioři minulost a přítomnost tak, že integrují zkušenosti před odchodem do důchodu s potřebami učení po odchodu do důchodu; (4) sebeřízené učení v kontextu generativity je postaveno na udržení self-efficacy za okolností omezených věkem, tedy stárnutím. Novost studie spočívá v synergii konceptů generativity a sebeřízeného učení zobrazených zakotvenou teorií sebeřízeného učení v pozdním, seniorském, životě informované generativity.

Table of Contents

ANNOTATION	7
ANOTACE.....	8
LIST OF ABBREVIATIONS.....	11
INTRODUCTION.....	13
1 CONCEPTUALIZATION OF THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS	20
1.1 Learning in older adulthood: literature review and concept analysis.....	20
1.1.1 The concept of older adulthood as a developmental stage.....	21
1.1.2 The multidimensionality of the concept of later life learning.....	25
1.2 Conceptualization of self-directed learning in later life.....	43
1.2.1 The theoretical framework of self-directed learning	43
1.2.2 Understanding the concept of self-directed later life learning	52
1.3 Generativity as a context for later life learning.....	61
1.3.1 Generativity in later life: the inclusivity of the concept	64
1.3.2 The main dimensions of generativity as context for later life learning	71
2 METHODOLOGY OF THE RESEARCH ON THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS	84
2.1 Methodological basis for research	84
2.1.1 The congruence between ontological and epistemological assumptions and research paradigm	84
2.1.2 Philosophical positioning: social constructivism	86
2.1.3 The rationale for research design as an evolved grounded theory study	87
2.1.4 Justification of the choice of research framework.....	91
2.1.5 The researcher methodological awareness and consistency	92
2.2 Researcher position.....	95
2.3 Research sample and data collection.....	96
2.4 Data analysis.....	102
2.5 Construction of theory	110
2.6 Research ethics	112
2.7 Trustworthiness and research limitations.....	113
2.8 The issue of translation	118
3 ANALYSIS OF THE RESEARCH RESULTS OF THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS	121

3.1 Sustained authentic learning in informed generative performance: a grounded theory study of older adults' self-directed learning in generativity-based contexts.....	122
3.2 Analysis of the empirical research findings: the grounding of the categories.....	133
3.3 Discussion	200
CONCLUSIONS	212
REFERENCES	217
APPENDICES.....	239
Appendix 1: Literature review of later life learning in informal context	240
Appendix 2: Literature review of self-directed later life learning in informal context	249
Appendix 3: Literature review of generativity and learning	253
Appendix 4: Participants.....	259
Appendix 5: Example of line-by-line coding	260
Appendix 6: Coding example.....	261
Appendix 7: Example of Conditional relationship guide	265
Appendix 8: Example of Memoing.....	266
Appendix 9: List of published texts and conference speeches by Salomėja Šatienė	268

LIST OF ABBREVIATIONS

GT	grounded theory
PRO-SDLS	Personal Responsibility Orientation to Self-direction in Learning Scale
SDL	self-directed learning
SOC	selection, optimization and compensation

INTRODUCTION

The relevance of the research. The relevance of the research on self-directed learning of older adults is embedded in the sociocultural contexts of later life learning affected by national and global processes, and the demands of an aging society for education and learning. In the past decades, self-directed learning has been given considerable attention in adult education research due to the recognition of the increased importance of the learner ability to learn independently in the fast-changing learning environments when older adults become challenged to take the responsibility for their personal development and learning for their life needs (Jarvis, 2001). Educational theorists recognize that most of older adult learning is through non-formal and informal means (Merriam & Bierema, 2014), which indicates the topicality of studying self-directed learning in informal learning environments (Duguid et al., 2013). The prevalence of self-directed learning mode in later life is associated with older persons' self-sufficiency, their needs and interests (Lamdin, 1997). For older adults, self-directed learning may become a major source of self-fulfilment and a major way to develop new knowledge and skills (Sears, 1989).

It has been generally recognized that the profile of older adults has changed in the last decades – the contemporary generations of older people are well-educated and active, in contrast to the stereotypes associating old age with ill-health, passivity and dependency (Buffel et al., 2012; Villar, 2012). This trend has been reflected in gerontological theory by emergence of a new approach associated with generativity in older age as a perspective to view contemporary generations of older adults (Bradley, 2003; Kruse & Schmitt, 2012; Rubinstein et al., 2015; Serrat et al., 2017). Generativity through productivity in older age represents active engagement with life as an essential component of successful ageing (Rowe & Kahn, 1997), or productive aging (Ardelt, 2000; Dench & Regan, 2000; Boulton-Lewis et al., 2006). Active participation of the contemporary generations of older adults in economic and social processes at the level of the family, community or society at large places an increased emphasis on learning to be continued into later life (Duguid et al., 2013). In the generativity perspective, the aim of later life learning is to develop competences enabling older people to contribute to their social contexts, develop positive relationships and engage in reciprocal participation (Havighurst, 1972). Generativity provides contexts for older adults' personal growth and self-sufficiency (Narushima, 2004), opportunities for older people to use knowledge, skills and experience to benefit their social environments (Ranzijn, 2002). Learning stimulates older learners to search and explore their growth and development (Moody, 1986; Tam, 2013), world development and social progress (Formosa, 2012; Tam, 2013), mental health and improvement of intellectual abilities (Rowe & Kahn, 1997; Boulton-Lewis et al., 2006; Tam, 2013). The context of generativity is associated with learning in later life motivated by personal development and self-fulfilment, acquisition of knowledge, and improvement of one's economic status through advancement and skill development (*"The Report on the Applied Research of Adult Education"*, 2011). Active and productive functioning requires certain competences, which are based on acquisition of new knowledge and development of skills relevant to engagement in the new type of activity, motivated by future-oriented and long-term values linked to the development and improvement of the social context (Villar, 2012; Duguid et al., 2013). With the increasing trend of contemporary generations of older adults continuing active participation after retirement, generativity proves to be a context for learning, and a useful tool to improve older adults' generative performance.

Generativity may be considered a conceptual framework including a variety of social contexts (Villar & Serrat, 2014) relevant for the study of self-directed learning. The scholarship developed in the past two decades, has pointed out the need to extend educational paradigms to older adult learning by taking into consideration different social and cultural contexts in which later life learning takes place (Jarvis, 2001; Russel, 2011; Hiemstra, Brockett, 2012; Findsen, 2016), the learners' backgrounds and learning situations (Roberson & Merriam, 2005), which reflect the complexity of the phenomenon affected by societal changes. As pointed out by Jarvis (2004), learning is an existential phenomenon, processes that occur in most people throughout most of their lives as a response to their learning needs, fulfilment of their potential and discovering a place in the wider society. In the perspective of the trends of self-development and the growing importance of generative pursuits in later life, generativity increasingly becomes recognized as an environment for learning. Advancement of an understanding of self-directed learning in generativity-related contexts can enhance later life (gerontological) research and practice, and educational gerontology research in particular.

Overview of the studies on the research topic. Since the introduction of the concept by Tough in 1967, self-directed learning has been developed into an influential educational theory of adult learning informed by foundational theoretical and empirical studies. To date, there have been a number of models of self-direction in learning developed ranging from the initial linear approach (Tough, 1971, 1979; Knowles, 1975) to interactive multi-dimensional models (Spear & Mocker, 1984; Garrison, 1997; Hiemstra & Brockett, 2012). In the scholarship of the past two decades, there has been more attention given to self-direction of adults in specific contexts following “21st century vision of self-directed learning”, associated with Hiemstra and Brockett’s (2012) *Person Process Context* (PPC) model. This development was associated with scholarship taking on a more holistic focus on further advancement of understanding self-directed learning as a dynamic interplay of the three elements, which stimulated researchers to analyze self-directed learning in diverse contexts and social groups. The relevance of research on older adults as a particular group of learners may be linked to Knowles’ (1975) finding that with age adults may become more self-directed in learning. Since identification of age as a mediating variable in adults’ self-directed learning projects (Sears, 1989), self-directed learning theory has become a major theoretical perspective to focus on later life learning. Self-directed learning in later life has been analyzed in connection to health (Valente, 2005; Rager, 2006), aging-related adaptive processes (Roberson, 2003), interests (Sears, 1989; Kleiber, 1999). There have been established the links between different aspects and influences: self-directed learning and emotions (Rager, 2009), the role of rural environment (Roberson, 2003), the role of leisure in learning (Roberson, 2005a). The choice of particular domains of research may be associated with Candy’s (1991) argument of the context having a decisive influence on learners’ self-direction, which manifests itself in the areas that learners are familiar with. Researchers have linked self-directed learning in later life to the needs associated with the life stage (Roberson, 2005b; Valente, 2006; Jin et al., 2019), development of personal potential (Scott, 2006), self-enrichment (Roberson, 2004), self-enjoyment and self-fulfillment (Sears, 1989). The characteristics of the learning process identified in scholarship include learner’s sense of control (Lamdin, Fugate, 1997; Withnall, 2017); self-efficacy (Scott, 2006), development of coping strategies (Woodilla & Stork, 2016), consideration of personal values (Rager, 2006), planning (Sears, 1989; Lamdin & Fugate, 1997; Scott, 2006), systematic attention (Roberson, 2004; Roberson & Merriam, 2005). The extent of the influence of

context on the learner autonomy has been the focus of a large body of SDL research (Roberson, 2003; Scott, 2006; Merriam et al., 2007). Researchers studied the influence of the ageing individuals' environment on the learning process and identified the contextual factors of everyday tasks the older adults are confronted with (Lear, 2011; Schmidt-Hertha, 2013), change in the individual's environment (Lamdin & Fugate, 1997; Roberson, Merriam, 2005), health condition (Valente, 2005), new developmental tasks (Kleiber, 1999). Access to resources has been identified as a decisive factor including educational and intellectual resources (Fisher, 1998), social resources (Rager, 2006; Schmidt-Hertha, 2013), and personal resources including time (Sears, 1989; Guglielmino et al., 2005), health (Sears, 1989; Roberson, 2003; Guglielmino et al., 2005) and learning competence (Sears, 1989). Learning competence has been studied in relation to older adults' learning experience accumulated during the lifespan (Sears, 1989; Roberson, 2004; Scott, 2006). There has been a large amount of research showing a connection between self-directed learning and quality of life (Brockett, 1985, 1987; Lamdin & Fugate, 1997; Roberson, 2004; Lear, 2011). However, the above researchers failed to explore generativity environment and its contextual impact on older learner self-direction. The study of older adult learning in generativity suggests a more comprehensive approach going beyond the limits of specific environments, as it integrates the personal, public, social and professional domains. However, in scholarship on older adult learning, there was no previous research which directly explored self-directed learning of older adults in their pursuit of generativity.

In the recent years, there have been a number of studies on different aspects of self-directed learning of adults published in Lithuania including the context of educational paradigm change and the impact of the environment (Jucevičienė, 2007), exploration of the model of self-directed learning (Linkaitytė & Lukšytė, 2003), enhancement of self-directed learning of adults (Kvederaitė et al., 2013). There have been only a few major studies (i.e. doctoral dissertations) on self-directed learning: *Self-directed learning processes of academic staff in contemporary school as a learning organization* (Kvederaitė, 2009); *Immigrants' self-directed learning in community-based organizations on their path to integration into the host society* (Bartkevičienė, 2015); *Personality self-education through participation in healthy lifestyle education in non-governmental organisations* (Vaivada, 2015); *Conscious self-development of adults as transformative learning* (Kolbergytė, 2016); *Application of interactive technologies for fostering students' self-directed learning* (Dubosas, 2017). My search for and analysis of publications on self-directed learning shows that there have not been any studies of older adults' self-directed learning published by Lithuanian researchers. Most of the research on older adults has been focused on psychological and social aspects, and we can only see some educational perspective on later life learning implied: active participation of elderly people in community life in respect to inclusion of elderly people and development of active citizenship (Čepėnaitė, 2008); the factors of successful ageing from the older people's perspective (Jankūnaitė & Naujanienė, 2012); psychological aspects of ageing including cognitive activity, showing that more extensive knowledge allows elderly people to select meaningful information in the environment and prevents older person's ability to learn and retain skills (Mockus & Žukaitė, 2012); a positive impact of social activity on the psychological well-being in older age (Miežytė-Tijūšienė & Bulotaitė, 2012); social and cultural aspects of senior adults participation in voluntary activity (Gedvilienė & Karasevičiūtė, 2013). Some aspects of older adult education in Lithuania have been analyzed from the critical gerontology perspective including educational opportunities for older people, educational activities for older adults' development in social care institutions, empowerment of older people to participate in educational activities (Žemaitaitytė, 2014a, 2014b, 2015), or staying active in the labour market

(Lengviniene, 2016). My search and analysis of the publications available in EBSCO publishing, Taylor and Francis Online, Lithuanian Academic e-Library (eLABa) databases, as well as open access platforms shows that there are very few studies by Lithuanian researchers in the area of educational gerontology, and the results are mostly of descriptive and fragmented nature. This indicates that in Lithuania there is lack of scientific discussion on the issues of later life learning in general and self-directed learning of older adults in particular. Analysis of the dissertation databases of the Research Council of Lithuania (Lietuvos mokslo taryba [The Research Council of Lithuania], 2020) shows that there has not been carried out any in-depth research of learning in later life based on integrated conceptual frameworks of generativity in later life and educational gerontology. Lack of attention to the field of educational gerontology determines considerable uncertainty in the conceptualization of self-directed older adult learning both in terms of educational practice and research. The growing body of studies on older adult learning tend to focus on specific contexts and particular aspects of learning in relation to the benefits for the older person's well-being.

The review of theoretical and empirical research in the field of adult education, and later life learning in particular, allowed to identify the need for research in self-directed learning of older adults. Previous research studies explored self-directed learning in later life in respect to older adults' adaptation to ageing, or facing health issues. However, the role of generativity as a learning context related to developmental tasks of older adulthood was not analyzed. The exploration of contextual aspects of generative activity of older adults in the present study is important due to the fact that in Lithuania there has been limited research on influences of specific learning contexts on learning in later life from the older learner perspective. The lack of research with respect to self-directed learning of certain groups of older adults in their environments makes the study of self-directed older adult learning in generative activity related environments particularly relevant. The issue of generativity in later life has been little analyzed and the literature on generativity in later life is relatively scarce and generativity measurement studies have only recently started to identify elderly people as a subgroup with features characteristic of later life context (Ehlman et al., 2014). Previous research on generativity demonstrated that generativity is linked to personal development in later life (Villar, 2012).

The research issue. The present study was designed to explore learning in later life giving a special consideration to learner self-directedness and the contextual factors influencing the process of learning, and provide theoretical conceptualization of the context for learning, encompassing the factors related to the micro and macro environments. The research phenomenon is linked to pursuit of personal development through self-directed learning in generativity-based contexts in later life. The research focus on manifestation of older adult learning in generative participation is predicated on a view that older adults make use of or create learning opportunities for themselves (Schmidt-Hertha, 2013) in their specific learning contexts. In the present study I will explore older adults' self-directed learning experiences with respect to their perceptions of the opportunities for learning in the environments provided by generativity-based activity. The rationale for focusing on self-directed learning of older adults through engagement in generativity resulted from the identification of a strong theme of generativity in scholarship on later life. In adult learning research, the phenomenon of self-directed learning in older adulthood was generally explored in relation to ageing processes or ageing related circumstances. It has to be pointed out that self-directed learning was mostly analyzed in organized learning situations, and in the context of non-formal adult education in particular,

emphasizing its role in active or successful ageing. However, independent learning at the individual's level, which in many cases is the prevailing type of learning in later life manifested as everyday learning, has been little researched. Analysis of scientific literature demonstrates that there has been little research on the links between self-directed learning and the developmental tasks in later life. There is lack of empirical research into the process of self-directed learning as an older individual's pursuit of self-development through meaningful activity, which occurs in an authentic learning situation. An integrated approach to the development of educational theory of later life learning should be informed by comprehensive integrated knowledge of self-directed learning and aging as a social construct. The multidimensionality of the concept of self-directed later life learning requires some integrative approach which allows analysis of later life learning to be grounded in both psychosocial theories of ageing and the change of educational paradigms from adult education to adult learning. In the context of later life learning, it should provide the answers to the questions related to the concept of later life learning encompassing the meaning and role of learning in later life, the older learner personality and learning skills, and the learning processes in a variety of learning environments. Exploring generativity as context may contribute to richer understanding of how self-directed learning operates in specific contexts. I address self-directed learning here consistent with Hiemstra and Brockett's (2012) theory of interaction of the person, process, and context elements. The present study explores learning in later life as a developmental stage, looking into the older learners' perceptions of age-related factors and association of those factors with their self-directed learning. This synthesized approach will further and deepen the understanding of the self-directed learning as the experiences of individuals modelling and realizing their learning independently. The multidimensionality and inclusivity of the concept is represented by a variety of domains of an older person's activity as context for learning, entailing the interacting effects of age-related factors, and diversity of the learning types, scopes and outcomes.

The research problem. The purpose of this research is to answer the question: How older adults construct their self-directed learning in response to the opportunities provided by their generativity-based environments? The answer to this question may be provided by finding out how older adults describe the process of understanding and realizing their learning needs in generative pursuits. The research questions were answered using Glaser and Strauss (1967), Strauss and Corbin (1998) application of grounded theory. Research questions were aimed at identifying the phenomenon to be studied, and acquiring the knowledge of the subjects, participants, and their socially constructed realities (Strauss & Corbin, 1998). The main objectives of the empirical study are to examine self-directed learning process of older adults as individual and social practice and to explore the learning influences in the context of generativity in later life.

The aim of the dissertation is to develop a grounded theory of self-directed learning of older adults in generativity-based contexts.

The research questions:

1. How do older adults understand their self-directed learning in the context of generativity?
2. How do older adults implement their self-directed learning in generative activity?
3. What factors affect self-directed learning of older adults in generativity-based contexts?

The objectives of the dissertation are as follows:

1. to explore the participants' perceptions of the role of their self-directed later life learning and themselves as self-directed learners;
2. to identify the characteristics of the self-directed learning process of older adults in generativity-based activity: learning competences, strategies and outcomes;
3. to establish the influences of the contextual factors within older adults' generative activity as a self-directed learning environment.

Theoretical perspectives

Analysis of the scholarship in the field points to a need for later life learning to be studied from complex perspectives adopting multidisciplinary approach which incorporates social, cultural, economic, or political contexts. The construction of my grounded theory is based on an interdisciplinary approach to later-life learning combining relevant theoretical perspectives within the disciplines of social gerontology, educational gerontology and andragogy. This approach allows obtaining insights both into the socio-psychological context of later life development, and the ageing-related educational paradigm. The issue of „later life learning” being different from adult learning has been widely debated in academic literature (Peterson, 1976; Battersby, 1987; Glendenning, 1989, 1992; Lamieux & Martinez, 2000; Kern, 2014, 2018). Justification for separation of learning in older adulthood as qualitatively different from learning in other stages of life is embedded in the purposes of learning – asserting that learning is related to making meaning from this stage of life (Fisher & Wolf, 2000), and qualitative differences in learning experiences (Withnall, 2010). However, it still incorporates some andragogical concepts applied to later life learning, in particular, the central role of the learner, and experience as fundamental basis to build up learning, and facilitation of learning through supportive and accepting learning environment (Luppi, 2009).

The theories of social gerontology have been adopted as theoretical perspectives to view self-directed learning in older adulthood as a developmental life-stage. Developmental theories describing stages of growth in human development, and Erikson's (1963, 1980) theory of life stages in particular, became an influential framework for research on ageing almost six decades ago. Based on the psychosocial developmental tasks which individuals accomplish, Erikson's theory associates old age with the notions of generativity and integrity. The developmental perspective (Erikson, 1950, 1982) allows to analyze the phenomenon of later life learning in the context of positive development of identity in later life. The theorists of older adulthood have proposed a variety of developmental tasks for this life stage. Maslow (1970) in his psychosocial theory of the hierarchy of needs (motivation) relates development in later life with the goal of attaining the self-actualization stage, when the individual can become what they can become. The interdisciplinary approach allows exploring the dynamics between older adulthood as a developmental life-stage and the role of learning at this stage by positing the analysis of the construct of older adult learning in terms of personal growth continued in later life.

Methodological perspectives

Social constructivist paradigm. The social constructivist paradigm as a theoretical approach is adopted in the present study. The social constructivist theory (Berger & Luckmann, 1991) views the reality as socially constructed, and links the construction of knowledge with the individual's

experience and active role in creating the environment and the self. Based on the social constructivist paradigm, ageing is viewed as a social construct, which encompasses social processes and interactions and develops through human relationships embedded in certain time periods and cultural contexts (Johnson, 2005). The constructivist approach was suggested for studying self-direction in later life learning by some leading adult education theorists (Candy, 1989, Illeris, 2003). From the constructivist perspective, self-directed learning may be viewed as “a process of constructivist understanding and development towards a more holistic being within a lifespan perspective” (Kasworm, 2011, p. 24). Viewing learning in later life from a constructivist perspective, the meaning of learning to the aging individual is emphasized and linked to their lives and self in specific social and cultural contexts (Tusting & Barton, 2006), which highlights the significance of older adults’ lifestyle and environment to learning. Learning in later life may be viewed as becoming (Hodkinson et al., 2008), when the learners undergo a process of personal construction and reconstruction adapting to the new age-related circumstances. Constructing knowledge from their daily life (Jarvis, 2012), older adults develop specific learning patterns, which may be affected by the individual’s learning space, and the challenges arising from the social environment if combined with the availability of personal and external learning resources (Schmidt-Hertha, 2013). Some recent research on later life learning showed older adults constructing practical knowledge, based on informal life experiences (Kimberley, et al., 2016), and engaging in constructing identities for later life (Carragher & Golding, 2015).

Qualitative research paradigm. The present study is based on relativist ontology and subjective interpretive epistemology. The relativist ontology postulates that the purpose of scientific inquiry is to understand the subjective experience of multiple realities, which come from unique interpretations of experience by individuals. The subjective epistemology, which guides the present study, assumes that knowledge is value laden and “filtered through the lenses of language, gender, social class, race, and ethnicity (Denzin & Lincoln, 2005, p. 21). The phenomenon of self-directed learning in later life is interpreted in the perspectives of the research participants, which become the basis for the theory constructs (Bryman, 2008). Social reality is a social construct created by means of language and the knowledge created is based on transaction and subjectivity (Denzin & Lincoln, 2000). The understanding and articulation of experience of ageing in relation to personal development is created through communication between the participants and the researcher at the interview, and then interpreted and re-constructed by the researcher (Charmaz, 2006). The analysis of the constructs and their meanings allows to understand the participants’ subjective views of themselves and the environments. The relativist ontology based on the assumption that reality exists only through subjective experience and subjective epistemology are associated with the interpretivist research paradigm. The qualitative research paradigm allows the researcher to focus on the phenomena related to a specific area of inquiry and gain understanding of human experiences by disclosing their subjective meanings in particular contexts of social reality (Creswell, 2007; Flick, 2009) as embedded in the participants’ perceptions and experiences. In the present study, I adopted the interpretive qualitative research paradigm due to the lack of research revealing self-directed learning in later life in the context of generativity, with the view that qualitative research renders the potential to advance understanding of the lived experiences of the older adults engaging in their self-directed learning.

Grounded theory methodology. The choice of methods and processes of the grounded theory study is guided by their congruence with the interpretive research paradigm. The choice of the grounded theory methodology is predicated on the view that the existing theories are insufficient to explain the

research phenomenon (Creswell, 2007). The grounded theory, if viewed from the relativist ontology, assumes that the researcher is unable to fully understand and reconstruct the reality (Corbin & Strauss, 2008). In the interpretivist perspective, the reality can only be learned through representations, as knowledge is relative and represents the reality through individual interpretations (Denzin & Lincoln, 2005). Acquisition of the knowledge about the external reality is affected by individual reflection and interpretation, and meaning comes from the subject and is imposed on the object (Corbin & Strauss, 2008). The aim of the grounded theory research is to conceptualize the empirical data, i.e. to develop an abstract analytical theory explaining processes or phenomena based on empirical data about the participants' experiences and attitudes (Creswell, 2007).

Novelty and significance of the study

The aim of the study is to theorize older adults' self-directed learning through their engagement in generativity: to identify the meaning of learning, describe the process and its elements, and explain the factors which affect implementation of learning. The novelty of the grounded theory lies in linking self-directed learning with generativity in later life. In self-directed learning theory and research, the concept of self-directed learning has not been considered in relation to the concept of generativity as context to later life learning. The synergy of the concepts of generativity and self-directed learning is displayed in the grounded theory of self-directed later life learning in informed generativity. The significance of the study lies in the conceptualization of self-directed learning in generativity-related context in later life by revealing the characteristic elements of the learning process and the contextual influences. Based on the findings of empirical research, the study provides a grounded theory, which presents an interactive model of self-directed learning elaborated on by showing the interrelation between generativity and later life learning. The grounded theory proposed in the study represents the phenomenon of older adults' continuous self-development in informed generativity implemented through self-directed learning in a holistic approach which encompasses causal and intervening conditions, context, action strategies and consequences. It contributes by introducing a new contextual perspective and its influence on self-directed learning. The variety of self-directed learning experiences is revealed by providing empirical data from the research participants.

The structure and volume of the study

The study consists of an introduction, four chapters, conclusions, recommendations, list of references, and appendices. There are provided 6 tables, 4 figures and 9 appendices. The volume of the study is 268 pages. The reference list of literature contains 362 entries.

1 CONCEPTUALIZATION OF THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS

1.1 Learning in older adulthood: literature review and concept analysis

In this chapter I will explore the concept of learning in older adulthood and its characteristics based on a large body of theoretical studies by the leading scholars and selected empirical studies.

State-of-the-art review was carried out to identify the current state of knowledge (Grant & Booth, 2009) and explore the development of the theory in the past perspective. I will start with discussion of the notion of “older adulthood” and the perspectives of its definition. Then I will analyze the complexity of the concept of later life learning looking into some of the epistemological approaches to learning in older adulthood. The review of empirical studies allowed me to establish the main dimensions of later life learning relevant to the present study. I carried out a comprehensive search for current literature in the following online databases: EBSCOhost, ScienceDirect, and Taylor and Francis. The details of the selection criteria and the process will be provided in the following section of this chapter (see section 1.1.2.2).

1.1.1 The concept of older adulthood as a developmental stage

The theory of older adult learning generally builds up on the concept of older adulthood as a developmental stage. The issue of the impact of older adult development on later life learning is of particular concern to my research. In what follows, I will discuss the social and psychological perspectives which are relevant to the definition of the construct of “older adulthood” to be used in the present study.

1.1.1.1 The complexity of the „older adult” definition

The concept of older adulthood may be viewed from different theoretical perspectives taking into consideration chronological age, cultural and psychosocial aspects. As a social notion, the term „older adults” is generally associated with the person’s age and social status of post-work. In different social systems there are some specific age bands for retirement, which may start as early as 50. The concept of „post-work” is generally defined as not having full-time employment in the sense of „no longer primarily involved with earning a living on a full-time basis and/or with raising a family” (Withnall, 2006, p. 32). However, this definition does not preclude some paid part-time work in casual capacity or involvement with care for grandchildren or relatives (Withnall, 2006). Laslett (1989) proposed the idea of four ages, old age being associated with the terms of „Third Age” and „Fourth Age”. However, Laslett (1989) associated the terms not with a period of time, but rather with a type of life quality, and there may not be a clear passage from the second to the third age as they may run alongside in a person’s life. Fisher (1993) proposed a five-period model of older adulthood reflecting the developmental change through transitions. Fisher’s model identifies continuity in later life with middle age. The person’s transition through the first three stages is manifested by adaptation to change and developing an older adult lifestyle. The last two stages are associated with losses and dependency. However, this linear approach goes under criticism for ignoring the fact that people may move in and out of the fourth stage instead of descending into complete dependency (Withnall, 2006). The other aspect emphasized when defining old age as post-work period and based on the premise that being post-work at this stage, older individuals do not relate their identity or meaning of life to employment (Fisher & Wolf, 2000) is also ambiguous. As pointed out by Hodkinson and colleagues (2008), retirement and third age are generally considered together as a stable stage in life, when the retirement event leads to the new stage of being (Hodkinson et al., 2008, p. 170).

However, the aforementioned definitions of „older adults” are ambiguous, as they emphasize only chronological age and social status, ignoring other important cultural and psychosocial aspects which are crucial to understanding the phenomenon of old age in respect to human development and learning, taking into account the heterogeneity of the public this term may be applied to. As pointed out by Neikrug and colleagues (1995), despite some society’s consensus that old age begins in mid-60s, this group of population deny the term and view themselves as middle-aged, which points to some criteria other than chronological age. There may be alternative and competing criteria for old age, which are of the self-defined nature and include the individual’s feel of one’s age, behavioral patterns, lifestyle and thinking (Furstenberg, 1989, as cited in Neikrug et al., 1995). People may redefine their age in response to changes in physical and social functioning (Kuypers & Bengston, 1984, as cited in Neikrug et al., 1995). In the perspective of personal growth and learning in later life, the focus of definition should be on the developmental objectives (Glendenning, 1992; Lemieux & Martinez, 2000) of the life stage rather than chronological age which is an insufficient variable to define the public of older learners (Kern, 2018).

The analysis of the current definitions of older adulthood shows that, as a phenomenon, the older adulthood (third age) may be only conceptualized taking into account complex relationships between the social status, the generational characteristics and changing social cultural environment. The multiplicity of influences on the life course operate in “an interrelated and highly complex manner within a continually changing and evolving social and cultural context over time” (Withnall, 2006, p. 45). Older adulthood may be defined as a dynamic multidimensional construct with the following characteristics: dynamics, multi-layered structure, and multi-faceted nature. Multi-dimensionality includes chronological, physical, social, cultural, and psychological aspects. The changing profiles and roles of older adults are reflected in the development of new approaches to aging, which I will review in the following sub-chapter.

1.1.1.2 The developmental and social perspectives of older adulthood

Developmental tasks in older adulthood

Developmental theories describing stages of growth in human development, and Erikson’s (1963, 1980) theory of life stages in particular, became an influential framework for research on ageing almost six decades ago. Erikson’s model of eight developmental life-stages is based on a linear perspective of an individual’s development through the lifetime related to conflicts and tensions that an individual is faced with at each stage. Based on the psychosocial developmental tasks which individuals accomplish, this theory associates old age with the notions of generativity and integrity. In the last stages the individual is faced with the tension between generativity, which asks for leaving something behind for future generations, and stagnation. The tension between despair and acceptance of the future, which an individual encounters in old age, is based on the integration of previous life. The tension may be resolved through the process of revision and development of wisdom – „involved estrangement” (Erikson et al., 1986). The issue of integrity in later life was also developed in Butler’s (1963) theory of „life review” and the concept of reminiscence. He proposed that „life review” as a natural and universal mental process when an older individual evaluates one’s past experiences by the progressive return to „consciousness” of the experiences and reintegrates them. This reevaluation is essential for reaching the integrity in older adulthood. Older individual exploring connections

among life experiences leads to integrity which may develop into the capacity of wisdom (Bateson, 2010, as cited in Pfahl, 2012). In scholarly literature the concept of wisdom is associated with later life learning at a large extent. Following Jarvis' (2001) definition of wisdom, it is viewed as a biographical store of knowledge, opinions and insights gained through life, which can be considered an outcome of one's own learning. Wisdom encompasses possessing knowledge, realization of its applicability, cognitive capacity and personal insight, ability to integrate prior and current knowledge, and understanding of its potential impact on future outcomes (Parisi et al., 2009, p. 871). Ardel (2000) proposes that wisdom is needed for achievement of the developmental goals in later life (p. 772) and is crucial for aging well.

The theorists of older adulthood have proposed a variety of developmental tasks for this life stage. Maslow (1970) in his psychosocial theory of the hierarchy of needs (motivation) relates development in later life with the goal of attaining the self-actualization stage, when the individual can become what they can become. In Maslow's (1970) theory self-actualization may be fully achieved in older adulthood, when an individual is faced with the awareness of the limited number of years left. However, in his later revision of the self-actualization theory Maslow (1971) introduced a further dimension – transcendence, which means going beyond oneself aiming at altruism and spirituality. "Transcendence" has been identified as later life development goals by later scholars (Moody, 1986; Jarvis, 1992; Narushima, 2005). For example, Narushima (2005) associates it with "ego-integrity", "the quest for an authentic self" and spiritual growth (p. 39). The theory of gerotranscendence (Tornstam, 2005) proposes the concept of gerotranscendence as a developmental change in one's worldview to a wider perspective of interpretation of the present in respect of the past experiences – "qualitative redefinition of reality" (Tornstam, 2011, p. 172). Gerotranscendence implies a shift in perspective, from a materialistic and rational view of the world to a more cosmic and transcendent (Tornstam, 2011, p. 166). Later life goals may be associated with the need to achieve a sense of completeness by recapitulating and reintegrating previous life experiences (Luppi, 2009, p. 246). Moody (1985) proposed a model of growth and search for meaning as an existential imperative disregarding the finitude of human life. Havighurst (1972) associated the developmental tasks with adjustment to new social roles and living arrangements. Roberson and Merriam (2005) provided a comprehensive list of the later life developmental issues impacting personal learning, which includes the following: retirement-associated cultural norms and personal expectations; generativity and leaving a legacy; feeling positive about one's life and choices; changes in the body; loss (of respect, acquaintances, health).

Exercising agency in older adulthood

Aging is considered an important characteristic and one of the critical factors influencing later life development. There are three major psychosocial theories of aging including the disengagement theory, the activity theory and the continuity theory, which have influenced gerontological research on later life agency. Cumming and Henry (1961) proposed the disengagement theory explaining old age as an individual's withdrawal from meaningful activities or disengagement from social interaction and society's disengagement from the older individual. As opposition to the disengagement theory, there was the activity theory developed (Havighurst, 1972; Hooyman & Kiyak, 2002), which proposed for a positive relationship between an older person's active engagement and life satisfaction and physical and mental health. Adopting a functionalist perspective, the activity theory argues for the replacement of middle age roles with alternative old age roles.

Developed in the perspective of social gerontology, the continuity theory (Atchley, 1989) proposes the concept of continuity as an older person's adaptive strategy for aging related changes. Atchley (2006) states that in later life an individual attempts to maintain their middle age experiences-based patterns of activity using adaptive strategies for dealing with aging-related changes. This adaptive strategy is also related to higher levels of physical and mental health. Literature review shows there is a variety of approaches adopted within lifespan theories in terms of the types and relevance of adaptive processes. In his development of the theory of successful aging, Kleiber (1999) adopted a combination of the three perspectives of aging - the disengagement theory, activity theory and continuity theory. Older adults may use adaptive strategies combining voluntary selective disengagement from some areas of activity, and selecting a certain adequate amount of meaningful activity, and maintaining the well-established patterns of thinking and behavior. In terms of later life learning, the older individual is developing one's strategies of selective disengagement and engagement in purposeful activities (Kleiber, 1999). The concept of agency of an older individual in seeking for the balance between gains and losses in later life is central to the „Selective optimization with compensation” (SOC) theory (Baltes, 1991; Baltes & Baltes 1990), which may be considered one of the most influential theories in the aging research. The selective optimization with compensation principle proposed by Baltes & Baltes (1990) maintains that in order to maintain functioning older people adapt to age-related changes by selecting the domains of functioning in which they are still competent. Due to the dynamics of both the person and the environment, adaptation may take different forms. The individual adaptation form and the extent are dependent on the individual abilities to adapt in response to the changing demands of the environment. Later life development also encompasses adaptation to physical limitations and social loss - physical and social change. Although this model describes the process of adaptation through an individual's life, it is particularly significant for exploration of later life in terms of providing a framework which combines physical, mental and social influences. When applied to later life, this integrative paradigm of the three elements shows the dynamics between physical, mental and social aspects. The model proposes a combination of three processes, including selection, optimization and compensation, application of which allows an older individual to utilize the available resources. Applied to older adulthood, the SOC model may be considered as a strategy for an older individual to take control over the aging processes employing the knowledge and experience acquired in the life course as a resource to compensate for aging-related losses. Selection processes are focused on new age-related developmental goals and allow identifying the areas the individual chooses to maintain; optimization processes are focused on the use of resources, and enable the use of available learning abilities; and compensation processes are focused on maintenance of functions faced with loss of previous resources and allow the older person to use the reserve and external resources to make up for restricted abilities. In this model the individual's adaptive capacity and agency are exercised at a high extent, and it also encompasses the cognitive aspects of self-development and self-management. This model has been substantiated by an extensive body of research, which also shows that not all older people use the mechanisms of selection, optimization and compensation (Baltes & Baltes, 1990). The theory may be considered as „a model of equilibrium between the push towards engagement and pull of retirement” (Luppi, 2009, p. 247). In Russell's study (2007) the participants used 'growth and development' and 'integrity and continuity' to strengthen a belief that they could achieve the outcomes they wanted for themselves (p. 377). Rowe and Kahn (1987) adopting the medical gerontology perspective defined the „successful aging” as a type of aging characterized by physical

and social criteria including absence or low risk of disease/disability, high mental and physical functioning, and active engagement with life manifested through continued productivity. In the perspective of life-span theories, successful ageing is based on adaptive processes to balance gains and losses, maintaining the current satisfactory state and regulating loss (Baltes et al., 2006). The potential gains of older age may include wisdom, which encompasses “factual and procedural knowledge, lifespan contextualism, relativism of values and life priorities, and recognition and management of uncertainty” (Baltes & Staudinger, 2000, p. 122, as cited in Ranzijn, 2002, p. 39); increased ability to regulate emotions, leading to contentment and acceptance of life; high level cognition and will-power (conation) expressed as resilience and the ability to persevere in the face of obstacles; an expanding store of memories, experiences and competencies, and an “enhanced appreciation of the complexity and beauty of human existence”, and “the capacity to be better citizens and conservationists” (Ranzijn, 2002, p. 39). The losses of old age may include physical limitations of an ageing body and health, and social limitations related to respect, social status and socializing (Roberson and Merriam, 2005).

The literature review shows that the dimensions of psychosocial development in later life may be considered central to the research on older adult learning. There are a number of epistemological approaches applied to the studies of older adulthood as a developmental stage. Being an influential psychosocial development theory, Erikson’s theory provides a lens for interpreting psychological dynamics of later adulthood associated with developmental goals linked to previous life experiences. Personal growth in later life is a construct shared by different developmental theories suggesting a number of concepts of developmental tasks including generativity, ego-integrity and transcendence. Generativity as a developmental task from middle adulthood on is expressed in guiding and caring for the next generation. Ego-integrity is defined as self-acceptance in old age, as integration and acceptance of the elements of the life lived (Erikson, 1963). Transcendence (and gerotranscendence) is closely linked with generativity as going beyond oneself aiming at altruism and spirituality. However, Erikson’s model was criticized for lack of the socio-cultural perspective and a need for a more inclusive integrative model, which would incorporate the diversity of contextual influences the individual encounters in the life course. Later development of the life-span theories (Baltes et al., 2006) focused on combining the social and psychological dimensions and linked aging with the comprehensive context of the development of an individual over entire life span (Baltes et al., 2006). They build up on the concept of the balance between losses and gains and the developmental goal of maintaining the current state and loss regulation being crucial in later life. The significance of the life-span theories in the development of the aging concept is the link between aging and development. An older individual continues to encounter experiences as an outcome of change and growth, which embody a need for learning. The SOC perspective (selection, optimization and compensation) (Baltes & Baltes, 1990) may provide a useful framework for studying older adults’ self-directed learning, which allows to explore the motivation and process of later life learning as development of ways to cope with the effects of ageing on an older person’s behavior.

1.1.2 The multidimensionality of the concept of later life learning

With the recognition of older adult learning as a distinct field of research, there arises a need for defining the epistemological grounding of research in the existing theories. In the following section

I will discuss the major epistemological approaches and disclose the properties of the concept of older adult learning based on qualitative systematic literature review.

1.1.2.1 Epistemological approaches to older adult learning

The duality of older adult learning: from Gerontology to Education sciences

As suggested by Kern (2018), the first idea about older adult learning goes back a few centuries to Jan Amos Komensky, who proposed a model of lifespan education, and was the first to consider older adults as learners and self-learning as the most suitable approach (Kern, 2018). However, the concept of later life learning has been subject to academic debate for decades about two different research disciplines - Gerontology or Education - as the basis for the conceptualization (Kern, 2018). Initially, Gerontology as a multidisciplinary epistemological approach to later life was adopted to studies of older adults learning as a specific area of research (Donahue, 1952). The main goals were associated with assisting elderly people to use their potential and stay integrated in society (Donahue, 1952). Within the boundaries of Gerontology, there was a specific discipline developed – Educational Gerontology, which was defined as a field including education for older people, education about ageing and professional training (Peterson, 1976). Although criticized for its functionalist paradigm (Battersby, Glendenning, 1992), the Educational Gerontology approach has become generally adopted by a large number of researchers as a framework for older adult education and learning studies (Kern, 2018). Glendenning (1989) proposed separation of the areas within the discipline of educational gerontology by introducing the term Gerontological Education for teaching about gerontology. The first term for the theory of education of the elderly based in Education sciences – Gerontagogy – was introduced by Bollnow (1962 as cited in Kern, 2018, p. 339), who applied this approach only to those who needed assistance in learning in later life, considering other older adults self-directed learners (Kern, 2018). Later there were some other terms proposed for older adult education – Geragogy (Geragogik) (Mieskes, 1971; Veelken, 1990 as cited in Kern, 2014, p. 76), or Gerogogy (Battersby, 1987; Glendenning, 1992) as an education science in line with the terms of Pedagogy and Andragogy as applied to earlier stages of human development and education (Lemieux & Martinez, 2000).

Analysis of later life learning within the framework of either Gerontology (Educational Gerontology) or Education (Andragogy) presents some conceptual challenges. The argument of qualitative difference between older and younger adult learning may be found in the andragogy model being not fully applicable to the learning in later life due to the heterogeneity of this group of learners (Glendenning, 1992; Lamieux & Martinez, 2000). The main epistemological distinction between the different approaches lies in the fact that in the educational science perspective the learner's age is considered only a variable like health condition or educational level, whereas the educational gerontology perspective looks at the heterogeneous public of older adults (Lemieux & Martinez, 2000; Kern, 2014). However, as Kern (2014) states, gerogogy, gerontagogy, geragogy or full continuing education may also give priority to the educational perspective before age, and thus the gerontological models work on adults in learning situations, while educational sciences deal with learning situations which include older adults (Kern, 2014, p. 78). Ranzijn (2002) points out that gerontology places more emphasis on the declines of ageing rather than positive gains, and much of the research is “concerned with maintenance of residual function rather than identifying and enabling

continued growth” (p. 39). Pointing to the need to re-conceptualize adult learning, Merriam (2001) stated that learning and development are not to be separated as they occur across the lifespan.

The attempts to invent special terms for teaching and learning of older adults show that learning in later life is considered as qualitatively different from learning in other stages of life and is being established as an independent discipline and a field of research. However, there is still considerable discussion about the distinction of this field from the discipline of Andragogy. If the andragogical paradigm is adopted for exploring later life learning as a stage of the lifespan, it is generally associated with both continuity and change through transition from the middle adult age to older adulthood. The andragogical concepts applied to later life learning include the central role of the learner, and experience as fundamental basis to build up learning, and facilitation of learning through supportive and accepting learning environment (Luppi, 2009). The issue of „later life learning” being different from adult learning has been widely debated in academic literature. As in most cases it is not continuation from previous learning experience, it may be qualitatively different from past learning experiences (Withnall, 2010). There is a justification for separation based on the purposes of learning – asserting that learning is related to making meaning from this stage of life (Fisher, Wolf, 2000). Provision of sounder theoretical and empirical arguments would make the distinction more evident. However, Fisher (1998) in his examination of the major streams of older adult learning points out that a large part of research is based in the domain of general adult education and cognitive development. Some arguments are sought in the social aspects including different social roles in later life as compared to previous stages (Havighurst, 1972; Jarvis, 2001) or anthropological age differences (Bollnow, 1962; Mieskes, 1971 as cited in Kern, 2018, p. 345).

The central issue in the later life learning relates to the goals of learning. From the critical geragogy perspective, later life learning is associated with autonomy and maintaining control in later years (Glendenning, Battersby, 1990). In the view of the selective optimization through compensation model (Baltes & Baltes, 1990), learning helps an older individual to adapt to and compensate for aging-caused limitations and losses, which may result in a more self-sufficient life. Older adults may create new opportunities for themselves when faced with their limitations (Russel, 2007). Jarvis (2001) argues for the role of later life learning being embedded in learning for the life beyond work and development of new identities after retirement - personal and social (Jarvis, 2001, p. 75). From the generativity perspective (Erikson, 1963), learning in later life is associated with avoidance of stagnation. In coping with changes that ageing and the retiree status brought about in their lives, two dimensions become relevant – adaptation and change. Tennant (1997, as cited in Russell, 2007) suggests that at the heart of adult learning there is an ongoing dialectical process of the learner's response to a changing world, where the learner is in complete control. Older people often have progressive attitudes towards change, accept it, and take personal responsibility for coping with it (Withnall, 2006). The notions of what constitutes “learning” and its relationship to social activity of aging people may change and differ among older individuals (Withnall, 2006). Field (2012), referring to the Finnish studies (Antikainen et al., 1996; Aro et al., 2005), proposes to use the concept of “educational generations” for exploring learning in later life as there are some significant differences between generations in their attitudes and orientations towards education and learning resulting in different generational understandings, and different learning patterns. Therefore, there is a need for later life learning to be studied from wider perspectives including cultural, economic, social or political contexts (Findsen, 2005). The conceptualization of later life learning also incorporates cultural values (Tam, 2012), which may determine the engagement in the learning process (p. 663).

The shift from the cognitivist to constructivist perspective to later life learning

The issues raised by cognitive theory in terms of older individuals are those of intellectual development affected by aging. Schaie (1990) points out association of cognitive development in late adulthood with the reintegrative stage, when older individuals use their intellectual skills in reexamination of their past experiences and focusing on meaningful tasks based on their ability restricted by biological changes. General cognitive activities continue to develop, although the complexity and flexibility of cognitive functions may decline (Schaie, 1990). However, declining memory and some other cognitive functions may be compensated by the adaptive skills. Labouvie-Vief (1990) argues for the adaptiveness of intelligence - „intelligent pragmatism”, which allows development of the skills needed for life functioning. Some studies have demonstrated the learning potential continued throughout the life time provided the person’s cognitive functioning is not affected by neurophysiological diseases (Ardelt, 2000, p. 772). Maintaining stable intellectual abilities and functioning is associated with older person’s engagement in cognitive activities, which may facilitate development of spatial orientation, inductive reasoning or fluency (Schaie, 1990). Ranzijn (2002) argues that “older people may have greater potential for achieving excellence than younger people in certain domains, particularly those in which time is not a limiting factor” (p. 39). As pointed by Moody (1986, as cited in Ardel, 2000, p. 773) older age may be considered a period when the individual’s learning should go into „what is deeper and more essential” reducing the quantity and complexity of information. However, gerontologists hold divergent viewpoints about the capacities, competencies, and potentials of older people (Ranzijn, 2002). A possible reason for this “lack of consensus is a historical over-emphasis on studying individuals in isolation rather than as active agents interacting with their context” (p. 40).

The constructivist approach suggesting that an older learner actively participates and constructs the meaning of one’s own learning has established itself as a dominant perspective on later life learning (Istance, 2015). The constructivist perspective views learning embedded in the older learners’ lives and particular socio-cultural contexts. The meaning of learning is linked to the self of an aging individual (Tusting & Barton, 2006). The shift of learning paradigm from cognitivist focus on information processing towards the socio-constructivist understanding of the active learner role highlights the significant role of the learning situation (De Corte, 2010, p. 41) impacted by the lifestyle and the learning environment. The individual’s learning space (Jarvis, 2012) impacts older adults’ construction of knowledge and development of particular learning patterns from the daily life. The process of later life learning may be constructed in social interaction (Merriam & Clark 2006; Taylor & Lamaroux, 2008). The challenges in the social environment combined with the learning resources also may affect the construction of learning (Schmidt-Hertha, 2013). Wolf (2009) proposed four elements in the process of learning of older people including differentiation, dissonance, deconstruction, and reconstruction, which occur in the individual’s information processing system. Learning as becoming may encompass a process of personal construction and reconstruction adapting to the new age-related circumstances (Hodkinson et al., 2008). Active dynamic participation may become a context for construction of opportunities for personal growth (Luppi, 2009, p. 248).

To sum up the discussion of epistemological (conceptual) approaches to later life learning based on the literature review, there are two major approaches to conceptualization of learning in older adulthood - gerontological and educational. The distinction is primarily found in the purposes of learning in later life associated with age-related differences as compared to earlier life stages.

Although later life learning has established itself as a distinct field of research, there is still a need for more theoretical arguments and empirical evidence of the specific qualities of learning with respect to the developmental tasks at this life stage. Analysis of the scholarship in the field points to a need for later life learning to be studied from complex perspectives adopting multidisciplinary approach which incorporates social, cultural, economic, or political contexts. In the last decades of research on later life learning there has been a shift from the cognitivist to constructivist perspective to later life learning. The paradigm shift is reflected in shifting from cognitivist focus on information processing towards the socio-constructivist understanding which views an older learner as actively participating and constructing the meaning of one's learning in a particular socio-cultural context. The constructivist approach allows exploring the dynamics between older adulthood as a developmental life-stage and the role of learning as linked to previous life experiences. Therefore, the analysis of the construct of older adult learning may be posited in terms of personal growth in later life.

1.1.2.2 The dimensions of learning in older adulthood

For the purposes of disclosing the properties of the concept of contemporary older adult learning (with the focus on the self-learning as informal learning), qualitative systematic literature review, which is also called qualitative evidence synthesis, has been carried out looking for „themes” or „constructs” across individual qualitative studies (Grant & Booth, 2009). By use of the meta-synthesis technique findings of multiple qualitative research studies are integrated, evaluated and interpreted. This type of review is recommended when inductive research approach is adopted, as it incorporates thematic analysis and conceptual models, and its goal is interpretative and furthering understanding of the phenomenon of the study (Grant & Booth, 2009). The selective sampling of literature sources for the review was employed defining the method of sampling to ensure the appropriateness of the papers to be included. The key words were related to two categories: older adult and learning. The potential terms (Torraco, 2016), which may be associated with the notion of older adults – „elderly”, „third age”, „later life”, „older adulthood”, „older people” were also included. The search words were identified in the titles, keywords, and abstracts. I included the publications meeting the following criteria: full text, published in a peer-reviewed journal; written in English; publication date between 1950 and 2020. The initial search produced 135 publications. The further screening focused on two criteria: (1) empirical study using qualitative methods; (2) study of learning of an informal type. The further search produced 21 publications. I included studies which focused on any aspect of informal learning in later life, and excluded studies of older adult learning in formal or non-formal environments. My argument for choosing this methodology was based on the opportunity to adopt concepts from primary qualitative research. Appendix 1 comprises the information on the empirical studies used for the concept analysis, which indicates the publication details (authors, and the years), the guiding theory, methodology descriptors (data collection methods, data analysis methods, participant characteristics), the aims of the study, and the main findings.

The literature review allowed me to identify the themes representing the salient issues of later life learning which are the focus of recent scholarship. In terms of concept analysis, the following themes were identified as reflecting the antecedents of informal learning in later adulthood: the meaning of time, the influence of health-related factors, the aging personality-related factors, the aging-related environmental influences. The themes of interconnection between learning and

maintaining agency in older adulthood, learning motivation based on older learners' developmental tasks and needs, the multidimensionality and integrated nature of the learning process were identified as attributes of the concept. The consequences are associated with the themes of the life review and integrity, and the individual and social nature of the learning outcomes (consequences). Table 1 presents an overview of the conceptual dimensions of later life learning.

Table 1. The conceptual dimensions of later life learning

Conceptual dimensions	Characteristic features of dimensions
Antecedents (contextual influences)	
The meaning of time	Absence of time constraints on learning opportunities (Russell, 2008; Pfahl, 2011) Repositioning the goals (Russell, 2008) with awareness of the finitude of future (Russell, 2011; Narushima et al, 2017) Integration of past, present, and future (Russel, 2008; Narushima et al., 2017)
Health-related factors	Control of declining cognitive abilities (Drag & Bieliauskas, 2009; Desjardins & Wamke, 2012) The influence of the person's poor health on the possibilities for learning (Hodkinson et al., 2008; Tam, 2016; Boulton-Lewis et.al., 2006; Boulton-Lewis et.al., 2017) Learning triggered by adapting to declining health (Valente, 2005; Rager, 2006; Withnall, 2017).
Aging personality-related factors	Self-confidence, self-esteem and self-efficacy as intervening circumstances (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Russell, 2007; Hodkinson et al., 2008; Friebe & Schmidt-Hertha, 2013; Narushima et al., 2017). Person's dispositions - positive thinking, being open to new ideas, being tolerant of and helping others (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Hodkinson et al., 2008; Friebe & Schmidt-Hertha, 2013). Acceptance of age-related changes and limitations (Purdie & Boulton-Lewis, 2003; Russel, 2007; Friebe & Schmidt-Hertha, 2013). Previous educational level and learning experience (Boulton-Lewis et al., 2006; Withnall, 2006; Merriam et al., 2007).
Aging-related environmental influences	Stimulation for learning from social environment (Pinquart, 2002; Moon, 2008; Schmidt-Hertha, 2013) Supportive learning cultures: elderly subculture (Luppi, 2009; Narushima et al., 2017), intergenerational environment (Hodkinson et al., 2008; Thalhammer, 2012); community environment (Buffel et al., 2012; Carragher & Golding, 2016)

	Aging-related challenges as motivators or negative influences on learning (Fisher, 1998; Roberson & Merriam, 2005; Hodkinson et al., 2008; Boulton-Lewis et al., 2017)
Attributes (the nature of the learning process)	
Learning motivation based on older learners' developmental tasks and needs	<p>Search for meaning (Russel, 2008 Carragher & Golding, 2016)</p> <p>Adjustment to aging-related changes (Hodkinson et al., 2008; Findsen & Formosa, 2011)</p> <p>Remaining in control of one's life (Wolf, 1998; Chaffin, Harlow, 2005; Russel, 2007; MacKean and Abbott-Chapman, 2011; Narushima et al., 2017; Withnall, 2017)</p> <p>Personal growth (Lamb & Brady, 2005).</p> <p>Cognitive interest (Boulton-Lewis et al., 2006; Tomstam, 2011; Talmage et al., 2015; Serrat et al., 2016)</p> <p>Social stimulation (Merriam & Mohamad, 2000; Kim & Merriam, 2004; Serrat et al., 2016; Tam, 2016).</p> <p>Instrumental reasons (Purdie & Boulton-Lewis, 2003; Boulton-Lewis et al., 2006; Serrat et al., 2016; Tam, 2016)</p> <p>Aging-related barriers to learning (Purdie & Boulton-Lewis (2003)</p>
Interconnection between learning and maintaining agency	<p>Empowerment and emancipation as primary roles of learning (Chaffin & Harlow, 2005; Findsen & Formosa, 2011)</p> <p>Improvement of social status (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Russell, 2005, 2007, 2008).</p> <p>Self-efficacy (Russell, 2007, 2008; Tyler et al., 2018)</p>
Multidimensionality and integrated nature of the learning process	<p>Prevalence of informal mode of learning (Strobelet et al., 2011; Merriam & Bierema, 2014; Brink, 2017),</p> <p>Relationship between active aging and informal learning (Schmidt, 2013)</p> <p>Merging different types of learning (Eraut, 2000; Schugurensky, 2000)</p> <p>Development of a unique model of learning in response to the specific conditions of the older learner's life (Eraut, 2000; Schugurensky, 2000)</p> <p>Learning as becoming - an integrated system with physical, practical, emotional and cognitive elements (Hodkinson et al., 2008; Pfahl, 2011; Narushima et al., 2017)</p> <p>Learning as a transformative process (Moody, 1986; Moon, 2008)</p> <p>Situated social learning (Golding, 2011; MacKean & Abbott-Chapman, 2011; Serrat et al., 2016)</p>
Consequences (the impact of learning on the older person's life)	
Life review and integrity	<p>Continued spiritual development and transcendence (Merriam, 1990; Formosa, 2011).</p> <p>Achieving self-integrity (Withnall, 2003; Russell, 2008)</p> <p>Development of review strategy (Ardelt, 2000; Luppi, 2009; Narushima et al., 2017)</p>

Individual and social nature of learning outcomes	<p>Interactive effects of learning at the individual and social levels (Eraut, 2000; Schuller et. al., 2002; Merriam & Kee, 2014)</p> <p>Sustaining effect on individual and community well-being (Schuller et al., 2002)</p> <p>Improvement of self-confidence, self-esteem and self-efficacy (Merriam & Mohamad, 2000; Schuller et al., 2002; Purdie & Boulton-Lewis, 2003; Russell, 2007; Hodkinson et al., 2008; Friebe & Schmidt-Hertha, 2013; Narushima et al., 2017).</p> <p>Enhancement of self-reliance, self-sufficiency and coping strategies (Ardelt, 2000; Withnall, 2000; Boulton-Lewis, 2010; MacKean & Abbott-Chapman, 2011; Carragher & Golding, 2015; Chen, 2016)</p>
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Antecedents

The meaning of time in later life learning

The ontological and existential dimensions of time in the perspective of later life have been emphasized in a large body of research on later life learning (Jarvis, 2001; Wolf, 1992, 1998; Russell, 2008, 2011). Research generally focuses on the influence of time factors on understanding the context of later life learning and the choice of the approach (Russell, 2011). In later life learning scholarship, older adulthood is viewed as a unique period in terms of learning opportunities without time constraints (Russell, 2008; Pfahl, 2012). Russell (2008) in her study of time and meaning in later life learning argues for a considerable influence of the older individual's awareness of time on later life, which contextualizes the life-world of people in later life „in a form not present at other stages in life” (Russell, 2008, p. 207). In her study of ICT learners, Russell (2011) points to two significant aspects: the person's awareness of the limited number of the years left and the longer period after retirement. Acknowledging the finitude of human life, later-life learners intend to live full life and “weigh up their lives in a way not possible when younger”, “play with it” with awareness and being able “to look back while looking forward from the position of the present” (Russell, 2011, p. 561) and “coming to terms with the finitude of their life” (p. 562). Older learners “reposition themselves in relation to goals to enable growth and development within the time left to them” (Russell, 2008, p. 221). Accumulation of temporal experience results in the process of becoming and recreating identities, and allows the individual to become better positioned to revise one's experience (Pfahl, 2012, p. 72). A heightened sense of time is combined with the search for the authentic self and the integrity of the self (Russell, 2005). Narushima and colleagues (2018) in their later life learning study of vulnerable older adults identified integration of past, present, and future: past time being directed inward is interwoven with the products of learning, whereas present (time to fill), and future (time left to grow) are viewed in terms of the benefit of continued learning. Older adults are willing to “keep growing and moving with time while realizing their limited future” (Narushima et al., 2018, p. 6). Russell (2008) argues that the notion of „time” is especially significant for the omega generation as people seek for meaning and integrity in the past and the present and “use this knowledge to look to the future for a time when they will no longer be living” (p. 206).

The influence of health-related factors

Although later life is generally associated with declining cognitive abilities, the research on the ageing processes carried out in the last decades shows that age-related declines in cognitive abilities may be controlled and significantly reduced in later life (Desjardins and Warnke, 2012). The verbal ability remains stable and begins to decline only in later adulthood, and the crystallized intelligence may increase in level in the old age as a consequence of certain behavioral patterns and practice (Drag & Bieliauskas, 2009, as cited in Istance, 2015). The review of the literature shows that the possibilities for learning are influenced by the person's health (Hodkinson et al., 2008; Tam, 2016; Boulton-Lewis et al., 2017). Health issues are associated with obstacles to learning resulting from mental and physical deterioration (Boulton-Lewis et al., 2006). However, the decline in some functional and cognitive abilities, may not prevent older learners' abilities to learn and develop wisdom, knowledge and insights (Tam, 2016). Learning may be triggered by adapting to declining health (Withnall, 2017). The functional nature of the purposes or meanings of later life learning is related to health (Tam, 2016). Learning may become a preventive to maintain health (Boulton-Lewis et al., 2017). In terms of old age research, there may be a very specific subgroup of older public defined, e.g. focusing on healthy advanced elderly (Tam, 2016) or older people suffering from particular illnesses (Valente, 2005; Rager, 2006).

The aging personality-related factors: “the strengths of age and experience”

Self-confidence, self-esteem and self-efficacy are broadly explored in relation to later life learning as both the intervening circumstances or consequences of learning (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Russell, 2007; Hodkinson et al., 2008; Friebe & Schmidt-Hertha, 2013; Narushima et al., 2018). The concept of self-efficacy, as defined by Bandura (1997), is the “belief in one's capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Self-efficacy beliefs are centered on the self-regulation of thought processes, motivation, affective and physiological states, and control over actions (Bandura, 1997). Friebe and Schmidt-Hertha (2013) identified self-efficacy beliefs as a fundamental factor facilitating learning in later life. Their study showed a link between perceived control of action, attitudes about one's own behavior and later-life learning. Self-efficacy and strengths in learning are related to acceptance of ageing related limitations, and recognizing that learning is still possible (Purdie & Boulton-Lewis, 2003). Boulton-Lewis et al. (2006) study showed that the belief in the role of learning in keeping the mind active stimulated older adults to continue learning in later life. Learning is triggered or facilitated by changes “in a person's horizons for learning” – the possibilities for learning (Hodkinson et al., 2008, p. 180).

Personal identity is generally defined as a complex of an individual's characteristics which define their self-image and the world outlook incorporating specific personality traits, self-esteem and internal locus of control (Schuller et al., 2002). The person's dispositions (Merriam & Mohamad, 2000; Hodkinson et al., 2008) and view of themselves (Friebe & Schmidt-Hertha, 2013) influence the possibilities for learning. Later life learning may be guided by positive thinking, being open to new ideas (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003), being tolerant of and helping others (Merriam & Mohamad, 2000), and leading a good life (Merriam & Mohamad, 2000; Friebe & Schmidt-Hertha, 2013). Russell (2007) proposes that older adults believe in the worth of learning in later life as providing opportunity for participation in one's life-world. The motivation to engage in learning may be influenced by older adults' self-perception (Friebe & Schmidt-Hertha,

2013). Acceptance of their present situation with regard to the physical and mental age-related changes enables older people to continue to grow and develop by means of learning (Russel, 2007, p. 375) and facilitates learning (Friebe & Schmidt-Hertha, 2013).

Following Moody (Moody, 1986, as cited in Ardel, 2000, p. 773), later life learning should be based on „the strengths of age and experience”. Kotulak (1996, as cited in Pfahl, 2012) argues that older learners who may be defined as vital ageing adults demonstrate intellectual prowess which is influenced by a greater willingness to change, an ability to grasp new ideas quickly, active engagement in reading, travel, cultural events, education, clubs and professional associations, satisfaction with their accomplishment as well as some physical and mental health or social status related factors (Pfahl, 2012, p. 81). There is a large body of research showing that previous educational level and experience are significant predictors of participation in later life learning (Merriam et al., 2007). Older people come from different educational and career backgrounds, and they have had different pre-retirement learning trajectories. These circumstances affect transferability of skills and deployment of meta-competences. The individual is affected by situational and personal factors over the life course, including the time spent in educational institutions, the timing and circumstances of becoming post-work and the possibilities of subsequent involvement in learning (Withnall, 2006). Prior learning is identified as a factor affecting engagement with learning - being less-formally educated is identified as a factor negatively affecting learning in later life (Boulton-Lewis et al., 2006).

Ageing-related environmental influences

The significance of the aging-related factors as contextual influences on the learning environment is reflected in the later life learning opportunities. As pointed out by Biesta (2009), exploring the context of activity is not for adjusting to the context, but rather for establishing the “relationships between the actions and their consequences”, which evolve in the “transactional field” and the knowledge of it expresses possibilities (Biesta 2009, p. 9). Buffel et al. (2012) propose eight dimensions for the study of the social environment in the context of ageing: interpersonal relationships, going beyond the social support paradigm by recognizing the societal contribution of older people; social cohesion and diversity; sense of security and feelings of safety; the neighborhood as a learning space; a political conception of the social environment; mobility-related aspects; heterogeneity and inequality (p.18). In this theoretical framework the social environment is defined as “a dynamic, multidimensional, historically and spatially contextualized process” (p. 14).

There is extensive empirical evidence of the importance of social network for older people’s learning activity (Pinquart, 2002; Roberson & Merriam, 2005; Hodkinson et al., 2008; Moon, 2008; Schmidt-Hertha, 2013; Boulton-Lewis et al., 2017; Withnall, 2017). Social networks and the social environment affect learning in later life in the way they can stimulate learning related to tasks and challenges of everyday life (Schmidt-Hertha, 2013), provide stimulation from others to perform meaningful activities, and feeling needed by doing good for close people and feeling accepted (Pinquart, 2002, p. 107). Engagement in learning can be related to changed family circumstances (Withnall, 2017). In later life there is an increased risk of social isolation and depression due to the shrinking social support network combined with limited mobility. Moon’s (2008) study showed that learning in later life is influenced by ‘the late life-cycle issues of a dwindling social network’ (p. 2). Schmidt-Hertha’s study (2013) shows the importance of a wider social network – learning is related to interactions within the social environment, where other older people are chosen as a benchmark to

assess one's own learning and impacts motivation. Schmidt-Hertha (2013) provides a heuristic model of interrelation of motives and opportunities and their impact on the informal learning of older adults (p. 98). In this model there is a distinction between internal and external impulses to engage in later life learning – the internal stimuli are related to individual dispositions and experiences, and the external impulses are embedded in social networks and the social environment (p. 98).

The possibilities for learning are influenced by the learning culture the individual participates in (Hodkinson, 2008). In the learning situation, older adults create informal support networks with other older learners (Narushima et al., 2018). However, there may develop a tendency of an elderly subculture, which may provoke isolation and intergenerational separation (Luppi, 2009). Intergenerational environment may serve as a resource for informal learning providing economic, instrumental and emotional support (Thalhammer, 2012). The neighborhood is increasingly studied as a learning space focusing on the interconnections between education and social-cultural processes (Buffel et al., 2012). The dynamics between older adults and their social environment is a two-directional construct - individuals are not only shaped by exchanges with places; people also shape and create the environment in everyday (inter)action (Buffel et al., 2012, p. 20). Buffel et al. (2012) argue that wider purposes of learning including community development, political participation, improvement and change of people's lives are realized in community settings. Informal learning in community settings may be facilitated by means of history and culture (Vanwig & Notten, 2004, as cited in Buffel et al., 2012). Carragher and Golding (2016) in their study of older men's engagement in informal learning in men's sheds in Ireland confirmed that men's sheds produce favorable environment for later life learning which encourages sharing skills, knowledge, wisdom and facilitates older men's active engagement in constructing masculine behaviors and identities for later life. Friebe and Schmidt-Hertha (2013) argue that evaluation of expectancies of the social environment is a fundamental factor facilitating learning in later life.

Fisher (1998) points to the impact of contextual and environmental factors on older adults' learning to meet their ageing-related challenges. Hodkinson and colleagues (2008) argue that learning is an integral part of the retirement process, and is embedded in the "interrelationships between the changing person and his or her learning situation" (Hodkinson et al., 2008, p. 179). With age older adults may develop a more reflective and observational attitude to the learning environment (Truluck & Courtenay, 1999). New opportunities for learning and development may be created from changes in life experience (Jarvis, 2001) or transitions in an individual's life (Roberson & Merriam, 2005) or aging-related loss (Roberson & Merriam, 2005; Boulton-Lewis et al., 2017). Three main kinds of loss (health, job, partner) as life changes have been identified as motivators in learning to cope with loss or having a negative effect on learning (Roberson & Merriam, 2005).

Attributes

Learning motivation based on older learner developmental tasks and needs

There is a large body of research focusing on the justification of later life learning based on the meaning of learning from the geragogical perspective and the needs associated with the life stage. Russel (2008) argues for „a link between learning in later life and the ontological and existential search for meaning" (p. 206). From the perspective of the meaning and function of learning, the learning motivation is associated with the developmental tasks: adjustment to new social roles and living arrangements (Havighurst, 1972), enhancement of adaptation to the new needs and changing lifestyle (Tyler, 1988, as cited in Luppi, 2009), adjustment to aging changes (Findsen & Formosa,

2011). The retirement process becomes a process of learning due to the adaptation to retirement-related changes: new situations, new opportunities, new constraints. Learning is also triggered by the need to deal with changes to the self and changes to the situation (Hodkinson et al., 2008, p. 181). The change of lifestyle is related to the change of roles work and family-wise and therefore using learning opportunities for constructing new activities for continued participation in new roles, especially in the group and wider community contexts. Wolf (1998) suggests that self-sufficiency as an ability to remain in control of one's life is a prime motivation (p. 7). Chaffin and Harlow (2005) state that the need to control their own fate and environment motivates ageing individuals to learn computer technology motivated by the need to control their own fate and environment. The motivation for engagement in learning is embedded in the "changing nature of the world and a desire to continue to live their lives authentically, as participants and not spectators" (Russel, 2007, p. 363). Narushima and colleagues (2018) found that the meaning of learning include assurance for the dissonant body and mind, a circle of camaraderie, a balance between physical and mental spaces, integration of past, present and future, and goes beyond knowledge and skills. Continuous learning works as a therapeutic self-help mechanism to counterbalance changes in their life-worlds (Narushima et al., 2018).

The theoretical perspective of learning needs becomes the centre of older person learning (Wolf, 1998), which is mostly self-directed. McClusky (1974, as cited in Tam, 2016) identified five types of needs including coping, expressive, contributing, influence and transcendence. In Tam's (2016) interpretation of the aforementioned needs, coping is related to managing aging-caused changes; expressive needs are linked with engagement in meaningful developmental activities; contributing needs are related to doing something for others; influence needs are related to making positive influence on the environment; transcendence is identified with going beyond aging-caused limitations. The focus on transcendence has also been proposed by other scholars (Jarvis, 1992; Moody, 1986). Lamb and Brady (2005) pointed out opportunities for enhancing self-esteem and opportunities for spiritual renewal as major motivation factors. Cognitive interest and social stimulation as major motivation factors are also proposed by Kim and Merriam (2004). Tam (2016) suggests that the purpose of later life learning is to increase knowledge and to keep up to date with society. The older adult learning scholarship apply the dichotomy of motivation as expressive or instrumental (O'Connor, 1987 as cited in Tam, 2016, p. 571), which associates expressive motivation with development and social relations whereas instrumental motivation is related to work and skills. For example, Serrat and colleagues (2016) identified that instrumental learning through political participation includes an "enhanced ability to work with other people, acquisition of practical and technical skills, and improved communication skills and confidence" (p. 178). Boulton-Lewis et al. (2006) study of active aging in Australia which focused on the place of learning in the aging process showed that older adults are interested in learning new things and new skills including new technology, new activities and leisure interests. Older people are also open to new learning experiences rather than reiteration of familiar prior learning (Boulton-Lewis, et al., 2006; Kim, Merriam, 2004). Some studies found that elders are more likely to be motivated by expressive rather than instrumental reasons (Tam, 2016). There has been some research evidence (Tornstam, 2011; Talmage et al., 2015) indicating that older adults give priority for „breadth” and „depth” of learning experiences on global, social or philosophy issues before skill-based experiences. Older learners adopt selective approach to learning useful and suitable things (Tam, 2016) and place importance on meaningful activities (Carragher & Golding, 2016). Grover et al., (2017) have classified older adult

motivation for participating in post-retirement learning activities into cognitive interest, personal growth and satisfaction, and social relationships. Merriam and Mohamad (2000) point out to the communal nature of learning motivation - engagement in learning is motivated by a desire to benefit others and for improving community (through being good role models, through volunteering, and through engaging in social-action agendas). Purdie and Boulton- Lewis (2003) studied older adults learning needs in Australia, and identified that learning needs included technical skills and knowledge, health issues, leisure and entertainment, and life issues.

Learning motivation in later life may change with aging due to the decreased intensity of needs, time constraints, or change of the motivation subject (Schaie & Willis, 2002). Principi et al. (2016) in their study of the impact of older volunteer resources on their motivation assert that with increasing age the motivation for learning new things decreases whereas motivation for pursuing emotional goals increases, which is explained by the socio-emotional selectivity theory (Fung et al., 2001, as cited in Principi et al., 2016, p. 155). They also argue that ageing is associated with a declining desire for personal growth (p. 155). However, older persons' "frustration, anxiety, and fear about their changing physical abilities can also drive them to make a conscious effort to keep learning" (Narushima et al., 2018, p. 4). In the face of physical constraints, learning helps older adults "expand and broaden their mental space" (Narushima et al., 2018, p. 6). Withnall (2017) in her study of learning to live with chronic illness in later life argues that a lengthy learning process is involved in empowering oneself to self-manage one's condition and encompasses identifying, accessing and using the necessary resources. MacKean and Abbott-Chapman (2011) point to learning skills appropriate to the phase of life and empowering older people to help themselves. Tyler et al. (2018) in a study of older adults effectively using Internet technologies found that increase in the level of self-efficacy results in increased motivation, which prompts sustained digital participation. Desire to learn depends on individual motivation levels (Boulton-Lewis et al., 2017). Purdie and Boulton-Lewis (2003) in their study of older adults in Australia identified physical problems, cognitive factors, self-matters, and social factors having effect on motivation. They argue that most barriers to later life learning are attributed to aging - reduced mobility, illness, degenerating sight and hearing, worries about safety, feelings of vulnerability, and dependence on someone else to arrange matters may prevent older adults' engagement in learning (Purdie & Boulton- Lewis, 2003). Purdie and Boulton-Lewis (2003) point out that the largest number of barriers to learning are related to cognitive and self-matters (attitude to learning not being necessary, not being in the mood, and laziness).

The interconnection between learning and maintaining agency

The emancipatory nature of the purpose of learning in later life has been widely discussed in scholar literature. Finsden and Formosa (2011) identify continued lifelong learning as moral right and empowerment and emancipation for personal growth as primary roles of later life learning. A large body of scholarship looks into the ways how learning contributes to improved status and self-confidence (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Russell, 2005, 2007, 2008; Chaffin & Harlow, 2005). Merriam and Mohamad (2000) argue that the role older people play as mentors, advisers, and wise elders in the community inspires them to continue learning - being elderly and experienced brings a favored position and status in their family and community (Merriam & Mohamad, 2000, p. 15). However, ageism as a systematic stereotyping and negative view of older people (Palmore, 2001 as cited in Chaffin and Harlow, 2005, p. 303) discriminating older adults in respect to aging-related limitations may negatively affect their status. Chaffin and Harlow (2005)

warn against the danger of the elderly people internalizing this image of deterioration of their human potential. If adopted as a lens through which both society and the older people view themselves, the ageist perspective prevents the realization of positive potential and further learning of older people (Purdie & Boulton-Lewis, 2003). As pointed out by Russell (2005), later-life learners do “not dwell on present deficiencies or languish in them” (p. 244). Russell’s study (2005) established the significance of maintaining a sense of self in later life learning through negotiating one’s place in a changing environment. Older learners seek for “continuity, inclusion, and integrity in their relations with others and prefer autonomy to dependence” (Russell, 2008, p. 221). Russell (2007) proposes that motivation for learning is embedded in the belief that learning (computer skills and knowledge) helps older persons to avoid being “ignored and relegated to a peripheral position as observers in their life-world” (p. 363). Learning may provide space for older adults „authenticating the self” – active participation is combined with “the need to engage in activities that reflect the authentic self” (Russell, 2008, p. 221). Russell (2007) suggests that in order to grow and develop, older people use „maturity, wisdom and pragmatics to reflect on the tension of self-development versus finitude (Moody, 1985) to be able to take control of their actions (locus of control) and to move on (agency)” (Russell, 2007, p. 375). Chaffin and Harlow (2005) state that the use of computer skills and the Internet give the ageing individuals control over the threat of social isolation which affects their physical and psychological well-being. The personal learning environment, which is defined as technology used for learning (Tyler et al., 2018) is the “contextual environment in which self-efficacy and digital competence is learnt and enacted” (Tyler et al., 2018, p. 330). “Learning in later life becomes an activity worth engaging in for its own sake as process as well as an end in itself” (Narushima et al., 2018, p. 8). This engagement becomes generative in a cyclic way – the more learners learn, the more they want to learn (Russell, 2008).

The multidimensionality and integrated nature of the learning process

The desire for learning and personal growth continues in later life as part of a lifelong process (Narushima, 2005). For researching the nature of later life learning, the mode of learning becomes of significance (Hodkinson et al., 2008). There is extensive scholarship showing that a large part of older adult learning is implemented through non-formal and informal mode of learning (Merriam & Bierema, 2014). Informal learning may be defined as “adaptive reorganization in a complex system” (Hutchins, 1995), or spontaneous, unstructured daily learning in the home or other settings, and through various media (Coombs, 1985, as cited in Merriam & Mohamad, 2000). The importance of informal learning as everyday learning was recognized by research in the 90s (Jarvis, 2001; Lave & Wenger, 1991). The findings of research showed that this type of learning is social and becomes part of later life context. In later life learning research, there has been established a relationship between active aging and informal learning (Schmidt-Hertha, 2013) with an older individual taking on responsibility for one’s own competence development in everyday life. As pointed out by Brink (2017), learning in older adulthood mostly relies on self-directed informal learning when individuals „source and package learning for themselves” and learning occurs through reciprocal and shared life experience embedded in social networks (p. 23). Some of the learning that occurs through everyday activities may be implicit, as there is the absence of the individual’s awareness of the process of gaining knowledge or skills, or consciously adopting some learning strategies (Schugurensky, 2000).

As mentioned earlier in this study, literature review shows that there is no single definition of later life learning provided in the studies of informal learning. Schugurensky (2000) argues that the

understanding of later life learning goes beyond the boundaries of the formal typology of non-formal or informal learning as in their life stimulated learning pursuits an older person may combine and make use of the different opportunities provided by both levels of learning and develop a unique model of learning which suits the specific conditions of the older learner's life. The clear boundaries between the two types of learning may blur in an individual learning project and reflect generalized learning which transcends individual learning projects (Tough, 1979). A more synthesized view of adult learning has been proposed in the recent theoretical and methodological studies. Researchers have been interested in the intersection and merging between the different types of learning (Eraut, 2000) which would provide a comprehensive framework encompassing the multidimensionality of later life learning. The learning process may be characterized as an integrated system with physical, practical, emotional and cognitive elements (Hodkinson et al., 2008), in which "body, mind, and emotion function in the interaction among context, community, cognitive reflection, somatic reflection and time" (Pfahl, 2012, p. 70). Informal learning also encompasses the aspect of change, which is central to the paradigm of learning as becoming (Wenger, 1998) – the concept related to the duality of the nature of learning as acquisition or becoming. Learning as acquisition, which used to be accepted as a standard paradigm of learning, is based on cognitive abilities and is about acquiring knowledge and skills in formal educational settings. Learning as becoming is based on the paradigm of embodied learning, which encompasses physical, cognitive, emotional and practical aspects (Beckett & Hager, 2002; Hodkinson et al., 2008; Narushima et al., 2018). "*I learn, therefore I am*" is the manifestation of the essential meaning of lifelong learning for older adults in Narushima and colleagues' study (2018) – "to keep learning is almost a synonym for to keep living (*being, becoming, belonging*)" (p. 8). The process of becoming involves self-reflection, identity modification or sustaining identity in new circumstances (Hodkinson et al., 2008, p. 181). As pointed out by Hodkinson and colleagues (2008), learning as becoming is about people „constantly undergoing a process of personal construction and reconstruction" (p. 179). This is characteristic of learning through retirement, which may become a process of an individual learning to see themselves as a retired person and use the learning process for adapting to the new life circumstances (Hodkinson et al., 2008). Learning as becoming can be linear and developmental, or occur as "a series of disconnected multiple experiences involving changes to employment, family, and leisure" (p. 181).

Learning in later life is also viewed as a transformative process, in which the older learner undergoes a process of change through reflective thinking searching for the meaning in the context of later life (Mezirow, 1991). Jarvis (2012) describes learning as the combination of processes involving physical and mental experiences of social situations, which consequently transform their content at the cognitive, emotive and practical levels and integrate it in the individual's biography resulting in the personal change. Moody (1986, as cited in Ardel, 2000, p. 781) argues that the task of later life learning is embedded in the „transformative process that accompanies the development of wisdom" rather than „acquisition of more intellectual or theoretical knowledge". Transformative learning is a fluid and oscillatory process shaped by biographical and life stage developmental contexts (Moon, 2008) and includes the components of reflection, change in perspectives, and new behaviors. Transformative learning is influenced by "relevant learning from earlier life experiences and the late life-cycle issues (Moon, 2008). Moon (2008) argues that transformative learning in later life is shaped by "proximity to personal mortality" (p. 2). In his research on older adults' transformative learning through bereavement, Moon (2008) found out that bereaved older adults' learning resulted in transformation toward a greater consciousness of death issues, reprioritization of

goals and activities, and re-evaluation of intra-/inter-personal relationships. Learning as construction of meaning in later life involves perspective transformation by older persons (Malec, 2012).

Golding's study (2011) of older men's informal learning in community settings in Australia shows the importance of situated social learning, which is embedded in informal sharing of hands-on skills from older men's work lives, and enhancement of communication contributes to learning. MacKean and Abbott-Chapman (2011) suggest that communities of "leisure activities" provide opportunities for older learners to use and share one's skills and experience, and build self-efficacy and resilience (p. 243). Serrat and colleagues (2016) found that social learning from participation in political organizations represents learning about the value of community and relationships. Social learning from participation includes "the ability to listen to and respect others' opinions, a sense of solidarity with and awareness of others, recognition of the importance of social harmony, appreciation for the companionship of others, and integration into the community" (p. 176).

Consequences

The life review and integrity

The idea of enhancing links with the learner's personal story throughout the entire lifespan is emphasized in a large body of literature following the psycho-social paradigm on later life education and learning. Reflection and contemplation of the past as "life review" (Butler, 1963) is associated with continued spiritual development and transcendence. Development of transcendence is also associated with reflection and contemplation of the meaning of one's later life (Formosa, 2011). Reflection on one's present life and life review may help an older individual to achieve integrity of the self. Russell (2008) suggests that older people put their learning into the context of a whole life and continually seek to maintaining the integrity of the self and use "knowledge of the self and their whole life to reflect and to stand back" (p. 213). The reflection and life review may take place in an unstructured way and lead to individual insight and self-understanding (Withnall, 2006). As pointed out by Russell (2008), older learners use reflection „to reconfigure and reconstitute time, to maintain integrity, and to have a sense of who they are" (p. 221). Learning helps older adults review their life by reproducing and preserving some memories in their work (Narushima et al., 2018, p. 6). Ardel (2000) proposes that old age is the time when a person has an opportunity to pursue the learning goals which for some reasons were not possible at earlier stages. Those goals may include "a reflective mode of thinking, contemplating the meaning of life, coming to terms with one's past, the quest for self-fulfillment and spiritual development" (Ardelt, 2000, p. 772). Reflection is part of learning as construction of meaning by older persons (Malec, 2012). Development of the review strategy as a consequence of learning may become a foundation for later life learning (Luppi, 2009).

The individual and social nature of learning outcomes

Contemporary older adult learning paradigm incorporates the duality of adult learning benefits for the individual and the wider society. Very often the researchers of older adult learning adopt the neoliberal approach (Rubinstein et al., 2015) or the three capitals framework (Schuller et al., 2004) to learning emphasizing the benefits of the learning outcomes to the individual learner, and to the community or society in general. The *Three capitals* framework applied to the study of adult learning in different stages of life looks into how learning affects the learners' health and well-being, family life and engagement in civic activity at an individual and collective level (Schuller et al., 2002). From the social capital perspective, older adult engagement in informal learning activities promotes

an active lifestyle and benefits community through older adults contributing their life experience, expertise and service to community well-being (Merriam & Kee, 2014). Schuller et al. (2002) in their research took a holistic approach and looked into the interactive effects of adult learning on social cohesion, citizenship, active ageing and health. Learning may help to sustain and strengthen relationships within and across generations, improve communication and mutual respect (Schuller et al., 2002). Schuller et al. (2002) have developed a matrix classifying the effects of learning where they argue for a conservation (or sustaining) effect of adult learning when it prevents decay or collapse. The sustaining effect may go unrecognized as it often poses the issues of measurement or taking-for-grantedness. Learning may contribute to the person's ability to sustain their state of well-being or health, and enable them to „continue to live fulfilling and useful lives” (p. 13). At the community level learning may contribute to sustaining the social fabric, which refers to socialization effects and creating a favorable collective environment which sustains values (p. 13). Some studies on the relationship between older adults' well-being and participation in learning found that informal learning can enhance self-assessed well-being (MacKean & Abbott-Chapman, 2011; Jenkins & Mostafa, 2015). A considerable body of research has demonstrated the positive effects of learning on health, self-satisfaction, coping abilities, confidence and self-concept (Boulton-Lewis, 2010; Tam et al., 2017). The other effects of learning reported by research include social involvement and health improvement (Dench & Regan, 2000); increased intellectual power, better mental function, or prevention of memory decline (Withnall, 2000), continued verbal growth (Wolf, 2009). Narushima and colleagues (2018) suggest that continuous practice of learning may impact the well-being and independent living of older learners and work as a therapeutic self-help mechanism to counterbalance changes in older adults' life worlds. Change brought by learning may be defined as “adaptive reorganization in a complex system” (Hutchins, 1995), and may entail changing participation in learning, identity change, or change in embodied skills (Bransford et al., 2005). Clifton (2009, as cited in Russell, 2011) argues that in the changing social and cultural context older adults need to learn the skills to be able to manage their lives in the environment of modern complex society. However, Eraut (2000) notes the interconnectivity (interconnections) of learning outcomes, which go beyond individual skills, and produce personal and social benefits.

Self-confidence, self-esteem and self-efficacy are associated with the consequences of later life learning (Merriam & Mohamad, 2000; Purdie & Boulton-Lewis, 2003; Russell, 2007; Hodkinson et al., 2008; Friebe & Schmidt-Hertha, 2013; Narushima et al., 2018). Growth in self-confidence is the most fundamental learning outcome (Schuller et al., 2002, p. 14). A large body of research has established a positive relationship between learning and productive aging (Ardelt, 2000, Withnall, 2000; Boulton-Lewis, 2010). Narushima et al. (2018) suggest that the outcomes of later life learning include not only improved knowledge and skills, but also acquisition and maintenance of positive attitudes and “an improved sense of self” in terms of self-esteem and confidence that learning generates (p. 7). Learning may enable older people to follow technological advances, enhance self-reliance, self-sufficiency and coping strategies (Ardelt, 2000). Chen (2016) argues that volunteering as a form of informal learning provides a holistic approach to successful ageing including physical, psychological, social and spiritual dimensions. Learning through volunteering facilitates successful aging by establishing a substantial and expanding life, building and improving relationships, enhancing positive changes and self-evaluation, promoting health, triggering treasures and preparation for the rest of life (Chen, 2016, p. 227). In Chen's study (2007) older participants learned and refined knowledge and skills and developed wisdom through volunteering. The interpersonal

skills they learned influenced their late adulthood by building and improving relationships, understanding intergenerational differences (p. 224). Engagement in informal learning has a positive impact on life transitions (Carragher and Golding, 2015) and helps to “learn strategies for successful adaptation to the new life phase” (MacKean & Abbott-Chapman, 2011, p. 241).

Summing-up. The literature review allowed me to identify the characteristics of later life learning which combine the factors affecting later life learning (antecedents), the nature of the learning process (attributes) and the impact of learning on the older person’s life (consequences) (see Table 1). The factors affecting later life learning include the time factors, health-related factors, the aging personality-related factors, and aging-related environmental influences. The dimension of the meaning of time in later life learning represents the time factors as the context of learning. The uniqueness of the life period is associated with integration of past, present, and future, the absence of time constraints on present learning opportunities, and repositioning the goals of growth with awareness of the finitude of the future. The influence of health-related factors on the possibilities for learning may be associated with either the obstacles to learning due to the decline in some functional and cognitive abilities, or impetus for learning reflected in the individuals’ efforts to maintain their health. The main learning dimensions related to learning include control of declining cognitive abilities, the influence of the person’s poor health on the possibilities for learning and learning triggered by adapting to declining health. The dimension of the aging personality-related factors includes the older learners’ self-confidence, self-esteem and self-efficacy as intervening circumstances, the person’s dispositions - positive thinking, being open to new ideas, being tolerant of and helping others, acceptance of age-related changes and limitations, and previous educational level and learning experience. The aging-related environmental influences are associated with the stimulation for learning from social environment, supportive learning cultures, and aging-related challenges as motivators or negative influences on learning. The nature of the later life learning process is represented by the dimensions of the learning motivation being based on older learner developmental tasks and needs, the interconnection between learning and maintaining agency, and the multidimensionality and integrated nature of the learning process. The learning motivation includes search for meaning, adjustment to aging-related changes, remaining in control of one’s life, personal growth, social stimulation, and instrumental reasons. The dimension of interconnection between learning and maintaining agency is associated with empowerment and emancipation as primary roles of learning, improvement of the social status and self-efficacy. The multidimensionality and integrated nature of the learning process is reflected by prevalence of informal mode of learning, the relationship between active aging and informal learning, merging different types of learning, development of a unique model of learning in response to the specific conditions of the older learner’s life, learning as becoming - an integrated system with physical, practical, emotional and cognitive elements, learning as a transformative process and situated social learning. The consequences of later life learning include the dimensions of the life review and integrity, and the individual and social nature of the learning outcomes. The dimension of the life review and integrity is associated with continued spiritual development and transcendence, achievement of self-integrity and development of review strategy. The individual and social nature of learning outcomes is reflected by interactive effects of learning at the individual and social levels, the sustaining effect on individual and community well-being, improvement of self-confidence, self-esteem and self-efficacy, and enhancement of self-reliance, self-sufficiency and coping strategies.

1.2 Conceptualization of self-directed learning in later life

This section of the present study is dedicated to the conceptualization of self-directed learning within the framework of educational theory and empirical research. For this aim state-of-the art review of self-directed learning and literature review and concept analysis of self-directed learning in older adulthood have been carried out. The reviews encompass selected literature aiming to acquire a thorough understanding of the concept and its relevance to the present study. The literature review starts with the foundational studies which have contributed to the development of the concept of self-directed learning and the models of self-direction in learning. With the aim of developing a framework to guide my research, I will then look into the three distinct domains of the usage of the term as a type of informal learning within the framework of adult education and learning, an educational theory and a personal quality of the learner. The exploration of the concept of self-directed learning in older adulthood follows with a (thematic synthesis enhanced) review of the most recent literature in the area of self-directed learning in later life. The section ends up with a discussion of the empirical literature and a working definition of self-directed learning of older adults. The literature review is based on the sample of 61 empirical and conceptual papers on self-directed learning selected from the EBSCOhost, ScienceDirect, and Taylor and Francis databases. All the issues of *The International Journal of Self-Directed Learning* were searched for the relevant articles. The key words for literature search included the terms of self-directed, self-help, autodidactic, non-taught, self-taught, self-regulated learning. The extensive body of scholarly literature on the issue of self-directed learning used for the analysis of the concept in the present study also includes some comprehensive reviews (Brockett & Hiemstra, 1991; Brockett et al., 2000; Hiemstra & Brockett, 2012; Candy, 1991; Ellinger, 2004; Caffarella & Merriam, 1999; Merriam & Caffarella, 1991; Merriam, 2001; Owen, 2002; Taylor 2007).

1.2.1 The theoretical framework of self-directed learning

The discussion of a theoretical framework for the analysis of the construct of self-directed learning is foundational to the development of a framework for the research on self-directed learning in later life. The goals of the literature review of self-directed learning are to disclose: (1) the theoretical construct of the concept of self-directed leaning; (2) the characteristics of self-directed learning; (3) the contemporary definition of self-directed learning.

1.2.1.1 Development of the theory of self-directed learning (theoretical construct of the concept)

Theoretical models of self-directed learning

In the past decades, self-directed learning has been among the most researched areas of adult learning and an influential adult learning concept. This theory manifests shifting from adult education to adult learning and can help to inform better understanding of the complexity of contemporary adult learning in the environment of fast technological and social change. The first presentation of the notion of self-directed learning goes back over five decades in Houle's (1961) *The Inquiring Mind*. However, the very concept of self-directed learning was introduced by Tough in 1967 as self-teaching

(Tough, 1971, 1979) in the form of adults' learning projects. In his work, Tough identified related learning episodes, fixed duration of learning and planning as the main elements of the self-directed learning process. The most commonly accepted and used definition stating that self-directed learning is a basic human competence – the ability to learn on one's own was provided by Knowles (1975). Knowles (1975) identified six elements in the self-directed learning process: individual's initiative in diagnosing the learning needs with or without the help of others, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18). However, later both Tough's and Knowles' conceptualizations were criticized for viewing learning as a linear progression (Caffarella & Merriam 1999). In further development of the theory, there was adopted an interactive process approach (Spear & Mocker, 1984; Candy, 1987). Spear and Mocker (1984) defined self-directed learning as consisting of three components: learning opportunities in the environment, past or new knowledge, and the learner's actions. Some researchers conceptualized self-directed learning as a personality construct from the learner autonomy perspective. For example, Brockett (1983) defined self-direction as a personal attribute - a disposition of the learner to seek out and engage in activities assuming responsibility for autonomously developing and designing one's learning. Candy (1987) pointed out that the scope of use of the term „self-direction" had been extended to three different phenomena, and referred to the domains of „personal autonomy" as a learner quality; „autodidaxy" as independent pursuit of learning, or „learner control" as a way of organizing instruction. He proposed the interpretative paradigm and a constructivist perspective for approaching the phenomenon of self-direction. Candy's (1991) model encompasses four elements: personal autonomy (personal attribute), self-management (ability to self-direct one's learning), learner control in the learning process and autodidaxy as an individual pursuit of learning opportunities. The personal and contextual perspectives are identified as essential elements in the construct and are associated with the learners' notions of their learning, the factors in the learning situation which facilitate or inhibit the learners' control over the learning situation, the learners' perceptions of the learning experiences and the change of self-concept as a learner (Candy, 1991). In the 1990s there were a few conceptual SDL models proposed following the interpretative constructivist paradigm (Brockett & Hiemstra, 1991; Grow, 1991; Danis, 1992; Garrison, 1997). Brockett and Hiemstra (1991) proposed the Personal Responsibility Model, which incorporated three dimensions – the process, the learner, and the social context. Later this model was altered developing the PRO-SDLS model comprising four factors: control, initiative, motivation and self-efficacy as a measure of self-direction (Stockdale & Brockett, 2010) and the 'Person, Process, Context' model (Hiemstra & Brocket, 2012). Brocket and Hiemstra (1991) point out to the distinction between self-directed learning (characteristics of the learning-teaching transaction), and learner self-direction (characteristics of the learner). They acknowledge that personal responsibility - learners assuming ownership for their own thoughts and actions - is the cornerstone of self-direction in learning and recognize that learner self-directedness occurs on a continuum with the learner developing a certain degree of willingness to accept responsibility for their learning. The learner progressing from dependency to self-direction through stages model was proposed by Grow (1991). The learner self-directedness in this model is viewed in the context of teacher-led process where the teacher helps prepare the learner to advance to higher stages. Danis (1992) provides a comprehensive framework consisting of five dimensions: learning strategies, phases, content, learner and context. Garrison (1997) proposed a conceptual model based on collaborative constructivist approach emphasizing learner assumed personal responsibility and

collaborative control. This comprehensive model comprises the contextual (self-management), cognitive (self-monitoring) and conative (motivational) dimensions, each of which contributes to learner self-directedness in the process of taking responsibility to construct personal meaning for learning outcomes (Garrison, 1997, p. 18).

In the first decades of the theory development (1960s to 1980s), there were two major approaches to/directions in the research of self-directed learning: (1) Self-directed learning as a learner-controlled process of learning; (2) self-directed learning as a personality construct. The models developed in the 1990s specified the context element, although they lacked a more explicit description of the role of context and the dynamics of the interaction between the context, the learner, and the process elements. In the following decade there was an emphasis on linking the individual and contextual perspectives in the research in adult education. The integrative approach to learning was advocated in scholarship as it allowed conceptualizing learning using a combination of two frames: “an awareness of individual learners and how they learn; and an understanding of how the context shapes learners, instructors, and the learning transaction itself” (Caffarella & Merriam, 1999, p. 5). The scholarship developed in the first decade of the 21st century (Roberson & Merriam, 2005; Valente, 2005; Song & Hill, 2007; Rager, 2009) proposed conceptual models for understanding SDL in specific learning contexts. The model of self-directed learning process of older, rural adults proposed by Roberson and Merriam (2005) includes an external or internal incentive to learn, interest in the topic or activity, accessing resources, systematic attention and time, making adjustments to fine-tune the learning, resolution or continued pursuit of the learning activity. Valente (2005) proposed a process model of SDL in the context of health care, which reflects the learning cycle as learner initiated and moving forward. The process starts with a health event, which acts as an impetus to move individuals through the cycle of learning. The main stages of the process include acquiring and assessing information, choosing treatment(s), monitoring and reflecting on the result of treatment interventions, and managing adjustments in their life style and treatment(s)” (p. 112). During the process of learning, the learner moves forward into the cycle of learning and then typically moves back to collaborate with their health care professional for additional information, when “learning occurs continuously as health events emerge” (p. 112). Song and Hill (2007) proposed a Conceptual Model for Understanding SDL in Online Environments. The model encompasses three dimensions – personal attributes, processes and context. Personal attributes include the learners’ motivation, resource use and robust cognitive strategies. The processes refer to autonomous learning which is manifested in the processes of planning, monitoring and evaluating. The model presents the interaction between the person and the process elements. The context is focused on the dynamic interrelation between the environmental factors (resources, structure, the nature of tasks and support elements) and the learner self-direction. Rager (2009) presents an interactive Integrative model of self-directed learning that positions emotion in self-directed learning experience. The model was developed on the basis of research on self-directed learning of people facing a medical crisis. The model consists of five components: the learner, the context, content, process, and learning. Each component of the process contributes an emotional layer to the self-directed learning experience mediated through the individual learner. The model depicts the SDL learning process as cyclical and iterative. The process includes the triggering event, diagnosing learning needs, formulating goals, identification and selection of resources, learning strategies, evaluation, decision making, and action. The emotional weight of the learner’s past and present experience impacts the learning process. The

self-directed learner dimensions include the learner personality, abilities, attributes and motivation. Table 2 presents an overview of the conceptualization of self-directed learning.

Table 2. The theoretical development of the concept of self-directed learning

Author	Conceptualization of SDL (components of the construct proposed)
Tough (1971, 1979)	Self-teaching in the form of learning projects. Deliberate effort of the learner; acquisition of knowledge, skill or making change as goals (outcomes) of learning; related learning episodes; fixed duration; planning.
Knowles (1975)	A basic human competence – the ability to learn on one’s own. The process consists of six elements – learner initiative; diagnosing one’s learning needs; formulating learning goals; identifying resources; choosing and implementing appropriate learning strategies; evaluating learning outcomes.
Guglielmino (1977)	Readiness for self-directed learning. The Self-directed Learning Readiness Scale – an assessment instrument to show the learner’s self-perceived attitudes and skills to engage in self-directed learning. The readiness factors include openness to learning opportunities, self-concept, initiative and independence, responsibility, love of learning, creativity, future orientation, study and problem-solving skills.
Brockett (1983)	A personal attribute - a disposition of the learner to seek out and engage in activities assuming responsibility for autonomously developing and designing one’s learning (Brockett, 1983).
Spear and Mocker (1984)	An interactive process consisting of three components: learning opportunities in the environment, past or new knowledge, and the learner’s actions. The notion of the „organizing circumstance” as the directing force behind learning, which acts as a trigger for a learning episode, provides or dictates the structure, methods, resources and conditions for learning.
Candy (1991)	The concept of learner autonomy with respect to personal and contextual perspectives. Proposed the interpretative paradigm and a constructivist perspective for approaching the phenomenon of self-direction.
Merriam and Caffarella (1991, 1999)	Defined as a form of study where learners plan, carry out, and evaluate their own learning experiences.

Grow (1991)	An instructional model - staged self-directed learning model based on the level of the learner's autonomy which focuses on the learner progressing from dependency to self-direction through stages.
Danis (1992)	Provides a SDL framework consisting of five dimensions: learning strategies, phases, content, learner and context.
Brockett and Hiemstra (1991) Stockdale and Brockett (2010) Hiemstra and Brockett (2012)	The Personal Responsibility Model: learner self-direction is conceptualized as a personality construct (Brockett and Hiemstra, 1991). Distinction between self-directed learning (characteristics of the learning-teaching transaction), and learner self-direction (characteristics of the learner). The PRO-SDLS model (Stockdale and Brockett, 2010) comprises four factors: control, initiative, motivation and self-efficacy. The 'Person, Process, Context' model (Hiemstra and Brockett, 2012).
Garrison (1997)	A conceptual model based on collaborative constructivist approach, which integrates contextual (self-management), cognitive (self-monitoring) and conative (motivational) dimensions.
Roberson and Merriam, 2005	The SDL process of older, rural adults model includes an external or internal incentive to learn, interest in the topic or activity, accessing resources, systematic attention and time, making adjustments to fine-tune the learning, resolution or continued pursuit of the learning activity.
Valente, 2005	A process model of SDL in the context of health care. Learner initiated and moving forward through the learning cycle with health event as an impetus. The stages of the process include acquiring and assessing information, choosing treatment(s), monitoring and reflecting on the result of treatment interventions, and managing adjustments in the life style and treatment(s).
Song and Hill (2007)	Conceptual Model for Understanding SDL in Online Environments. The model encompasses three dimensions – personal attributes (learners' motivation, resource use and robust cognitive strategies), processes (planning, monitoring and evaluating) and context (dynamic interrelation between the environmental factors (resources, structure, the nature of tasks and support elements) and the learner self-direction).
Rager, 2009	An interactive Integrative model of self-directed learning that positions emotion in self-directed learning experience (self-

	directed learning of people facing a medical crisis). The model consists of five components: the learner, the context, content, process, and learning. Each component of the process contributes an emotional layer to the self-directed learning experience mediated through the individual learner.
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1.2.1.2 The main characteristics of self-directed learning

Following the framework proposed by Hiemstra and Brockett (2012), further analysis of the construct of self-directed learning is organized into three themes: the person (learner self-directedness), the learning process, and the context factors.

Learner self-directedness

There is a large volume of scholarly literature focused on the concept of learner autonomy within the framework of self-directed learning (Candy, 1991; Guglielmino, 1977; Brockett & Hiemstra, 1991; Stockdale & Brockett, 2010). Self-directed learning as a personal attribute (characteristic) entails the learner’s responsibility for autonomous learning activity (Stockdale & Brockett, 2010) and is defined as a disposition of the learner to seek out and engage in activities assuming responsibility for autonomously developing and designing one’s learning (Brockett, 1983). Guglielmino (1977) introduced the concept of readiness for self-directed learning and proposed the Self-directed Learning Readiness Scale as an assessment instrument to show the learner’s self-perceived attitudes and skills to engage in self-directed learning. The readiness factors include openness to learning opportunities, self-concept, initiative and independence, responsibility, love of learning, creativity, future orientation, study and problem-solving skills. However, there has been some criticism of reliability and validity of this instrument (Brockett & Hiemstra, 1991). Stockdale & Brockett (2010) proposed four factors including control, initiative, motivation and self-efficacy as a measure of self-direction.

Conceptualization of learner self-direction as a personality construct (Brockett and Hiemstra, 1991) encompasses individual's beliefs and attitudes that predispose one toward taking primary responsibility for their learning" (Stockdale & Brockett, 2010, p. 29), and personal values and beliefs, on which the learner builds their goals, plans the activity, makes and evaluates choices, and achieves the learning goals (Candy, 1991). Research on learner competences identified a variety of individual competences including determining one’s concept as a self-directed being, diagnosing learning needs and formulating objectives, identifying resources, and collecting and validating evidence of accomplishments (Knowles, 1975), personal autonomy and self-management (Candy, 1991). Other individual characteristics include creativity, critical reflection, enthusiasm, life experience, life satisfaction, motivation, previous education, resilience, and self-concept (Hiemstra & Brocket, 2012). Ellinger (2004) in a review of research on self-directed learning identified four factors of learner autonomous behavior: technical skills, familiarity with the subject matter, the sense of one’s learning competence and commitment to learning. Learner self-directedness occurs on a continuum with the learner developing a certain degree of willingness to accept responsibility for their learning (Stockdale & Brockett, 2010). Grow (1991) proposed a staged self-directed learning model based on

the level of the learner's autonomy which focuses on the learner progressing from dependency to self-direction through stages: dependent, interested, involved or self-directed with the teacher's roles changing respectively from authority/coach, to motivator/guide to facilitator to consultant/delegator. The premise of the model is that the teacher or trainer matches the learner's stage of self-direction. Adopting different teaching styles and approaches appropriate to the learner's degree of dependence or self-directedness, the teacher helps prepare the learner to advance to higher stages. The present (previous) knowledge/life experience, and pro-activeness of the learner are antecedents of self-directed learning and the learning outcomes are reflected in the internal and/or external change of the learner (Bartkevičienė, 2015).

The process of learning

The conceptualization of self-directed learning as a process is associated with three distinct aspects in self-directed learning - the nature of learning, nature of knowledge and the meaning of learning to the learner (Candy, 1991). The literature analysis shows that definitions of the process of self-directed learning may differ considerably. Tough (1971, 1979) described learning as related learning episodes with fixed duration. The linear process defined by Knowles (1975) includes a sequence of elements: diagnosing the learning needs with or without the help of others, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (p. 18). The goals of learning are associated with acquisition of knowledge, skill or making change (Tough (1971, 1979). The learner takes responsibility to construct personal meaning for learning outcomes (Garrison, 1997). However, the learner may readjust their objectives depending on changing circumstances (Candy, 1991). Although it is generally intentional, self-directed learning may not be highly structured (Marsick & Watkins, 2001). Spear and Mocker (1984) argue that the learning process is determined by an „organizing circumstance” and the triggering event as an impetus for learning. Spear and Mocker (1984) proposed the concept of „learning episode” to define the integrative process consisting of structure, methods, resources and conditions for learning. Learning sequences progress not necessarily in linear fashion, but rather as the circumstances created during one episode become the circumstances for the next step in the process. The most powerful determinants lie within the circumstance which tend to structure or organize the learning process. The learning process may be organized as a single event as anticipated learning, single event as unanticipated learning, series of events as related learning, series of events as unrelated learning (Spear & Mocker, 1984). The dimension of planning has been subject to a variety of interpretation among scholars ranging from learning as a planned activity (Tough, 1971; Knowles, 1975; Merriam & Caffarella, 1991) to no pre-planning (Spear & Mocker, 1984; Marsick & Watkins, 2001). Hiemstra's study of older people's learning (1975, as cited in Valente, 2005) established that older persons were active learners and most of their learning activities were self-planned. However, pre-planning may be subject to some alteration depending on changing circumstances (Candy, 1991). Learner responsibility assumed in the process of learning becomes a key dimension, which may be expressed by deliberate effort of the learner (Tough (1971, 1979), individual's initiative (Knowles, 1975), the learner planning, carrying out and evaluating their learning (Merriam & Caffarella, 1991). The value and effectiveness of the self-directed learning are facilitated by reflective practice (Guglielmino & Guglielmino, 1991, as cited in Valente, 2005). Boyer et al. (2013) in a meta-analytic review of SDL in the context of

workplace learning identified the following characteristics of SDL: internal locus of control, motivation, support, and self-efficacy.

The dimension of context

The learner autonomy in self-directed learning is linked to the context in which it develops (Spear & Mocker, 1984; Candy, 1991; Brockett & Hiemstra, 1991; Merriam et al., 2007). In Spear and Mocker's model (1984) the context dimension is represented by the concept of the „organizing circumstance” - the factors which underlie self-directed learning beyond the consciousness of the learner. The organizing circumstance is defined as the directing force behind learning which acts as a trigger for a learning episode, provides or dictates the structure, methods, resources and conditions for learning. There were four types of environmental circumstances identified which determined different types of the learning process. A unique learning experience is the result of learning opportunities, personal knowledge and chance situations (Spear and Mocker, 1984). Hiemstra and Brockett (2012) emphasize the importance of context in understanding self-directed learning and point to the influence of social context on both the learner and the learning process in a dynamic interrelationship between the three elements of self-directed learning. The social context includes the environmental and sociopolitical dimensions such as culture, power, learning environment, gender etc. The balance of the person, process and context ensure the effectiveness of self-directed learning (Hiemstra & Brockett, 2012, p. 159). Contextual factors contribute to the learner autonomy in self-directed learning (Merriam et al., 2007). As pointed out by Hiemstra and Brockett (2012), the focus on the individual learner without considering the impact of the context in which such learning takes place has been “one of the most contested aspects of self-directed learning over the years and there has been “relatively little work at the intersection of the learner and context elements” (p. 159). The interrelation of the contextual and process dimensions may be well disclosed when defining self-directed learning as a contextual process with attributes of the internal and external motives, empowerment, acting and reflection (Bartkevičienė, 2015). As a type of informal learning, self-directed learning may be embedded in social contexts (Hiemstra & Brockett, 2012) as the natural opportunities in a person's life (Marsick & Watkins, 2001). Analysis of the social context provides insights into the learning environment influences on the practice of self-directed learning.

1.2.1.3 Contemporary definitions of self-directed learning

With the aim of developing the working definition for the purpose of my research, I have analyzed the contemporary theory of self-directed learning. Contemporary definitions of self-directed learning place this concept within the informal learning framework of adult education and learning as a distinct type of learning. Van Noy et al. (2016) define self-directed learning as a subtype of everyday informal learning when the learner takes the initiative and actively seeks learning opportunities or information on his/her own. It takes places outside educational institutions in the work, community or home locations, is learner led, learner organized and intentionally sought (Colley et al., 2003). The intentionality and active role or consciousness of the learner distinguish it from other types of informal learning - incidental learning and socialization/tacit learning (Schugurensky, 2000). The learner awareness of learning taking place is the distinguishing characteristic of self-directed learning as informal learning. Following the classification of the types of learning produced

by Livingstone (2001), as a subtype of informal learning, self-directed learning is assigned other characteristics of informal learning including intentionality, situational and practical knowledge, the primary agency being with the learner – the learner pursuing understanding, knowledge or skill without direct reliance on the teacher in any context outside an externally-organized curriculum (Livingstone, 2001). Schugurensky defines the term of „self-directed learning” (also „explicit informal learning” Livingstone (1999) as a result of deliberate learning projects (Schugurensky & Myers, 2008). Livingstone (2006) defines self-directed learning as a type of informal learning which is intentional or tacit, individual or collective, “without direct reliance on a teacher or externally organized curriculum” (p. 2). Following Livingstone’s (1999) definition, “people’s conscious identification of the activity as significant learning” distinguishes “explicit informal learning” from tacit learning through everyday activities. Other criteria include “the retrospective recognition of a new significant form of knowledge, understanding or skill acquired on one’s own initiative and also recognition of the process of acquisition” (p. 2). Livingstone recognizes that there is a “diffuse boundary” in the informal learning, where only self-reporting of learning by individuals allows to recognize discrete learning. Roberson (2004) argues that orientation towards goal accomplishment is a defining aspect of SDL, which distinguishes it from incidental learning. The attempts to define self-directed learning as a type of informal learning in contemporary taxonomies of learning manifest the complexity of the concept and fluidity of the contexts and blurred/ diffuse boundaries of the learning experiences. The working definition we adopt encompasses the multifaceted nature of the learning experience and views it as a continuum of learning experiences in terms of the degree of structuring and organization, consciousness and intentionality (Schugurensky, 2000; Duguid et al., 2013).

Summing-up

The analysis of major works of the theorists of self-directed learning and comprehensive reviews on self-directed learning revealed the multidimensionality of the concept, which has been subject to broad interpretation in its conceptualization in a variety of models, contexts, and related concepts. Since its introduction in adult learning scholarly literature by Tough in 1967, self-directed learning has been construed as a foundational multifaceted adult learning concept (Ellinger, 2004). The main components of the self-directed learning have been encompassed in a number of models developed in scholarship including linear models (Tough, 1971; Knowles, 1975) and interactive models (Spear & Mocker, 1984; Candy, 1991; Brockett & Hiemstra, 1991; Garrison, 1997; Hiemstra & Brockett, 2012). The models of self-directed learning based on interactive approach combine the dimensions of the organizing circumstances, learning opportunities in the learners’ environments, learner personality and the learning context (Spear & Mocker, 1984; Candy, 1991; Brockett & Hiemstra, 1991; Cavaliere, 1992; Garrison, 1997; Merriam et al., 2007). The models proposed in the scholarship on self-directed learning differ in the number of elements forming the self-directed learning episode and the way they are integrated, the self-directed learner, the learning process, and the context being the major elements. Since the introduction of the concept of self-directed learning, its development in the scholarship has been subject to adoption of two major perspectives – as a process, or as a personal attribute. The process perspective is focused on the learner autonomy in the learning process, whereas the personal attribute perspective is oriented to the characteristics of an autonomous learner. Caffarella and Merriam (1999) identified three directions in the self-directed learning research: (1) study of the self-directed learning goals; (2) study of the process of learning; (3) study of the learner self-directedness as a personal characteristic.

The theoretical analysis of self-directed learning presents considerable conceptual challenges due to the variety of contexts this term has been used in educational theory and research in over five decades. The analysis of a large body of self-directed learning scholarship shows the complexity of the research area and multidimensionality of the self-directed learning definition. Due to the complexity of the construct and a resulting ambiguity of the usage of the term, there have been attempts to systematize the usage of the concept in adult education theory and research. This resulted in identification of three distinct domains: a type of informal learning within the framework of adult education and learning; an educational theory; a personal quality of the learner (learner self-directedness). For the purposes of my research I adopt the interpretative paradigm and a constructivist perspective for approaching the phenomenon of self-direction proposed by Candy (1991). In this perspective self-directed learning is viewed as a type of learning where the learner takes the initiative and responsibility for carrying out and evaluating their own learning (Merriam & Caffarella, 1991, 1999). The learner is the central element characterized by the qualities which enable the process of self-directed learning in a specific context. The learning choices made by the learner are determined by both personal characteristics and the contextual factors.

In this study self-directed learning is conceptualized as intentional and conscious learning (Schugurensky, 2000) which takes place in particular social contexts. The definition adopted in this study defines self-directed learning as autodidactic (self-learning), i.e. independent learning (Candy, 1991) process in which the learner takes an active role and uses the competences needed to manage and implement one's learning (Brockett & Hiemstra, 1991; Caffarella & Merriam, 1999).

1.2.2 Understanding the concept of self-directed later life learning

Further development of the understanding of the research phenomenon requires to provide a clear theoretical foundation incorporating examination of the existing knowledge of the subject matter of the study and definition of the concepts. Therefore, there is a need to provide a clear conceptual basis consisting of well-defined concepts. The goals of the literature review/concept analysis of self-directed learning in later life are to identify: (1) the factors influencing older adult self-directed learning, (2) characteristics of the learning process specific to older adults; (3) the meaning of the learning outcomes to older adults.

The methods of literature review (Grant, Booth, 2009) and the evolutionary concept analysis (Rodgers, 2000) were employed for the theoretical analysis of the concept of self-directed learning in later adulthood. The literature review is based on the set of articles, books, and reviews on self-directed learning selected from the EBSCOhost, ScienceDirect, and Taylor and Francis databases. The selection of the sources for literature review was conducted in three steps. The key words for literature search included self-directed, self-help, autodidactic, non-taught, self-taught, self-regulated. An evolutionary approach to concept analysis (Rodgers, 2000) encompassing a comprehensive analysis of the use and a clear definition of the concept was employed to clarify the concept of self-directed learning in later adulthood. Concept analysis is a formal process of analysis which produces the defining characteristics or attributes of the concepts (Walker & Avant, 2005). The process of concept analysis follows a rigorous procedure. However, the outcome of the process should be considered tentative as the concept may evolve (Rodgers, 2000). The evolutionary concept analysis consists of six activities: (1) identifying the concept of interest and associated expressions; (2)

identifying and selecting the data collection setting and sample; (3) collecting the data in order to identify the attributes and the contextual basis of the concept including interdisciplinary, sociocultural and temporal (antecedent and consequential) variations; (4) Analyzing the data regarding the characteristics of the concept; (5) Identifying an exemplar of the concept (if appropriate); (6) Identifying implications, hypotheses, and implications for further development of the concept (Rodgers, 2000). For the purposes of this study the last two stages were considered irrelevant. The four steps were performed simultaneously in an iterative and flexible mode. The self-directed learning in later adulthood was identified as the concept of interest in this study. There are a variety of terms used in scholarship on self-directed learning including „self-help“, „autodidactic“, „autonomous“, „non-taught“, „self-taught“ (Colley et al., 2003), „self-teaching“ (Tough, 1971), „self-regulated“ (Van Noy et al., 2016), „personal“ (Kleiber, 1999), „autonomous“, „self-learning“, which causes some ambiguity in the use of the concept of self-directed learning. These were considered the surrogate terms which should be included in the concept analysis (Rodgers, 2000). When determining the range and scope of the literature to be selected as sources for concept analysis the setting and sample collection strategies are essential. The setting refers to the time span of the publications, and the type of literature. The sampling procedure must be based on clearly stated inclusion and exclusion criteria (Rodgers, 2000). Rodgers' approach to concept analysis is based on the collection and analysis of raw data. In this study, there was the literature about self-directed learning of older adults in the period of 1967 to 2020 reviewed and analyzed. The search and analysis was based on the full-text publications in English and Lithuanian available in EBSCO publishing, Taylor and Francis Online, Google Scholar and Lithuanian Academic e-Library (eLABa) databases (Science Direct, Web of Science, Dissertation Abstracts) using the key terms “self-directed learning” (or SDL, or “self directed learning” with no hyphen; self-learning; informal learning), and “later life” or “later adulthood” or “older adults” or “senior learner”, “seniors”, “third age”, “mature learners”, “old age”, “older persons”. At the first stage of the search there were 35 articles and books identified, which met the inclusion criteria. At the next stage there were 15 full-text articles selected containing the terms of “self-directed learning” and “later adulthood/older adults/later life/senior learner” in the title or abstract or full text. The aim of the search was to identify the data which relates to the attributes and contextual basis of the concept including sociocultural variations, antecedents and consequences (Rodgers, 2000). Identification of the attributes allows the researcher to define the concept, whereas identification of the context aspects allows to describe the settings and the perspectives of the use of the concept (Rodgers, 2000). The inductive thematic analysis technique was used when the texts were read and coded to generate a set of characteristics of the concept as salient themes. The themes were assigned to the categories of attributes, antecedents and consequences. The combination of analytical and integrative strategies allowed identification of the major themes relevant to the purposes of the review (Braun & Clarke, 2006). The following themes were identified as the attributes: aging needs-related motivation, learning as an individual (led) process, the specific nature of the process. The themes assigned to the “antecedents” category included access to personal and social resources and prior (learning) experience. The consequences category includes adaptation to ageing and development of self-directedness. As pointed out by Rodgers (2000), the outcome of the concept analysis is not definitive, and therefore he recommends to identify implications, hypotheses, and implications for further development of the concept as the last stage of the analytical process. Appendix 2 comprises the information on the empirical studies used for the concept analysis, which indicates the publication details (authors, and the years), the guiding theory, methodology descriptors

(data collection methods, data analysis methods, participant characteristics), the aims of the study, and the main findings. Table 3 presents an overview of the conceptual dimensions of self-directed later life learning.

Table 3. The conceptual dimensions of self-directed later-life learning

Conceptual dimensions	Characteristic features of dimensions
Antecedents	
Access to personal and social resources	Congruous context (Scott, 2006; Jin et al., 2019) Availability of intellectual resources (Fisher, 1998) Accessing information through social environment (Roberson, 2003; Rager, 2006; Schmidt-Hertha, 2013) Inadequacy of resources as barriers (Sears, 1989; Guglielmino et al., 2005; Hodkinson et al., 2008)
Learning experience accumulated during the lifespan	Prior learning (Sears, 1989; Roberson, 2004; Rager, 2006; Schmidt-Hertha, 2013) Formation of efficacious identity (Scott, 2006; Rager, 2006) Integration of the past experience (Spear & Mocker, 1984; Roberson, 2004)
Attributes	
The life-stage needs related motivation	Aging-related adjustments (Roberson, 2003) Gaining pertinent information (Roberson, 2005a; Jin et al., 2019) Controlling one's health (Rager, 2006; Valente, 2006) The influence of other people (Roberson, 2003; Valente, 2006) Expressive motivation (Sears, 1989; Kleiber, 1999; Roberson, 2004; Scott, 2006; Tam, 2013) Instrumental needs (Schmidt-Hertha, 2013)
Maintaining control over learning	Independence in learning (Lamdin, 1997; Lamdin & Fugate, 1997; Valente, 2005) Development of coping strategies (Ranzijn, 2002; Roberson, 2005b; Rager, 2006; Valente, 2006; Woodilla & Stork, 2016) Self-efficacy (Scott, 2006; Woodilla & Stork, 2016) Beliefs and values system (Rager, 2006; Scott, 2006; Schmidt-Hertha, 2013)
Balancing planning and adjustment	Planning one's learning (Sears, 1989; Lamdin & Fugate, 1997; Scott, 2006) Using strategies of sorts when faced with barriers (Scott, 2006) Learning beyond well-planned activities (Roberson, 2004; Grover et al., 2017) Making adjustments (Roberson, 2003; Guglielmino et al., 2005; Roberson & Merriam, 2005)

	Variable structure (Spear & Mocker, 1984; Roberson, 2004; Roberson & Merriam, 2005; Rager, 2006)
The ageing individuals' environment determined learning process	Reactive nature of learning (Spear & Mocker, 1984; Lamdin & Fugate, 1997; Kleiber, 1999; Roberson, 2004; Roberson & Merriam, 2005; Valente, 2005; Schmidt-Hertha, 2013) Collaborative nature of learning (Roberson, 2003; Lear, 2011) Contextual nature of learning (Lively, 2001; Roberson, 2003; Roberson & Merriam, 2005)
Consequences	
Promotion of older adults' quality of life	Adapting to ageing changes (Roberson, 2005b) Life satisfaction (Brockett 1985; Roberson, 2004) Preventing decline (Lamdin & Fugate, 1997) Increasing independence (Brockett, 1985; Valente, 2006, Lear, 2011) Positive change in social attitudes (Sears, 1989; Rager, 2006; Lear, 2011)
Development of empowering competence	Development of self-directedness (Sears, 1989; Roberson, 2003; Scott, 2006) Coping competence development (Roberson, 2003; Rager, 2006; Valente, 2006; Hodkinson et al., 2008; Tam, 2013; Woodilla & Stork, 2016) Personality development (Roberson, 2004; Hodkinson et al., 2008)

Antecedents

The importance of access to personal and social resources

The extent of the influence of context on the learner autonomy has been the focus of a large body of SDL research (Roberson, 2003; Scott, 2006; Merriam et al., 2007). Scott (2006) argues that congruous context is central to self-directed autonomy. Rural environment has been identified as a predominantly positive context for learning (Roberson, 2003, p. 2) providing a constructive atmosphere for learning, although with a possibility of some negative aspects related to lack of resources. Many older adults are able and highly self-directed learners with ample educational and intellectual resources available to them (Fisher, 1998, p. 32). Learning patterns indicate use of different information resources including peers, experts, media (Schmidt-Hertha, 2013). Rager (2006) found that the participants in her research – older men in a crisis situation - placed a great importance on learning from those people who had been through the experience and considered this “connecting with survivors” critical to their self-directed learning (p. 542). Her study shows that older people may identify multiple sources and evaluate them by employing “common sense, the reputation or credentials of sources, comparison of a survivor’s experience with the participant’s particular set of circumstances” (p. 455). Roberson and Merriam (2005) point out that accessing resources comes from the interest in the topic or activity, which begins with an incentive to learn. Jin et al. (2019) in a review based on numerous studies of the use of mobile devices for learning suggest that qualitative and quantitative findings show that older adults adopt mobile devices for learning as long as they find the learning relevant to their lives, and they have access to resources that help them. Availability of resources impacts possibilities for learning (Hodkinson et al., 2008). Inadequate resources are

associated with the barriers, interrupters and restarters for engagement in self-directed learning (Guglielmino et al., 2005). Learning may be affected by lack of time (Sears, 1989; Guglielmino et al., 2005), personal circumstances including poor health (Sears, 1989; Roberson, 2003; Guglielmino et al., 2005) or deficiency in learning competence - difficulty deciding what knowledge or skill to learn; difficulty remembering new material or information (Sears, 1989).

Learning experience accumulated during the lifespan as a personal resource

The importance of older adults' learning experience accumulated during the lifespan has been highlighted in numerous studies of self-directed later life learning (Sears, 1989). Spear and Mocker (1984) point to the relevance of prior learning through assembling "random bits of information, observations, or perceptions for no special purpose and whose retention over time is unexplained" to the current learning projects. They argue that those particular circumstances, "unique to individuals and their encounters with a variety of environments provide and account for the organizing of the learning episode (become an organizing factor) when the individual makes the decision to learn something in a related area (p. 11). The individual's past experiences "provide uniqueness to the current circumstances", and the person's "perception of those circumstances, and the manner in which the circumstances will contribute to the structure of the current learning project" (p. 11). Roberson (2004) also points to the "interplay of new and old information" in older adults organizing their learning (p. 212). Other studies have demonstrated that experience may be the modifying factor for the older learners' perceived competence (Scott, 2006) or self-efficacy beliefs (Bandura, 1997). Scott's study (2006) showed that the older learners' notion of competence originated from "congruous lifetime patterns of experiences and preferences, then transformed into efficacious identity with the pursuit experienced by the learner as compelling and personally right" (p. 11). Rager (2006) found that the men in her study who were less capable of conducting their self-directed learning were at a disadvantage in using learning as a means for coping (p. 457). The background variables which influence older adults' learning abilities and attitudes towards learning also include the level of education, vocational biographies, prior learning, and subjective perception of aging (Schmidt-Hertha, 2013).

Attributes

The life-stage needs related motivation

There is a large body of research findings in the justification of later life learning based on the needs associated with the life stage (Roberson, 2005b; Valente, 2006; Jin et al., 2019). Learning may be a response to life situation, and the particular life stage provides context for learning (Roberson & Merriam, 2005). For example, in Roberson's study (2005) older people were motivated to learn what was necessary to gain pertinent information at their stage in life (p. 231). Aging-related adjustments may become primary incentive for learning - older adults may use SDL to gain specific information to help with various adjustments (Roberson, 2003). Late life adjustments include: adjustment and adaptation to the loss of time by leaving a legacy to help the next generation; internal struggle to feel positive about one's life; facing degenerative changes in one's body; encountering loss (of respect, acquaintances, health) (Roberson, 2003). Roberson (2003) argues that each change and adjustment provide a unique opportunity for self-directed learning. Valente (2006) in her study of the role of self-directed learning in older adults' health care identified the following motivation factors: age-related issues, other people and potential benefits associated with controlling one's health. Rager (2006) in

her study of the use of self-directed learning by older men in a crisis situation found that “the desire to make informed treatment choices or to validate the recommendations of the doctors” was a strong motivation for learning (p. 453). Jin et al., (2019) in their review of the use of mobile devices as learning tools suggest that older adults engage in self-learning of health knowledge through use of mobile devices: qualitative studies show that older adults are motivated to participate in their health-related self-learning when they want to acquire specific health-related knowledge. Roberson and Merriam (2005) discriminate between an internal and external incentive for SDL in later life. An internal incentive originates from the person’s desire to learn something on their own, whereas an external incentive is associated with other people wanting the person to do something (p. 8). Roberson and Merriam (2005) propose that some event may also act as a catalyst, which may speed the learning process or motivate older adults to ‘learn on a deeper level” (p. 11).

Many studies on older adults’ learning motivation follow the motivation taxonomy distinguishing between expressive and instrumental motivation - expressive motivation as related to development and social relations – “learning for its own sake”, and instrumental motivation as related to work and skills (O’Connor, 1987). Sears (1989) in her study found that most self-directed learning projects were expressive in nature, and about a third of the projects were instrumental. Instrumental needs of self-directed learning include solving new tasks, and doing one’s activity in a more professional manner (Schmidt-Hertha, 2013). The expressive needs in later life may be linked with engagement in meaningful developmental activities (Tam, 2013), development of personal potential (Scott, 2006), learning for self-enrichment (Roberson, 2004), self-enjoyment and self-fulfillment (Sears, 1989), learning for leisure (Kleiber, 1999), arts and crafts, hobbies, music, and religion (Sears, 1989). Roberson (2003) in his study of self-directed older rural adults learning identified goal-directedness as a main characteristic of the self-directed learning process. The goal-directed aspect is seen in a commitment to accomplish a certain objective of learning. Roberson (2004) argues that orientation towards goal accomplishment is a defining aspect of SDL, which distinguishes it from incidental learning.

Maintaining control over learning

Numerous studies show that older adults are in control of and take responsibility for their learning (Sears, 1989; Brockett & Hiemstra, 1991; Kleiber, 1999; Grover et al., 2017). Valente (2005) argues that continued engagement in self-directed learning is strongly dependent on the older learner’s sense of control combined with successful learning experiences. The learner „ownership” of personal learning projects is demonstrated by the learner being „in control of what is learned, when the learning starts, where it goes, and when it is complete” (Lamdin, 1997, p. 118). Lamdin and Fugate (1997) argue that the self-directed learning projects of older adults are independent in the way that they are self-initiated, self-designed, and self-planned as a response to the learner’s needs and choice. Roberson (2005a) argues that the leisurely style of learning, which is characteristic of self-direction, may enable the individual to “have more control and power in their learning” (p. 231). Withnall (2017) in her autoethnographic study of learning to live with chronic illness in later life states that empowering oneself and establishing a degree of control over one’s chronic illness in later life involves “a degree of active planning and self-directed learning” (p. 479). Learning to self-manage a chronic illness can be a lengthy process when the individual learns to identify, access and use the necessary resources to manage one’s condition (Withnall, 2017).

To maintain the control of their learning, older learners develop certain strategies. Ranzijn (2002) points out that gerontology research has provided empirical evidence that older people are adept at “the ability to be self-directed and self-organizing” (p. 43). Roberson (2005a) points to evidence of later life learners utilizing the SOC strategies (Baltes & Baltes, 1990) in the process of “selecting and restricting one’s world, optimizing one’s situation, and compensating for loss” aiming at successful aging (Rowe and Kahn, 1997, p. 37). Woodilla and Stork (2016) in their case study of two older learners focus on the development of coping strategies to continue engagement in learning. Their autoethnographic research demonstrated that when faced with the challenge of coping with a new learning situation, mature learners have to develop a different approach to learning - search for an alternative mode to process and enact the learning expectations relying on one’s self-efficacy to learn. Self-efficacy is reflected in people’s beliefs about their capabilities contributing to motivation, setting the goals, and their efforts to accomplish the goals (Bandura, 1977). Scott’s (2006) research revealed the importance of efficacious beliefs coupled with congruous context and developing potential to learning competence and pursuit commitment (p. 12). Woodilla and Stork (2016) propose the concept of a “learning jolt” - emotional, physical, and cognitive experience which “signals a real breakdown in the ability to learn in familiar ways” (p. 48). The learning jolts challenge learners’ self-concept as learners and their competence as self-directed learners (Woodilla & Stork, 2016, p. 49). Valente (2006) argues that self-directed learning is enhanced by older learners establishing health behaviors to manage their specific health condition based on their level of physical and psychological strength, and a positive outlook on life. Rager (2006) also identifies the emotional component as a significant factor in self-directed learning of people facing health-related crisis presenting a challenge (p. 455). The reliance on a strong system of beliefs and values and invoking specific principles to be applied in given circumstances account for the older adults’ commitment to their pursuit (Scott, 2006). Older men in Rager’s (2006) study used an “ongoing analytical process” which included consideration of personal values (p. 455). The beliefs and values system as stimulating factor in self-directed learning may be expressed by civic engagement and caring about others, accepting everyday challenges, or interest in understanding one’s own life world (Schmidt-Hertha, 2013).

Balancing planning and adjustment

Lamdin and Fugate (1997) propose that the stages of the older adults self-directed learning include the trigger event, planning, finding resources, learning activity, and assessment, which may be completed in systematic or non-systematic ways. However, the linear progression through stages and planning dimensions have been subject to some contradictory interpretations in the scholarship on self-directed learning. There has been research evidence provided of both self-planned learning projects (Sears, 1989; Lamdin & Fugate, 1997; Scott, 2006) and older adults not establishing a plan for learning (Roberson, 2004; Grover et al., 2017). Spear and Mocker (1984) found that „self-directed learners rather than pre-planning their learning projects, tend to select from limited alternatives which occur fortuitously within their environment, and which structure their learning projects” (p. 4). The learners in Scott’s research (2006) identified strategies of sorts including a detailed plan or “invoking specific principles to be applied in given circumstances” (p. 11). The participants identified the following principles: ability to adapt, obstacles viewed as part of the process, and “progressive realization of worthwhile goals” (Scott, 2006, p. 11). The principles serve as a default position for commitment to the pursuit when faced with barriers. In Roberson’s (2004) study the participants’ learning „went beyond well-organized or well-planned activities” (p. 212) and included some

spontaneous activities out of their control. Roberson (2004) points to the role of „unplanned events in the self-planned process of self-directed learning” (p. 212). Roberson (2003) argues that self-directed learning process in later life is specific - characterized by systematic attention and adjustments. Roberson and Merriam (2005) argue that systematic attention and time given to the project or activity are essential for the learning process to continue. In the process of learning the older learner may make some adjustments in order to “fine-tune the learning” (p. 7). The adjustments occur in the form of trial and error (p. 10). Guglielmino et al. (2005) suggest that in order to meet their needs, learners show persistence and may redirect their learning projects. SDL in later life can be defined as “a continuum of learning from individual personal efforts to a lifestyle of learning” (Roberson, 2004, p. 214). This continuum approach suggests that learning may be shaped as short concentration on a specific goal or become a “lifelong pursuit of some topic” (p. 214). Rager (2006) suggests the term of “watchful waiting” indicating that the monitoring of one’s condition and the learning go alongside and are never over as an expression of the person’s continued quest for new information about their health problem (p. 456). Roberson and Merriam (2005) see SDL in later life as a “loosely woven and somewhat erratic process” (p. 11) consisting of a “loosely organized” series of events (p. 7). The variable structure of the learning process is represented by “contrasts of new and old information, serendipitous and determined events, and simple and complex topics” (Roberson, 2004, p. 210). Older adults organize learning in a way which incorporates the learning experience built up throughout one’s life from a variety of settings into meaningful constructs (Spear & Mocker, 1984).

The ageing individuals’ environment determined learning process

The reactive nature of learning has been identified in empirical research on self-directed learning in later life, which is reflected in solving certain problems and everyday tasks the older adults are confronted with (Schmidt-Hertha, 2013). The learning need may be triggered by an event (Spear & Mocker, 1984) or change in the individual’s environment, and take the form of a problem or an issue the individual needs to know about (Lamdin & Fugate, 1997) or may be initiated by health condition related changes (Valente, 2005). Self-directed learning may be associated with the actions which an individual takes in response to new developmental tasks (Kleiber, 1999). Self-directed learning context integrates changes in late life, related to time, family, and loss (Roberson & Merriam, 2005, p. 1). Lear (2011) in her study of rural third age women’s learning identified the experiential nature of most of the women’s learning, which occurs in everyday involvement and social interactions. Roberson (2003) points to the collaborative nature of learning which may mean incorporation of other people in their community in the learning, which shows “stretching beyond the name "self-directed", and “anchoring the personal learning in other people” (p. 209). Another person may act as a catalyst interspersed in the process of learning (Roberson, 2003, p. 2). However, older persons may not see it as learning initially (p. 177). Self-directed learning may reflect chance situations which happen as daily events of one’s life (Roberson, 2004). For example, older adults expand their usage of mobile devices in everyday activities through the exploratory self-directed learning process (Jin et al., 2019). A study of older adults’ learning patterns conducted by Lively (2001, as cited in Valente, 2005) showed the contextual nature of learning - older adults were engaged in many learning projects directly related to the context of their activity. The engagement in the learning process is accompanied by a personal interest (Roberson & Merriam, 2005) and manifested

as enjoyment, fun, and excitement (Roberson, 2003). Roberson (2005a) points out that SDL activities occur in leisure time, and are “a reflection of meaningful and personal choices” (p. 203).

Consequences

Promotion of older adults’ quality of life

Self-directed learning is a helping strategy to promote older people’s quality of life (Brockett, 1985, 1987; Fisher, 1986; Roberson, 2004). Roberson (2003) states that self-directed learning is utilized by older adults for adapting, adjusting and changing in order to age successfully. SDL activities help to adjust to change and lessen some of the negative aspects of aging (Roberson, 2004, p. 210). A connection between life satisfaction and self-directed learning has been demonstrated by a large amount of research (Brockett & Hiemstra, 1991; Candy, 1991; Roberson, 2004). Self-directed learning may have a positive impact on preventing decline and dependency in older adults (Lamdin & Fugate, 1997), lead to increased independence and life satisfaction (Brockett, 1985), or positively affect health and lifestyle (Lamdin, 1997). Valente (2006) argues that older adults’ proactive involvement in the self-direction in health care is driven by recognizing the fact that “one’s health can affect independence” (p. 417). Self-directed learning may be personally rewarding through providing opportunities to develop “an independent identity” and achieve recognition (Lear, 2011, p. 178) and benefit other people (Sears, 1989; Lear, 2011). Rager (2006) identified the desire to help other people newly faced with a health crisis as an outcome of self-directed learning of older people in a crisis situation.

Development of empowering competence

Development of older learners’ self-directedness as an outcome of learning is expressed by transformation of the learners’ understanding of and attitude towards learning as an individual-directed process (Sears, 1989; Roberson, 2003; Scott, 2006). This process leads to instrumental and expressive competence development and personality development continued after retirement (Hodkinson et al., 2008). The outcomes are also expressed in the older adults’ control of their lives (Roberson, 2003). Older adults incorporate self-directed learning in their lives which enables them to continually make the adjustments needed for coping with aging-related changes (Roberson, 2003; Tam, 2013; Woodilla & Stork, 2016). Older adults gain control of their health by learning to establish appropriate physical activity and exercise levels, maintain a positive psychological health, manage specific health conditions, and control their living environments (Valente, 2006). SDL acts as empowering experience which enables older adults “to learn the necessary tools for change as well as personal enrichment” (Roberson, 2004, p. 214) and gain control of their personal health (Rager, 2006; Valente 2006).

Summing-up. The literature review allowed identifying the characteristics of self-directed learning in older adulthood, which combine the factors influencing older adults’ self-directed learning (antecedents), the characteristics of the learning process specific to older adults (attributes) and the meaning of the learning outcomes to the older learners (consequences) (see Table 3). The factors affecting self-directed learning in older adulthood include access to personal and social resources and learning experience accumulated during the lifespan. The congruous context, availability of intellectual resources, access to resources in the social environment are identified as facilitating factors whereas inadequacy of resources is associated with barriers to self-directed learning. Prior

learning experience and formation of efficacious identity contribute to learning which is facilitated through integration of the past experience. The self-directed learning process encompasses the dimensions of life-stage needs related motivation, maintaining control over learning, balancing planning and adjustment and a decisive impact of the individual's environment on the learning process. The life-stage needs related motivation is associated with aging-related adjustments, gaining pertinent information, a need to control one's health, the influence of other people, expressive motivation and instrumental needs. Older adults maintaining control over their self-directed learning is represented by independence in learning, development of coping strategies, self-efficacy and a strong beliefs and values system. The characteristic of balancing planning and making adjustments to pre-planned activities in the learning process are expressed in older learners pre-planning their learning and also using strategies of sorts when faced with barriers and making adjustments. Therefore, a variable structure becomes a major characteristic of the learning process with much of the learning being beyond well-planned activities. The learning process is determined by the ageing individuals' environment which is reflected in the reactive, collaborative and contextual nature of learning. The meaning of the learning outcomes to older learners is expressed in the promotion of older adults' quality of life and development of empowering competence. The promotion of quality of life is associated with adapting to ageing changes, life satisfaction, preventing decline, increasing independence and positive change in social attitudes. The development of empowering competence is expressed in the development of self-directedness in learning, coping competence and personality growth. Analysis of the context dimensions provides insights into the learning environment influences on older adults' practice of their self-directed learning.

1.3 Generativity as a context for later life learning

In this chapter I will review the current definitions of generativity and its characteristics in older adulthood based on theoretical studies by the leading scholars in the field. The literature review of empirical studies will allow me to establish the main expressions of generativity with respect to later life learning. State-of-the-art review was carried out aiming at disclosing contemporary perspectives on generativity as a context for later life learning. State-of-the-art review is a subtype of the more generic „literature review” which is used to address current matters, provide analysis of the current state of knowledge and identify priorities for research in contrast to other retrospective and current approaches (Grant & Booth, 2009) focusing on extensive exploration of the development of the theory in the past perspective. The literature review to be well-grounded, it is important to describe the methods of search for sources, the analysis and the interpretation (Torraco, 2016). I carried out a comprehensive search for current literature in the following online databases: EBSCOhost, ScienceDirect, and Taylor and Francis. The key words were related to three categories: (1) learning (also named as personal development, growth, competence development), (2) older adult, (3) generativity. I also listed the potential terms (Torraco, 2016), which may be associated with the notion of older adults – „elderly”, „third age”, „later life”, „older adulthood”, „older people”. The search words were identified in the titles, keywords, and abstracts. I included the publications meeting the following criteria: published in a peer-reviewed journal; written in English; publication date between 1950 and 2019. The initial search produced 93 publications. The further screening focused on two criteria: (1) empirical study of the older population (aged 50+); (2) study of learning of an informal

type. The further search produced 23 publications. I included studies which focused on any aspect of generativity as a context for informal learning. The studies analyzing only older peoples' involvement into generativity without reference to personal development or learning were excluded. Appendix 3 comprises the information on the empirical studies used for the concept analysis, which indicates the publication details (authors, and the years), the guiding theory, methodology descriptors (data collection methods, data analysis methods, participant characteristics), the aims of the study, and the main findings. Table 4 presents an overview of the conceptual dimensions of later life learning in generativity context.

Table 4. Conceptual dimensions of later life learning in generativity context

Conceptual dimensions	Characteristic features of dimensions
Antecedents	
Generative engagement	Affirmation of one's life (Ranzijn, 2002; Pinguart, 2002; Narushima, 2004; Warburton & Gooch, 2007; Russell, 2008; Jones & McAdams, 2013; Tabuchi & Miura, 2015; Golding & Foley, 2017) Generative person's identity (Stergios & Carruthers, 2002; Warburton & Gooch, 2007; Borrero & Kruger, 2015) Commitment to socially important, ethical behaviour (Field, 2003; Borrero & Kruger, 2015).
Previously gained competence	High levels of competence (Lysack & Steipke, 2002; Pinguart, 2002; Stergios & Carruthers, 2002) Wisdom developed over life experiences (Golding & Foley, 2017) Learning from previous generations (Bates, 2009; Bates & Goodsell, 2013)
Social environment influences	Positive intergenerational interaction (Russell, 2007; Ehlman et al., 2014; Tabuchi & Miura, 2015; Tabuchi et al., 2015) Community as space for learning (Buffel et al., 2012; Krašovec & Gregorčič, 2017) Identification of purpose in life through social integration (Pinguart, 2002; Russell, 2007; Birrer-Hardwick & Greenwood, 2017)
Attributes	
Informed participation motivation	Desire to contribute to the community and improve it for future generations (Lear, 2013; Parisi et al., 2009) Understanding the function of the generative activity (Stergios & Carruthers, 2002; Krašovec & Gregorčič, 2017) New learning of a particular issue and using one's knowledge and skills (Stergios & Carruthers, 2002; Bradley, 2003; De Espanes et al., 2015) Intergenerational participation (Krašovec & Gregorčič, 2017)
Empowerment	Emancipatory nature of learning (Narushima, 1999, 2004; Krašovec & Gregorčič, 2017; Narushima, 1999, 2004)

	<p>Personal growth (Narushima, 1999; Bradley, 2003; Warburton & Gooch, 2007; Lear, 2013)</p> <p>Self-realization (Lear, 2013), self-actualization (Narushima, 2004)</p> <p>Competence development (Lysack & Steipke, 2002; Kruse & Schmitt, 2012; Villar & Serrat, 2014)</p>
Informal learning experiences	<p>Informal learning as the main type of learning (Narushima, 2000; Duguid et al., 2013; Lear, 2013; Krašovec & Gregorčič, 2017)</p> <p>Self-directed nature of learning (Narushima, 2000; Roberson, 2005b; Warburton & Gooch, 2007; Schugurensky & Myers, 2008)</p> <p>Instrumental learning (Narushima, 2000, 2005; Serrat et al., 2016)</p> <p>Social learning (Narushima, 2004, 2005; Serrat et al., 2016; Krašovec & Gregorčič, 2017; Yuan et al., 2018)</p> <p>Critical and political learning (Serrat et al., 2016)</p> <p>Communicative learning (Narushima, 1999, 2000; Schugurensky & Myers, 2008; Piercy et al., 2011; Lear, 2013; Golding & Foley, 2017; Krašovec & Gregorčič, 2017)</p> <p>Transformative learning (Narushima, 2005; Warburton & Gooch, 2007; De Espanes et al., 2015)</p>
Reflection	<p>The duality of learning: unconscious vs conscious (Schugurensky, 2002; Warburton & Gooch, 2007; Schugurensky & Myers, 2008; Duguid et al., 2013; Krašovec & Gregorčič, 2017)</p> <p>Enhancement of learning awareness through reflection (Duguid et al., 2013)</p> <p>Developmental learning through reflection (Parisi et al., 2009; Pfahl, 2011)</p>
Consequences	
Personal growth	<p>Self-integration (Narushima, 1999; Warburton & Gooch, 2007; Urrutia et al., 2009; Piercy et al., 2011; Wang & MacMillan, 2013)</p> <p>Wisdom (Parisi et al., 2009; Piercy et al., 2011; Lear, 2013)</p>
Competence development	<p>Teaching and mentoring competence (Stergios & Carruthers, 2002; Parisi et al., 2009)</p> <p>Social competence (Serrat et al., 2016; Krašovec & Gregorčič, 2017)</p> <p>Changes in attitudes, knowledge and skills (Lear, 2013; Serrat et al., 2016)</p> <p>Discovering previously undeveloped abilities (Lear, 2013)</p> <p>Adoption of new attitudes (Schugurensky & Myers, 2008)</p>
Establishment of one's role	<p>Emancipatory changes (Narushima, 2000; Stergios & Carruthers, 2002; Birrer-Hardwick & Greenwood, 2017)</p> <p>Expression of agency in their contexts (Narushima, 2004; Warburton & McLaughlin, 2006; Villar, 2012; Bates & Taylor, 2013)</p> <p>Positive impact on age-adaptive processes (Kruse & Schmitt, 2012; Villar & Serrat, 2014)</p>

1.3.1 Generativity in later life: the inclusivity of the concept

In the present study, the concept of generativity in older adulthood is approached from the perspective the theory of social gerontology. The analysis of the concept is embedded in a comprehensive framework of generativity as a phenomenon of psychosocial development. I will start analysis of the construct of generativity with an overview of conceptualizations of generativity, and will examine contemporary interpretations of generativity in relation to later life development. The goals of the literature review of generativity in later life are to disclose: (1) the main characteristics of generativity in later life; (2) the factors which influence later life generativity; (3) the key elements of the generativity process in later life.

1.3.1.1 Definition of generativity

When introduced by Erikson (1950, 1963), initially the notion of generativity was used to denote „an interest in establishing and guiding the next generation” (Erikson, 1964, p. 267). In his eight-stage personality development model, Erikson defined generativity as a life commitment in the seventh stage - middle-adulthood - within the domain of family and parenthood. In his later works, Erikson extended the notion beyond the family life and included the personal, occupational, community, religious and other domains and described generativity as an ability to care for others associated with the human development (Erikson, 1964). Further scholarship on generativity (Kotre, 1984; McAdams & de St.Aubin, 1992; McAdams et al., 1998) led to the development of a relational contextualized construct (McAdams & de St.Aubin, 1992). Kotre (1984) rejected the association of generativity with a developmental stage and proposed to conceptualize it as „a generative impulse” which motivates the individual „to invest one’s substance in forms of life and work that will outlive the self” (Kotre, 1984, p. 10). McAdams and de St.Aubin (1992) further theorized on the concept of generativity in the perspective of personal and social development proposing a psychosocial model of generativity linking the person and the social world with the common goal of providing for the next generation. In this framework generativity as a complex psychosocial construct comprises seven interrelated dimensions: cultural demand, inner desire, concern for the next generation, belief in the species, commitment, action, and personal narration (McAdams & de St.Aubin, 1992). In the view of this theory, generativity is motivated by cultural demand in the way that society demands that adults assume responsibility for the next generation. Inner desire as a source of generativity may be manifested by an individual’s „desire for symbolic immortality” or „a need to be needed” (McAdams & de St.Aubin, 1992, p. 1005). The combination of societal demand and inner desire creates conscious concern for the next generation which is expressed in the extent of the individual’s care for the development of the next generation. This concern may lead to a subsequent commitment to generative action which may be encouraged or undermined by belief in the species – hope that succeeding generations will have a more advanced and better life. The dimension of generative action or behavior has been extensively analyzed and elaborated on by scholars of generative research. It is associated with creation of a product or legacy as „extension of the self” (McAdams, 1985) by means of productivity and creativity (Kotre, 1984, 1998; McAdams & de St.Aubin, 1992), agency and communion (McAdams & de St.Aubin, 1992; Warburton & Gooch, 2007). McAdams and de St.Aubin (1992) provide probably the most comprehensive system of coding themes of generativity

which includes creating (creating new products, initiating projects, generating new ideas, or desiring to do so), maintaining (putting forth effort toward sustaining an ongoing product, project or tradition), offering (giving of the self and the self's products (e.g. money or knowledge) or the desire to engage in such giving to other people, next generation (purposive and positive interaction with an individual or individuals in a younger generation), symbolic immortality (leaving a legacy, having an enduring influence, or leaving behind products that will outlive one's physical existence) (p. 1010-1011). Generative actions acquire meaning through narration which also informs the other features of generativity (McAdams et al., 1998, p. 11). Personal narration of generativity or generativity script as a key feature of an adult's self-defining life story is constructed within the context of adult identity development as a personal myth incorporating generativity in the ways one fits in the social world to „leave a legacy of the self for future generations” (McAdams & de St.Aubin, 1992, p. 1006). Generativity script is defined as „an inner narration of the adult's own awareness of where the efforts to be generative fit into his or her own personal history” (p. 1006). A full understanding of generativity in a person's life is rendered by examination of the arrangement of these elements, which in a particular social and historical context of an adult life „are organized in a unique and self-defining way” (McAdams & De St.Aubin, 1992, p. 1004).

In the scholarship on the generativity domains there have been a number of taxonomies proposed (Kotre, 1984; Peterson & Klohnen, 1995; Sabir, 2015; Snow, 2015). Kotre (1984) proposed a taxonomy of generativity distinguishing between its modes and types. He separates generativity into two modes – agentic and communal. The agentic generativity represents the behaviors oriented to the self – extending the self through leadership, productivity and creativity, whereas the communal generativity is oriented to community-related behaviors – caring for other people and establishing bonds. Kotre (1984) proposed four types of generativity, including (1) biological (fertility and children); (2) parental (caring about offspring, passing on family traditions); (3) technical (teaching skills); (4) cultural (creating, conserving, passing on culture to the next generation) (Kotre, 1984, p. 12). Kotre (1996) suggested that each type of generativity is age specific in the way it manifests itself and predominates in different periods of an individual's life-course, and may continue until late adulthood. In their study of middle-aged women Peterson and Klohnen (1995) identified four domains for the expression of generativity: prosocial personality characteristics, expression of generative attitude through work productivity, parental involvement through investing in the parenting process, and expanding radius of care to a broader societal level - health concerns and political interests (p. 21-22). Care moves beyond one's family to taking interest in social events, concern with the maintenance of cultural traditions or taking part in constructive political activism (p. 22). In the generativity construct Peterson and Klohnen (1995) identified 13 items including behaving in a giving way toward others, behaving in a considerate or sympathetic manner, being protective of those close to you, having warmth (the capacity for close relationships), being turned to for advice and reassurance, being a genuinely dependable and responsible person, being productive - getting things done; behaving in an ethically consistent manner; tending to offer advice; having a wide range of interests; being socially perceptive of a wide range of social cues; being able to see to the heart of important problems; being concerned with philosophical problems (p. 24). Sabir (2015) suggests the notions of global and personalized generativity based on McAdams' (1985) description of generativity as having two ways of orientation: oriented towards the future of mankind and continuity of the species, and oriented toward the future of the individual's own life (p. 260). Global generativity is associated with expression of care and concern for society, and personalized

generativity is about continued investment of one's resources toward a single project. Sabir (2015) defines personalized generativity as an idiosyncratic form of self-expression (p. 18) and argues that „each instance or representation of personalized generativity is extraordinary in that each is unrepeatable – emerging from each individual's unique configuration of personality, family, community, and cultural life experiences” (p. 17). Snow (2015) defines generativity as „a desirable form of ego maturation and development” contrasted with stagnation, self-absorption and rejection, and as a way in which a person actualizes their potential as a human being (Snow, 2015 p. 265). Snow (2015) argues that at the heart of generativity there is an essential conflict between genuine care for others and ego-driven concern for the self (p. 272). The solution to this conflict is “a proper balance between care for the self and care for others” (p. 272).

McAdams and De St Aubin (1992) suggest that analysis of generativity in an adult's life requires assessment, interpretation and evaluation of the unique pattern of a number of psychosocial dimensions within a social and historical context (p. 1013). The level of generativity may differ in individuals (McAdams & Logan, 2004, p. 20-23). Adults are generative in different ways – through beliefs and concerns, or through commitments and actions, and other aspects. The adults who feel unable to leave generative outcomes experience stagnation or engage into self-preoccupation (McAdams, 2006, p. 83). For the study of generativity, McAdams proposed various methodologies (McAdams & de St.Aubin, 1992; McAdams et al., 1997) including scales to assess generative concerns (the Loyola Generative Scale) and generative behavior (the Generative Behavior Checklist). Bradley and Marcia (1998) proposed a model of the generativity status prototypes as defined by combinations of the organizing dimensions of involvement and inclusivity: generative, agentic, communal, conventional, and stagnant. They argue that these statuses are conceived as theoretical ideals, to which individuals correspond to varying degrees: “*Generative* individuals are highly involved in their work and the growth of young people, and are concerned about broader societal issues. They are tolerant of different ideas and traditions, and able to strike a balance between care and consideration for the self and for others” (Bradley & Marcia, 1998, p. 42). The criteria of involvement and inclusivity are applied as they relate to the self and others. “Involvement” is consistent with Erikson's concept of “care” (Erikson, 1982), which represents adults' participation in “the establishment, the guidance, and the enrichment of the living generation and the world it inherits” (Erikson, 1982, p. 123), and reflects the degree of an individual's concern with “the growth of oneself and others” in terms of behaviors, responsibility for sharing skills and knowledge, and “the ability to follow through with commitments” (Bradley & Marcia, 1998, p. 41). Bradley and Marcia (1998) relate the concept of inclusivity to Erikson's concepts of the “mature ego”, capable of tolerance of tension and diversity (Erikson, 1968, as cited in Bradley & Marcia, 1998, p. 41), and “rejection” as unwillingness to include specific persons or groups in one's generative concerns, or self-rejection (Erikson, 1982, p. 68-70) and define it as the “scope of one's caregiving activity, in terms who and what is to be included or excluded (Bradley & Marcia, 1998, p. 41). They suggest that self-interest and inclusivity of the self are “fundamental to the continued growth of the adult individual engaged in generative tasks (Bradley & Marcia, 1998, p. 59).

The analysis of literature on the development of the concept of generativity shows that the construct of generativity in later life is a multifaceted and complex construct which may be viewed from multiple perspectives. Scholars engaged in generativity research have proposed a variety of taxonomies for the study of generativity domains encompassing a wide range of areas of human activity. The variety of notions proposed in the scholarship on the expression of generativity

demonstrates the complexity and multidimensionality of the construct of generativity. There are many overlaps between the elements and areas of generativity. The questions which may be raised for further exploration of generativity in relation to later life development: How the person perceives their generative goals and maintains their ability to participate in generative activities? How engagement in generativity contributes to the older adult's personal development? As a working definition of generativity for further development of the understanding of generativity as context for self-directed later life learning in my study I will adopt the conceptual and methodological framework proposed by McAdams and St. Aubin (1992). Following this framework, there are 7 features defining the construct of generativity including inner desire, cultural demand, concern for the next generation, belief in the species, commitment, action (creating, maintaining, offering), and narration. This approach to the construct of generativity in older adulthood is embedded in the theory of social gerontology and adopts the psychosocial developmental perspective as initially proposed by Erikson (1950, 1982).

1.3.1.2 Generativity in later life

The research on generativity carried out since Erikson's introduction of the concept has shown that generativity is not exclusively an attribute of middle adulthood, as it has also been identified in early and late adulthood with particular characteristics of its expression (Kotre, 1998, p. 24). Kotre (1996) suggested that, being age-specific, certain types of generativity may continue until late adulthood. With respect to the older adulthood as a developmental stage, in his final works Erikson introduced the concept of grand-generativity associated with the grandparenting role and „vital involvement” in society reflected in older people's concern with passing on values and knowledge to the next generation (Erikson et al., 1986). Age as a key dimension to research on generativity has been emphasized by McAdams and St Aubin (1992), who also pointed out that due to increasing social demand generativity may become a salient issue in adults' life as they grow older. However, since the introduction of the construct of generativity by Erikson (1963), the issue of generativity in later life has been little analyzed and the literature on generativity in later life is relatively scarce (Ehlman et al., 2014). The insufficiency of research and the need for more extensive scholarly studies of interrelationships among the personal, social and institutional dimensions of generativity, which should combine the perspectives of behavioral and social sciences has been pointed out by Villar and Serrat (2014).

Lang and Baltes (1997, as cited in Schoklitsch & Baumann, 2011, p. 32) proposed three distinct types of generativity in older age: creating lasting values which encompasses life goals and social contacts; being „keepers of meaning” by connecting change and continuity; being self-decent and self-responsible by being less demanding and relieving younger generations. The most common instrument used in research to measure generativity is the Loyola Generativity scale (McAdams & de St.Aubin, 1992). However, as it was pointed out by Schoklitsch and Baumann (2011), the assessment methods which were developed for measuring generativity had to be redesigned to suit older adults. Schoklitsch and Baumann (2011) proposed that older adults' generative concerns may be assessed by reviewing their past experiences and they have designed a generativity scale for older adults which allows to measure generativity in older adults in a multidimensional way. Kleiber and Nimrod (2008) identified the generative activities of older people in the community and classified them with respect

to public versus private expressions and agentic versus communal aspects of generativity dichotomies. Action categories and meanings were then used to contrast private expressions of generativity with more public expressions linked to civic engagement. The activities, following McAdams and de St. Aubin taxonomy of generative actions, included offering services to help, provide for, or educate others; creating objects that were intended to be enduring; maintaining and protecting resources, as well as those which combined more than one goal (Kleiber & Nimrod, 2008, p. 79).

Generativity in later life has been explored by researchers working in different fields, and thus most of research on generativity in later life is cross-sectional (Ehlman et al., 2014). The contemporary understanding of generativity defines it as a relational and multiply contextualized construct which links the person to the social world (Kruse, Schmitt, 2012, p. 3). Pointing to the intrinsically interdisciplinary nature of generativity, Villar and Serrat (2014) argue for generativity acting as a link between a person and the social context in which older people participate. Generativity measurement studies have only recently started to identify elderly people as a subgroup and apply the research tools with differentiated generative features characteristic of later life context (Ehlman et al., 2014). Research into the features of generativity shows that the level and extent of the expression of individual features may vary with age: generative concerns are described as a more common feature of older persons' generativity than generative behavior which may cause some difficulties and problems associated with the factors related to the participation process (Warburton et al., 2006). Kleiber and Nimrod's (2008) study of generative expressivity in older adulthood identified a variety of generative activities among the members of a learning community of retired people ascribed to the category of „valued life activities” described as activities benefiting both future generations and the older individuals themselves. Keyes and Ryff (1998) suggest that “generativity is a multifaceted construct that may be manifest in distinct ways”. “Generativity exhibits individuals' longing to feel socially instrumental – needed by others and capable of creating positive results for others” (p.230). “Successful resolution of the generativity imperative paves the way for resolving the integrity task of older adulthood” (p. 230). Kruse and Schmitt (2012) differentiate three spheres of human responsibility, including individual self-care (i.e. individual's responsibility for and against oneself), individuals' joint responsibility (i.e. willingness to engage for others and society), and individuals' obligation against God and creation (i.e. joint responsibility for following generations) (p. 2-3). Generative expression through productive activities may include tangible and intangible contributions: production of goods and services as paid or unpaid work (housework, non-work-related activities, passing on of knowledge and expertise, wisdom and guidance for their children and grandchildren or people outside the family (Ranzijn, 2002, p. 35). Emotional and intellectual productivity as generative expression is defined as having an interest in the development of younger generations, transmission of information, reflection of their experiences and knowledge systems (Kruse & Schmitt, 2012, p. 2). Generativity in the context of grand-parenting may be conceptualized as active engagement in “caring for, establishing and nurturing grandchildren” (Bates & Taylor, 2013, p. 311). Bates and Goodsell (2013) identified the generative grandfathering dimensions including consciousness of the family's lineage, skill sharing, meaningful emotional bonds, renewing bonds, family identity, sacred family spaces, culture of good fathering, multigenerational family generativity, and inter- and intra-generational improvement, which reflect grandfathers' generative efforts (p. 26). Generativity can be expressed in leading an independent and responsible life when confronted with problems and borderline situations (Kruse & Schmitt, 2012). Individual self-care

may be interpreted in the way that by leading an independent and responsible life, older people can set for younger generations a model of coping with serious problems or borderline situations (Kruse & Schmitt, 2012, p. 2). Kleiber and Nimrod (2008) propose that the areas of generativity may include mentoring, teaching, volunteer work, charitable activity, religious involvement, and political activity, and is manifested in both private and public ways (p.77). Warburton et al. (2006) study showed that generativity is expressed in passing on cultural knowledge through narratives and modelling (i.e. expression of cultural generativity). The expressions of generativity are socially constructed (McAdams & Logan, 2004, as cited in Kleiber & Nimrod, 2008), and historically situated (Moran, 1988, as cited in Kleiber & Nimrod, 2008). Schoklitsch and Baumann (2011) introduced the concepts of social and ecological generativity – development of social skills in the context of globalization and passing the environment on to subsequent generations (p. 32). The examples of social generativity include passing on experiences, imparting social values, passing on knowledge, being a role model, helping young people to develop, guiding young people. Ecological generativity is expressed by living ecology-minded, avoiding garbage, being thrifty with energy, leaving behind an intact environment, protecting animals or buying organic food (Schoklitsch & Baumann, 2011).

Rubinstein et al. (2015) carried out a research on generativity in older adulthood within a cultural anthropology framework to explore the representations of generativity within the context of American culture. They introduced the notion of duality as interpersonal and intergenerational connectedness, and extend previous definitions of generativity by identifying objects of generative action and temporal and relational frameworks for generative action. They claimed that the notion of “dividuality” is at the heart of generativity, as it embodies the “placing of something of the self with others (p. 549) and as “passing elements of the self through to others who will live after one’s own end” (p. 549). The scholars developed a framework consisting of four foci of generativity as culturally defined objects (people, groups, things and activities) and four spheres of generativity including historical, familial, individual, and relational). The authors argue that “some of the constructs developed by McAdams and de St. Aubin have little ‘natural’ significance” for the participants of their research, and the notions of “belief in the goodness of humankind” or “belief in the species” are too abstract and have little relevance as culturally located or meaningful concepts (Rubinstein et al., 2015, p. 551). The authors point out that personal and moral responsibility for generative action was prominent in the participants’ representations of generativity, and the personal gains created through generative action in support of others (p. 551). Rubinstein et al. (2015) in their research of the nature of generative action identified a framework consisting of two perspectives – objects of generativity (people groups, things and activities), and forms of generativity (individual, historical, family, and relational). The authors suggest that the study of generativity requires to expand on earlier approaches and develop a more culturally situated framework. Their approach involved the partibility and combinability of the self through generative action; and a framework of foci and spheres of generativity.

The literature review shows that the expressions of generativity in older age have been studied in a variety of domains including family and grandparenting (Villar et al., 2012; Bates and Goodsell, 2013), involvement in teaching and mentoring younger generations (Stergios & Carruthers, 2002; Golding & Foley, 2017; Warburton & Gooch, 2007), volunteering (Narushima, 1999, 2000, 2004, 2005, 2018 ; Urrutia et al., 2009; Warburton & Gooch, 2007; Piercy et al., 2011), productive activity (Kruse & Schmitt, 2012; Yuan, 2018; Lysack & Steipke, 2002; Borrero & Kruger, 2015) including gardening (Wang & MacMillan, 2013; Cheng et al., 2010), civil engagement - involvement in civic,

political, religious activities (Ehlman et al., 2014; Serrat et al., 2016, 2017; Villar, 2012; Hennessy, 2010; Krašovec & Gregorčič, 2017; Principi et al., 2016; Flynn, 2001; Jones & McAdams, 2013; Schugurensky & Myers, 2008; Narushima, 2004, 2005) and community activism (Birrer-Hardwick & Greenwood, 2017; Warburton et al., 2006; Kruse & Schmitt, 2012; Lear, 2013).

Some studies focused on gender specific properties of generativity. For example, Schoklitsch and Baumann (2011) found that men are becoming more aware of their generative concerns as they age, while women have social concerns over their entire life span. According to the convergence hypothesis, gender differences may decline with aging due to the similarity of social roles in later life, when parenthood and occupational domains become less important (Carmel and Bernstein, 2003). Bates and Goodsell (2013) assert that the potential of men's learning is embedded in generativity, which is demonstrated by "multiple generations of men doing investment work" (p. 42).

The environmental constraints preventing/limiting factors the ability of older people to contribute to society can be divided into three categories: ill health (of self or others), structural barriers (physical environment, bureaucracy, or infrastructure) and attitudinal barriers (ageism, stereotypes, including self-stereotypes) and structural (physical environment, bureaucracy, or infrastructure). Kruse and Schmitt (2012) in their study of generativity used a sample of older people in the Baltic countries found that age stereotypes make an impact on generativity

The link between generativity and „aging well”

A large body of research show that commitment to doing things for others is an important factor of older people's life satisfaction (Lysack & Steipke, 2002; Pinquart, 2002; Ranzijn, 2002; Kruse & Schmitt, 2012; Lear, 2013; Serrat et al., 2017). Most of the above studies focus on the generative nature of older persons participation in different domains and its effects on older person's life, mainly on well-being or life satisfaction, and the results have been contradictory, which can be related to the multidimensional nature of generativity (Serrat et al., 2017). Villar and Serrat (2014) argue that the study of generativity in older adulthood is generally embedded in the context of „aging well”, which focuses on the positive aspects of aging thus excluding less able older people (p. 393). Kruse and Schmitt (2012) in their study of generativity used a sample of older people in the Baltic countries found that generativity is a predictor of satisfaction with life (p. 4). The research in the area of gardening, which is commonly associated with the leisure domain rather than productive generative activity, the focus has been mainly on the therapeutic benefits or well-being of elderly people - it has been found, that it has positive mental, physical and cognitive effects (Wang & MacMillan, 2013). Ranzijn (2002) in the research on productive aging established a link between productive contributions and well-being in later life, which supports the theory that generativity is an important need in later life. A large body of research has established a positive relationship between learning and productive aging (Ardelt, 2000; Boulton-Lewis, 2010; Kruse & Schmitt, 2012; Withnall, 2000).

Villar (2012) points out to the personal development, growth and maturity components in generativity, which makes this approach to aging differ from the concepts of active aging, productive aging or successful aging models. He also argues that the developmental perspective makes it more optimistic highlighting the gains in later life rather than maintenance or loss regulation as it is emphasized in lifespan theories. Villar (2012) proposes that generativity provides “concrete and meaningful goals and activities upon which adaptive processes in older age can operate” (p. 1099). Warburton et al. (2006) study focused on the role of generative acts to the lives of older people and

showed that involvement in the family and community as a productive and generative activity promotes a positive experience of aging in the older individuals themselves. However, active involvement in civic activities may imply sacrifices, extensive efforts, and difficulties, which have a negative effect on elders' well-being (Serrat et al., 2017).

Summing-up. Generativity in later life is a multidimensional construct with the following characteristics: dynamics, multi-faceted nature, multi-layered structure. Multi-dimensionality includes age as a key dimension - physical, social, cultural, and psychological. The literature review shows that generativity encompasses a wide range of beliefs and behaviors through which older individuals express their agency in their environments. The underlying factors which influence later life generativity include personal values, ageing-related physical factors, social contexts, and perception of barriers. The key elements of generativity as a process include individual interpretation of the meaning in later life activity, personality factors, self-efficacy, values, perceived competence etc. However, there have been a limited number of studies which attempted to specify and define the generativity concerns in later life (Schoklitsch & Baumann, 2011) or intergenerational contexts as a space for exchange of knowledge in informal processes (Thalhammer, 2012). For example, as pointed out by Bates and Taylor (2013) research on grand-parenting lacks theoretical and conceptual groundwork. There is limited research on the impact of generativity on the ageing process (Kruse & Schmitt, 2012). The insufficiency of research points to the need for more extensive interdisciplinary scholarly studies of interrelationships among the personal and contextual dimensions of generativity in later life.

1.3.2 The main dimensions of generativity as context for later life learning

This chapter will further explore generativity in relation to later life development and learning and will provide a concept analysis of later life learning through generativity. The goals of the literature review are to identify the major dimensions of later life learning in generativity contexts: (1) the factors affecting later life learning through generativity; (2) the characteristics of older adult learning process in generativity; (3) the impact of learning through generativity on the older learner's life.

1.3.2.1 The inherent nature of generativity as learning

Empirical support for the peculiarities of generativity in later life comes from the studies identifying the link between generativity expressions and age-related aspects of psychosocial development identifying age-related dimensions. The concept of generativity through "creative retirement" and education (Manheimer, 1992, as cited in Wolf, 1998) is widely referred to in a large body of research on generativity in later life. In his earlier works Erikson (1974) pointed out that generativity encompasses learning to take care of persons, products and ideas. Following Erikson's theory, learning is embedded in an older individual's attempts to resolve the developmental crisis of generativity leading to personal growth in the development of the competence associated with care. Working through developmental conflicts and tensions in older adulthood may become a source of growth and development of wisdom (Erikson et al., 1986). In his final works Erikson (Erikson et al.,

1986) emphasized the role of lifelong learning as part of generative involvement of older people in society.

The inherent nature of generativity as learning is evident in empirical research of the last decades (Narushima, 1999, 2000, 2004; Villar et al., 2012; Lear, 2013; Serrat et al., 2016). For example, Narushima (2004), who researched older women's participation in social activism as a context for later life learning, asserts that generative activity in the form of social activism serves as "an alternative model for later life learning" (p. 40). The meanings and experiences of learning associated with generative activity are salient in a variety of domains including coaching, mentoring and teaching (Stergios & Carruthers, 2002; Kleiber, 1999; Kleiber & Nimrod 2008; Golding & Foley, 2017; Warburton & Gooch, 2007), political and civic engagement (Field, 2003; Kleiber & Nimrod, 2008; Jones & McAdams, 2013; Narushima, 2004; Schugurensky & Myers, 2008; Serrat et al., 2016; Lear, 2013), productivity (Lysack & Steipke, 2002; Kruse & Schmitt, 2012; Borrero & Kruger, 2015; Yuan et al., 2018), grandfathering (Bates & Goodsell, 2013), volunteering (Birrer-Hardwick & Greenwood, 2017; Narushima, 1999, 2000, 2005; Piercy et al., 2011), and social participation (Flynn, 2001; Krašovec & Gregorčič, 2017; Urrutia et al., 2009). Gardening (horticulture) is associated with continuous learning (Infantino, 2004, as cited in Wang & MacMillan, 2013) in creating meaning through caring and productivity.

The literature review shows that a large number of empirical studies establish generativity's link to personal growth (McAdams, 2006; Narushima, 1999; Russell, 2007; Warburton & Gooch, 2007; Pfahl, 2012; Villar, 2012; Bradley, 2003; Piercy et al., 2011; De Espanes et al., 2015). Generativity facilitates personal growth as development of personal integrity (ego-integrity) (Narushima, 2000, 2004; Piercy et al., 2011; Urrutia et al., 2009), wisdom (Golding & Foley, 2017; Parisi et al., 2009; Piercy et al., 2011; Strom & Strom, 2011; Tabuchi & Miura, 2015), or competence development (De Espanes et al., 2015; Kruse & Schmitt, 2012; Lear, 2013; Lysack & Steipke, 2002; Pinquart, 2002; Stergios & Carruthers, 2002; Villar et al., 2012; Villar & Serrat, 2014). Figure 1 represents the conceptualization of later life learning in generativity context.

1.3.2.2 The analysis of the concept of later life learning through generativity

The literature review allowed identifying the major dimensions of later life learning in generativity context. The identified dimensions include the factors influencing learning (antecedents), the main components of the learning process (attributes), and the meaning of learning through generativity in older adults' lives (consequences) (see Figure 1).

Antecedents

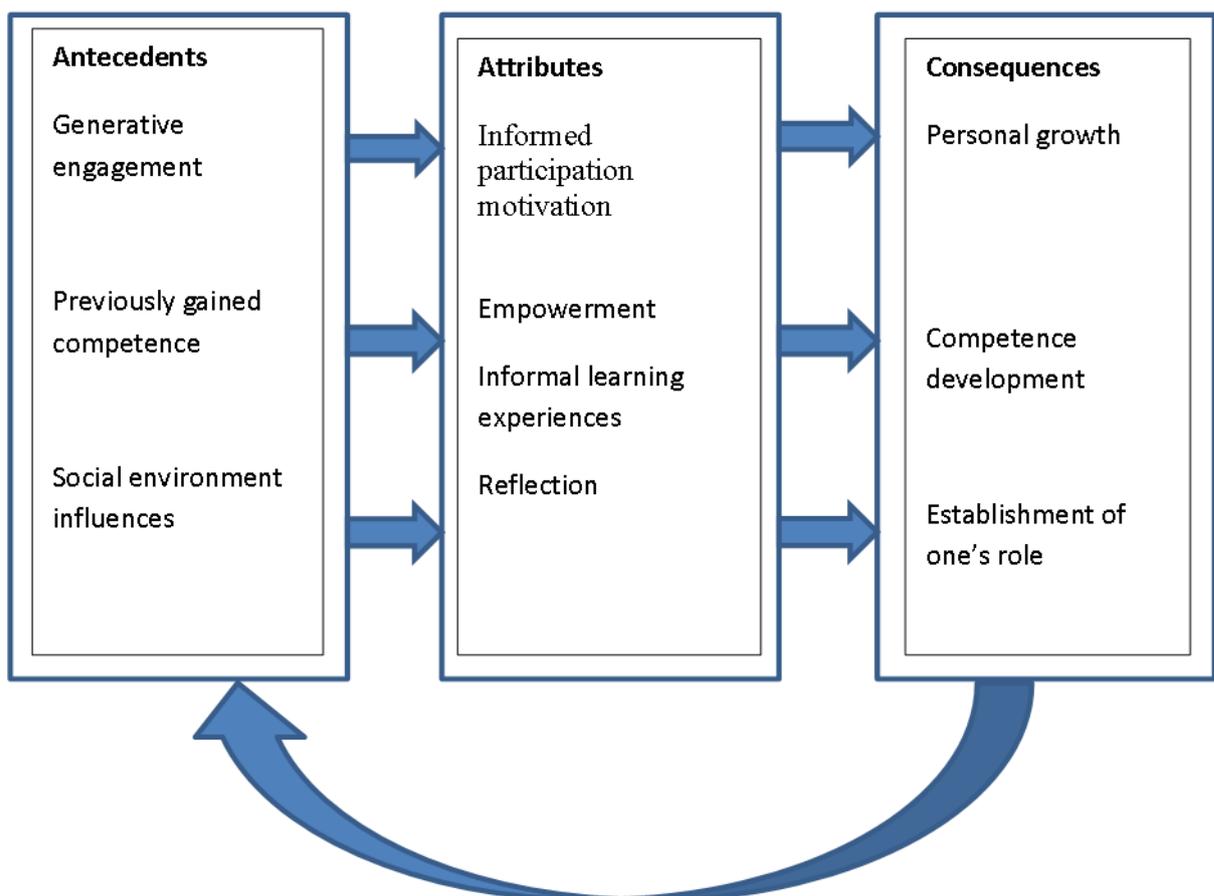
Concept analysis based on the literature review showed that older adults' generative engagement, previously gained competence (experience) and social environment influences are the antecedents of learning in generativity-related contexts.

Generative engagement

Scholars engaged in generativity research from the psychosocial perspective associate generative engagement with an older person's concern about leaving a legacy (McAdams et al., 1998). Jones and McAdams (2013) propose that adults' commitment to caring for and contributing to the well-being of future generations are the developmental antecedents of generativity as

engagement in political and civic activity. Warburton and Gooch (2007) identified the importance of a generative response in later life and revealed that older people are likely to connect their generative actions with the longer-term future and a „need to leave a lasting legacy for future generations” (p. 43). Following Erikson’s idea of “ego integrity” (1950), leaving a legacy stimulates an older person to reflect on a sense of wholeness, which integrates the continuity, the meaning and the purpose in their lives, and search for the ways to significantly contribute to the world (Russell, 2008, p. 207). Generativity and grand-generativity may be „innate urges that need to be expressed” (Ranzijn, 2002, p. 42). Affirmation of one’s life by contribution to the world may be reflected in a variety of forms ranging from passing on knowledge and wisdom to the next generation (Golding & Foley, 2017; Tabuchi & Miura, 2015) to social activism (Narushima, 2004) and to a form of narratives on “lessons from experiences of failure” emphasizing altruism and self-sacrifice (Tabuchi & Miura, 2015, p. 129). Krašovec and Gregorčič (2017) assert that older people may view their involvement in community as “investment into future generations” (p. 417).

Figure 1. The concept of later life learning in generativity context



Research on generativity from the social gerontology perspective relates continued intense activity in later life with the continuity of (professional) identity or commitment to socially important behaviour (Stergios & Carruthers, 2002; Warburton & Gooch, 2007; Borrero & Kruger, 2015). Stergios and Carruthers (2002) in their study identified that continued engagement in an area of

activity related to one's pre-retirement profession is associated with continuity of identity. Warburton and Gooch (2007) associate engagement in volunteering with „ecological identity”. Borrero and Kruger (2015) identified significant identity components which remain consistent from work to retirement in retired professional women's post-retirement activity in the form of part-time or volunteer work. Seeking to impact the lives of others in positive ways and „being of value to the world” were identified as distinct aspects of retired professional women's identity during retirement (p. 323). Research evidence on older adults shows that preservation of human values, traditions and culture are strong sources of meaning of life in later life (Pinquart, 2002, p. 92). Continued intense activity in later life may also be justified by “busy ethic” (Ekerdt, 1986, as cited in Choi, 2009, p. 848), when older adults engage in voluntary activity as socially important, ethical behaviour. Golding and Foley (2017) found in their research focused on intergenerational learning in informal community settings that older men engage in learning through their involvement in mentoring, sharing skills with disengaged young people in the community's Men's sheds. Engagement in generative activity is an antecedent of learning due to the importance of such engagement in an older person's life (Field, 2003), and continued learning is associated with some aspects of the roles they adopt in generative activity (Borrero & Kruger, 2015).

Previously gained competence

The meaning of learning in later life is related to everyday competence and personal achievement (Lysack & Steipke, 2002; Pinquart, 2002; Stergios & Carruthers, 2002). Pinquart (2002) asserts that high levels of competence “promote the execution of and the success in activities that are sources of purpose in life” (Pinquart, 2002, p. 92). Older adults' engagement in generativity is related to retaining occupational competence (Lysack & Steipke, 2002) and further development of expertise and skills from pre-retirement profession (Stergios & Carruthers, 2002). Competence may be embedded in an older person's wisdom acquired through life experience (Golding & Foley, 2017). Golding and Foley (2017) in their study of men's generativity in the form of mentoring found that generative behaviour requires the older men to be “contemporary in their worldviews drawing from a deep knowledge and wisdom developed informally over their life experiences” (p. 56). The generative grandfathering conceptual framework proposed by Bates (2009) focuses on aging men developing the relationship with grandchildren drawing on their understanding of grandfathering learnt from earlier generations (Bates, 2009; Bates & Goodsell, 2013).

Social environment influences

Interactions between different generations of elderly people enable older adults to “accept their own life” (Tabuchi & Miura, 2015; p. 129). Tabuchi et al. (2015) researched the effects of perceived attitudes from younger generations on older people's generativity and found that generativity development is affected by positive intergenerational interaction resulting in perceived appreciation whereas perceived rejection may negatively affect the development of generativity. Intergenerational interactions may provide opportunities for growth in perceived generativity (Ehlman et al., 2014). Older learners' generativity concerns imply mutuality in the form of opportunities for the younger generation to assist and support the parents and grandparents in learning (to use technologies) (Russell, 2007, p. 380).

Krašovec and Gregorčič (2017) in their study of learning through community participation in Slovenia assert that communities may become a space for learning providing opportunities for

behavioural and value exchange between generations through participation in the democracy process. Narushima (2005) suggests that involvement in social activism provides to older adults social and collective learning environment to „cultivate their creativity, critical thinking, sense of self-liberation, and well-being” (p. 41). Buffel et al. (2012) emphasize the role of neighbourhood as a learning space for informal later life learning through older people passing on history, tradition and culture. Pinquart (2002) in his meta-analysis of purpose in life in old age, based on analysis of a large body of empirical research, found that purpose in life is largely associated with social integration, and the quality of relations in particular. The quality of social ties with family and friends provide more opportunities for older people to be useful by doing things for them and stimulates activities which become a source for purpose in life (Pinquart, 2002, p. 93). Having lost their work roles, retired people become involved in new roles as a compensatory strategy (Carter, 1995). Older adults may find more opportunities in their roles of family members and friends, and put more emphasis on those roles as sources of meaning (Pinquart, 2002, p. 103). It may be postulated that shifting emphasis on generative roles within one’s immediate environment of family and friends provides an elderly person with more opportunities to act purposefully and to manage challenges presented by the demanding aspects of the new roles. This in turn may enhance one’s development by engagement in activities which require acquisition of new competences or further development of one’s abilities. The need for belongingness, mutual and moral obligation and value in relationships stimulates older adults to take “responsibility for sharing and contributing and participating for the greater good, for the good of both the self and others” (Russell, 2007, p. 379). However, some research evidence shows that the role of family in an older person’s life may be peripheral when the older person does not perceive the family as an important source of either instrumental or emotional social support (Birrner-Hardwick & Greenwood, 2017). As Neikrug et al. (1995) study of old-old learners in Israel showed, older adults may be „more involved in the planning and directing their own lives than in the routines of familial responsibility or the care of children, grandchildren or great-grandchildren” (p. 354).

Attributes

Concept analysis based on the literature review showed that the attributes of older adults’ learning in generativity-related contexts include informed participation-based motivation, empowerment, varied informal learning experience, and reflection.

Informed participation motivation

Literature review shows that informed participation in generative activity is a major motivation factor for older adults’ engagement in learning. Learning may be motivated by desire to contribute to the community and improve it for future generations (Lear, 2013; Parisi et al., 2009). Lear (2013) asserts that older people are motivated for learning by strong generative impulses - older women in the study needed to engage in substantial learning to be able to express their generative agency. Parisi et al. (2009) found that older adults’ learning through participation in teaching and mentoring is motivated by their desire to “support children’s academic and personal development” (p. 874). Strom and Strom (2011) argue that in terms of intergenerational relationship development of wisdom in older adulthood encompasses an awareness of the needs of younger generations and “ways to support the attainment of their goals” (p. 921). Learning may be motivated by the need to understand the function of the generative activity (Stergios & Carruthers, 2002; Krašovec &

Gregorčič, 2017). Stergios & Carruthers (2002) in their study of volunteering in the teaching domain identify “understanding the children of today” as a motivational aspect associated with “the desire to continue learning about children and the issues they face” – “getting a new insight into today’s youth” (Stergios & Carruthers, 2002 p. 349). Krašovec and Gregorčič (2017) assert that through community involvement older people are provided with an opportunity to learn about younger generations and their values. Both new learning of a particular issue and using one’s knowledge and skills may serve as motivation (Stergios & Carruthers, 2002; Bradley, 2003; De Espanes et al., 2015). As pointed out by Bradley (2003), the opportunities for learning should meet the older person’s expectations of „learning a new skill or activity, revisiting an old experience, or carrying knowledge to another generation” (p. 49). Stergios and Carruthers (2002) suggest that continuity of professional identity motivates older people to continue engagement in an area of activity related to one’s pre-retirement profession to make use of the expertise acquired through professional career.

Merriam and Mohamad (2000) point out the communal nature of learning motivation - engagement in learning is motivated by a desire to benefit others and for improving community through being good role models, through volunteering, and through engaging in social-action agendas. Krašovec and Gregorčič (2017) point to the intergenerational dimension of learning through participation which includes a need for development of knowledge of constructive discussion; ability to make collective decisions; ability to engage in teamwork and cooperation; ability to achieve consensus; ability to resolve conflicts, ability to intergenerational exchange; strengthen intergenerational cooperation; ability to relate to neighbours (social skills); concern for the problems of the neighbourhood (p. 409). The intergenerational dimension is reflected in the reciprocal relationship between generativity and learning may be expressed in the “learning for and through generativity” paradigm. Thalhammer (2012) argues that supervision of grandchildren as well as cultural participation is major motivation for older adults learning in the form of exchange with younger people (p. 171).

Empowerment

The empowering nature of older people’s learning is represented by the emancipatory, personal growth and competence development paradigms. Krašovec and Gregorčič (2017) identified the primarily emancipatory nature of learning through civic engagement. The emancipatory paradigm is extensively explored by Narushima (1999, 2004) in her studies of community volunteering and social activism. In her study of the influence of social activism on women’s later life learning Narushima (2004) examines later life learning from the interdisciplinary ‘feminist life-span perspective on ageing’ perspective including adult development, critical gerontology and women’s studies. The findings of the study show that engagement in collaborative and creative political activities facilitate later life learning and empowerment. Participation may be viewed as emancipatory as an older person engages in learning as “an on-going process of self-actualization and liberation” (Narushima, 2004, p. 38).

Older people are motivated for learning by the need to achieve personal growth (Narushima, 1999; Bradley, 2003; Warburton & Gooch, 2007; Lear, 2013), self-realization (Lear, 2013) and self-actualization (Narushima, 2004). Narushima (2004) argues that the goals of later life development are associated with psychological and spiritual growth and self-actualization through development of „ego-integrity” and „transcendence” (p. 39). Older adults’ development and growth is reflected in „the adaptive process of making sense of one’s experience to integrate oneself firmly in relation to

others and society” (Narushima, 1999, p. 19). Narushima (2004) asserts that in her research older women strive to be ‘somebody’ which encompasses the “quest for an authentic self and spiritual growth” in spite of the ageism they face (p. 39). Lear (2013) proposes that older people are motivated for learning by search for “new ways of living to balance the complex and often conflicting demands placed on them” (p. 380). Narushima (2000) in her study of community volunteering associates the motivation of community volunteering with older adults’ learning needs defined by McClusky (1974) - coping, expressive, contribution, influence, and transcendence.

Competence development is an important factor of empowerment in later life generativity (Lysack & Steipke, 2002; Kruse & Schmitt, 2012; Villar & Serrat, 2014). Villar and Serrat (2014) assert that engagement in generative activities in later life facilitates competence development. Lysack and Steipke (2002) suggest that elderly women construct and communicate images of competent occupational selves in the “feminine sphere” (i.e. traditionally female tasks) motivated by the need for public representations of the self to others. Being concerned about maintaining their desired levels of occupational performance, in this productive domain women learn of satisfactory ways to compensate for the activities they can no longer perform by redefining and reconstituting the boundaries of their occupational self to match the current situation – reducing the level or restricting the range of activities (p. 137). Kruse and Schmitt (2012) emphasize the life competences built through engagement in generativity. The life competences may be defined as physical and cognitive strategies, knowledge systems, ethical judgments, „willingness and readiness to take responsibility for oneself, for others and for society” (p. 2). They assert that life competences are built through effective coping with challenges of aging including practical, psychological, interpersonal and ethical issues (p. 2).

Multiplicity of informal learning models (experiences) in generativity

A large body of research on generativity identifies informal learning as the main type of learning in the generativity context. Duguid et al. (2013) argue that informal learning is a lens through which the learning activity of volunteers should be explored (p. 24). Lear (2013) in her study of third age women learners in Australia identified the implicit, tacit, experiential and incidental nature of learning in civic engagement. Schugurensky and Myers (2008) in their study of older adult learning through engagement in democracy (local governance) found that learning is mostly tacit - unintentional and unconscious (p. 90) when participants learn through doing and observing the activities in the political processes. The experiential nature of adult learning within an existential framework (Jarvis, 2004, p. 105) is evident in older adult learning (Narushima, 2000; Piercy et al., 2011). Narushima (2000) suggests that older adults engage in self-directed study, problem-solving and communication with others as the ways of learning in volunteering with inherent experiential and holistic nature of learning experiences. Krašovec and Gregorčič (2017) identified learning through civic participation as informal, activist, and authentic. The self-directed nature of learning through generativity has been identified as a significant dimension of later life learning (Narushima, 2000; Roberson, 2005a; Warburton & Gooch, 2007; Schugurensky & Myers, 2008). However, there is limited research on generativity showing that older people relate their generative activities with their own learning (Warburton & Gooch, 2007). Schugurensky and Myers (2008) identify learning as self-directed when the participants consciously learn about particular issues or incidental (unintentional but conscious) when the participants were able to identify and articulate learning taking place. Duguid

et al. (2013) also point to both conscious self-directed and planned learning and unconscious learning in the form of socialization taking place. Serrat et al. (2016) suggest that informal learning in the political participation domain involves self-directed learning as conscious and intentional learning. Self-direction in learning is closely linked with self-sufficiency and being in control of one's own life - internal „locus of control". The link between generativity and self-directed learning in later life has been pointed out by Roberson (2005a). He examined the familial expression of generativity proposing that "generative action motivates the older adult to utilize self-directed learning to help meet the needs of their family" (p. 230). Roberson's (2005a) study showed that children and grandchildren may become like a personal project of learning for older adults, who are "intensely interested and eager to assist in any way possible to help their offspring to succeed" (p. 230). Sears (1989) in her study of self-directed learning projects of older adults stated that in her study older adults perceived their learning to be of significant benefit to others. Narushima (2000) suggests that older adults increase specific knowledge about social issues and self-knowledge through self-directed study (e.g. taking courses or reading books on related issues). The empirical research relating to older adults' learning through generative engagement demonstrates a variety of informal learning experiences ranging from instrumental learning as acquisition of specific competencies to personal growth (Narushima, 1999, 2000, 2004, 2005; Piercy et al., 2011; Schugurensky & Myers, 2008; Serrat et al., 2016).

Literature review shows that there are a number of learning paradigms associated with generativity representing different perspectives on the learning process including instrumental learning (Narushima (2000, 2005; Serrat et al., 2016), social learning (Narushima, 2004, 2005; Serrat et al., 2016; Krašovec & Gregorčič, 2017; Yuan et al., 2018), critical and political learning (Serrat et al., 2016), communicative learning (Narushima, 1999, 2000; Schugurensky & Myers, 2008; Piercy et al., 2011; Lear, 2013; Golding & Foley, 2017; Krašovec & Gregorčič, 2017); transformative learning (Narushima, 2005; Warburton & Gooch, 2007; De Espanes et al., 2015). Instrumental learning encompasses acquisition of skills needed for generative activity. Narushima (2005) points out instrumental learning through volunteering. Older volunteers may undergo a variety of informal learning activities, encompassing four categories of volunteer work-related informal learning: communication skills; knowledge about social issues; organizational/managerial skills; interpersonal skills (Narushima, 2000). Serrat et al. (2016) define instrumental learning as development of a variety of skills and abilities including acquisition of practical and technical skills, and improved communication skills and confidence through participation. Social learning is associated with development of "communication, trust, respect, compassion, and openness" (Serrat et al., 2016, p. 171). Social learning through democratic participation (Serrat et al., 2016) encompasses recognition of social harmony and integration into the community and learning about the value of community and relationships. The elements of social learning include "the ability to listen to and respect others' opinions, a sense of solidarity with and awareness of others, recognition of the importance of social harmony, appreciation for the companionship of others, and integration into the community" (p. 176). Social learning may occur through activity in different domains including volunteering (Narushima, 2005) or social activism (Narushima, 2004). Krašovec and Gregorčič (2017) Older adults' social learning (Bandura, 1986) encompasses consideration of others' views and accepting tolerance, awareness of and helping others, and the feeling of connectedness. Social learning through civic participation entails collaborative planning, sharing knowledge, internalizing the meaning of social actions, becoming empowered and therefore initiating new actions, i.e. learning about engagement in community (Krašovec & Gregorčič, 2017, p. 416). Engagement in coproduction provides

opportunities for social learning (Yuan et al., 2018) through observation and building awareness of one's potential to contribute in coproduction. Older people may coproduce the opportunities for social and informal learning by sharing lifelong practices (Yuan et al., 2018, p. 239). Coproduction may include intellectual activities of sharing experience, exchanging skills, or discussing a variety of topics. Yuan et al., 2018 Participation in coproduction may also serve as a mechanism for social learning from each other about aging and maintaining health (p. 241). Critical learning through political and civic engagement involves "analysis of one's own politics, values, and priorities, and those of society" (Serrat et al., 2016, p. 171). Volunteering may provoke critical reflection about social issues (Narushima, 2000, 2004), Social activism provides "a social and collective learning environment" to develop critical thinking (Narushima, 2004, p. 41). Serrat et al. (2016) define political learning as "philosophical and practical development in relation to the political context of participation" which includes "an enhanced understanding of the social and political reality of their community, an appreciation of the value of collective action, and an enhanced ability to be assertive and defend their rights" (p. 177). Volunteering may provide opportunities for communicative learning (Mezirow, 1996) - through interaction with others, solving problems and gaining new information. Narushima (2000) identifies the role of volunteering as providing "a supportive setting for life review" (p. 5) as constant examination of themselves and others to achieve "integrative understanding of his/her experience as a guide to action" (Mezirow, 1994, p. 226, as cited in Narushima, 2000), which may help older adults to better understand themselves, their goals and meanings of life. The communicative nature of learning fostered by volunteering may help an older person „confront the dilemmas associated with aging" and shift old assumptions about themselves and the world (Narushima, 1999, p. 19). The generativity-related interpersonal contact may facilitate development of understanding and acceptance of others (Piercy et al., 2011). Lear (2013) in her study of third age women learners in Australia found that civic engagement contributes to personal development in later life providing opportunities for learning through community interactions (p. 382) when older individuals learn „by cultivating their personal power and social effectiveness" (p. 380). Schugurensky and Myers (2008) found that "talking to people" - with some experience or expertise on specific issues, knowledgeable about the issues of older people was the most common strategy invoked by participants in their study (p. 88). Krašovec and Gregorčič (2017) identified learning occurring through 'exchange of experiences, opinions, connectedness, collective deliberation, ability to understand problems directly, awareness that one can contribute to equality, openness to different people' (p. 416). Golding and Foley (2017) found communicative learning in older men's mentoring activity, which resulted in the development of relationships with a younger generation based on friendships, respect and affection. Their knowledge may be perceived as "developmental building from one generation to another" and situated as contemporary (p. 62). Narushima's (2005) study of older adults' volunteering in Toronto, Canada, identified transformative mechanisms, which provided opportunities for older people to sustain their self-esteem and sense of wellbeing. In scholarship on generativity there is an element of transformative learning identified in generativity resulting in the individual's change (Narushima, 2005; Warburton & Gooch, 2007; De Espanes et al., 2015). Transformative learning takes place when an individual has to resolve the generativity versus stagnation crisis (Erikson et al., 1986). Learning in later life may be a major way to transform generative concerns into generative behaviour (De Espanes et al., 2015). Warburton and Gooch (2007) argue that the participants in their study demonstrated „transformative learning" in the development of grand-generativity as mentoring and teaching young people (p. 52).

Reflection on one's learning in generativity

Learning in generativity context may not be explicitly stated or perceived by the older people themselves (Duguid et al., 2013). Duguid et al. (2013) point to “a continuum of consciousness of the learning experience” (p. 26) encompassing both conscious learning experiences, and unconscious learning which may become conscious through further reflection. Schugurensky (2002) asserts that learning is intrinsic to civic participation, though it may not be explicitly stated or verbalized (Schugurensky, 2006). Older people may be aware of their learning taking place in the participatory process (Krašovec & Gregorčič, 2017), but they may have difficulty articulating the learning in their involvement (Schugurensky & Myers, 2008, p. 90). Warburton and Gooch (2007) found that older participants linked environmental volunteering „with their own learning and understanding” (p. 52). Pfahl (2012) points out critical reflection and narrative refraction as learning experience stimulated by older adults' developmental desire to leave a legacy. The learning in later life becomes developmental, when an older person objectifies and reflects on experience, internalizes its meaning, and acts constructively to change thus integrating “a lifetime of experiences into meaningful narrative legacies” (p. 81). Parisi et al. (2009) propose that mentorship entails learning through reflection on one's life experiences, synthesizing and utilizing them.

Consequences

Personal growth

In the generativity research there have been a number of studies that identified the impact of generativity on personal growth as a learning dimension (Narushima, 1999; Warburton & Gooch, 2007; Piercy et al., 2011). The process of learning allows older volunteers to „enter into a constructive process of self-integration”, self-growth and self-actualization (Narushima, 1999, p. 17). Urrutia et al. (2009) study of generativity of older women in Argentina gives evidence about presence of learning in performing extra-familial social roles in volunteering and the integrity of the self as an outcome of generative development. Warburton and Gooch (2007) in their study of environmental volunteering in older adulthood identified that learning may result in development of an ecological identity and understanding of the lifecycle. Piercy et al. (2011) study demonstrated the impact of volunteering experiences on finding existential meaning, understanding the complexity of the world and developing emotional resiliency. Narushima (2000) proposes that learning through volunteering may result in personal growth including individual autonomy, “cultural generativity”, “ego-integrity” and “transcendence” which is in line with the developmental tasks in later adulthood promoted by Erikson et al. (1986) and Kotre (1984). Lear (2013) proposes that the outcomes of learning through civic engagement entail development of “a new consciousness of self”, one's life and the world (p. 380), increased self-confidence and self-efficacy. Productive activity in the form of gardening (horticulture) provides opportunities for the development of creativity, self-expression and self-esteem, and intellectual stimulation, and has „the potential to reach the depths of one's spirit and offer insight and lessons into living, life, and transitions” (Wang & MacMillan, 2013, p. 154). Personal growth may be reflected in the development of wisdom as “altered personal perspectives with lessened materialism and self-focus, greater appreciation of cultural differences and finding existential meaning in service” (Piercy et al., 2011, p. 550). Wisdom may be enhanced by intergenerational interactions in teaching and mentoring a younger generation (Parisi et al., 2009). Personal growth may also be represented by development of a new, more authentic identity to take

participants into old age (Lear, 2013, p. 389). Villar (2012) argues that “generativity implies personal development, since generative activities and goals give meaning to people’s lives and are a way of boosting their competences, skills and interests, which, in turn, broadens the range of generative activities that people may gain access to” (Villar, 2012, p. 1098).

Personal competence development

A large body of research on generativity provides evidence of competence development through participation in different domains. Personal competence development may be facilitated by generative engagement with the young generation through teaching and mentoring (Stergios & Carruthers, 2002; Parisi et al., 2009), or generative maintenance of the family (Villar et al., 2012). Learning may result in refinement of “interpersonal skills, leadership and mentoring ability” (Parisi et al., 2009, p. 874). Participation in community processes may result in gaining the competences which are necessary for “social solidarity, intergenerational cooperation, awareness of others and social harmony” (Krašovec & Gregorčič, 2017, p. 417). Duguid et al. (2013) found that the learning outcomes were associated with acquisition of knowledge relating to the nature of activity and social realities, development of skills including instrumental, interpersonal and communicative skills and political efficacy. The outcomes of learning through civic engagement may result in changes in the participants’ attitudes, knowledge and skills (Lear, 2013; Serrat et al., 2016) or discovering previously undeveloped abilities (Lear, 2013, p. 388). It may also lead to a sense of community and connectedness, deeper understanding of the importance of developing relationships with neighbours “in the face of difference and conflict”, sense of confidence and assertiveness, and relational and practical skills (Serrat et al., 2016, p. 182). Schugurensky and Myers (2008) found that older participants’ self-perceived changes were associated with acquisition of specific information or adoption of new insights or attitudes rather than acquisition of competencies (p. 87). Yuan et al. (2018) propose that continuous learning in coproduction of intellectual activities in later life maintains older adult mental abilities and purpose of life (p. 239).

Establishing one’s role

Learning may produce meaningful experiences which occur through active engagement with the world and establishing oneself as a social being (Wenger, 1998). Narushima (1999) defines learning through generativity as a „process of progressive realization of an individual’s full potential”, which leads to „a deeper understanding of society, and a heightened level of social integration” (p. 19). Older people may value learning not only as a means of personal growth but also as „a force for personal emancipation” (Field, 2003, p. 153). Literature review shows that learning is reflected in the emancipatory changes older people undergo through their engagement in generativity in different domains (Narushima, 2000; Stergios & Carruthers, 2002; Birrer-Hardwick & Greenwood, 2017). Generative engagement allows older volunteers to develop a better understanding of their roles in relation to others and society (Narushima, 2000) and facilitates expression of the sense of self (Stergios & Carruthers, 2002, p. 353). The agentic mode of generativity may be expressed in the development of generative action utilizing learning to modify generative feelings and behaviour by “contouring social interests and feelings of agency” (Keyes & Ryff, 1998, p. 231) or personal development directed towards strengthening the self (Villar, 2012). Learning in volunteering may result in change of an older person’s behaviour and perspective, gaining more assurance (Narushima, 2000) and contribute to older adults’ expression of agency in their contexts and social networks

(Villar, 2012). Villar (2012) points out to the nature of generativity in older adults, which represents “contributing to the maintenance and enhancement of the contexts” in which older adults participate, “reinforcing social institutions, enriching the social network and ensuring continuity across generations” (p. 1095). Warburton and McLaughlin (2006) in their research of older Australians found that older people play a significant role in maintaining and promoting their culture and providing community support. In grandfathering older people develop ways for growth and enhancement of intergenerational relationship (Bates & Taylor, 2013). Narushima (2004) found that learning impacts changes in older women through their participation in social activism. Generative activity facilitates upholding certain personal values and setting examples for others (Birrer-Hardwick & Greenwood, 2017) and also has a positive impact on age-adaptive processes (Villar & Serrat, 2014; Kruse & Schmitt, 2012).

Summing up

The literature review allowed identifying the major dimensions of later life learning in generativity context. The identified dimensions include the factors influencing learning (antecedents), the main components of the learning process (attributes), and the meaning of learning through generativity in older adults’ lives (consequences) (see Figure 1). The factors affecting learning in generativity context include generative engagement, previously gained competence and social environment influences. The characteristic features of generative engagement are associated with affirmation of one’s life, generative person’s identity and commitment to socially important, ethical behaviour. Previously gained competence is important to learning in respect to high levels of competence, wisdom developed over life experiences and learning gained from previous generations. Positive influences of the social environmental are associated with positive intergenerational interaction, community as space for learning and identification of purpose in life through social integration. The attributes of the learning process through generativity include informed participation motivation, empowerment, informal learning experiences and reflection. Informed participation related motivation is represented by desire to contribute to the community and improve it for future generations, understanding the function of the generative activity, new learning of a particular issue and using one’s knowledge and skills and intergenerational participation. The empowerment dimension of learning is expressed in the emancipatory nature of learning, personal growth, self-realization, self-actualization and competence development. The varied components of learning experiences reflect informal learning as the main type which is characterized by self-directed and transformative nature and includes instrumental, social, critical and political, and communicative learning. Reflection as an attribute of learning is associated with both unconscious and conscious learning experiences, enhancement of learning awareness and developmental learning. The consequences of learning are expressed in personal growth, competence development and establishment of one’s role. Personal growth in later life is associated with self-integration and wisdom. Competence development is represented by teaching and mentoring competence, social competence, changes in attitudes, knowledge and skills, discovering previously undeveloped abilities and adoption of new attitudes. Establishment of one’s role is associated with emancipatory changes, expression of agency in one’s environment and positive impact on age-adaptive processes.

The literature review shows that recently there has been limited research on older adults’ generativity in the perspective of the relationship between generativity and personal development or relationship between generativity and learning in later life. Personal development is inherent part of

engagement in generativity and learning is embedded in this engagement in the way it facilitates achievement of generativity-related goals through informed participation and competence development. Learning can stimulate older adults' engagement in generativity, and the dynamics of learning and engagement in generativity shows that generative activity may stimulate further learning needs.

The literature review shows that empirical studies of generativity in later life adopt both quantitative and qualitative approaches. From the qualitative research perspective, there have been studies exploring the expressions of generativity by means of standardized instruments including the scales developed by McAdams and de St.Aubin (1992), and the older age specific scales by Schoklitsch and Baumann (2011). The methodologies employed in qualitative studies include grounded theory (Bates & Goodsell, 2013; Kleiber & Nimrod, 2008; Lysack & Steipke, 2002), case studies (Krašovec & Gregorčič, 2017; Narushima, 1999, 2004), phenomenological approach (Borrero & Kruger, 2015; Warburton & Gooch, 2007) and thematic analysis (Birrer-Hardwick & Greenwood, 2017; Flynn, 2001; Piercy et al., 2011; Stergios & Carruthers, 2002; Yuan et al., 2018) mainly based on data collected through individual or focus group interviews.

Generativity provides framework for investigating the process of self-directing one's learning through engagement in generativity. Application of the generativity framework to the study of later life learning may prove more useful when it highlights the dynamics of the interrelationships between the processes of generativity and learning. Adoption of this integrative perspective allows linking the motivational, behavioural and narrative aspects of generativity with the motivation, strategies and outcomes (antecedents, attributes and consequences) of learning in later life.

2 METHODOLOGY OF THE RESEARCH ON THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS

2.1 Methodological basis for research

2.1.1 The congruence between ontological and epistemological assumptions and research paradigm

The epistemological and ontological assumptions underlying the researcher's stance guide the researcher approach to the study and the choice of a research paradigm (Denzin & Lincoln, 2011). In this chapter I will formulate my stance on the epistemological and ontological foundations of the present study and the methodological assumptions which informed and guided the design of and conducting the grounded theory study.

Ontology explains "the nature of reality and the nature of the human being in the world" (Denzin & Lincoln, 2005, p. 183). The relativist ontology, which guides the present study, postulates that the purpose of scientific inquiry is to understand the subjective experience of multiple realities, which come from unique interpretations of experience by individuals. Epistemology explores the nature of knowledge and methods of learning about the world. The epistemological inquiry investigates the way people acquire the knowledge and make sense of the world (Denzin & Lincoln, 2005). The researcher's epistemological stance significantly impacts the choice of research methodology, the framework and strategies. Epistemological clarity leads to "well-defined and epistemologically congruent research outcomes (Fernandez, 2015, as cited in O'Conner et al., 2018). However, some grounded theorists advocate epistemological flexibility arguing that epistemology is irrelevant, and grounded theory may be used by researchers with different epistemological stance, and the choice is based on the researcher's stance and a specific research project (O'Conner et al., 2018). The subjective epistemology, which guides the present study, assumes that knowledge is value laden and "filtered through the lenses of language, gender, social class, race, and ethnicity (Denzin & Lincoln, 2005, p. 21). The relativist ontology based on the assumption that reality exists only through subjective experience and subjective epistemology are associated with the interpretivist research paradigm. The relativist ontology and subjectivist epistemology align with the qualitative research paradigm in terms of its focus on the phenomena related to a specific area of inquiry as embedded in the participants perceptions and experiences within their social worlds. Acknowledgement of subjectivity of reality, and its uniqueness in terms of participants' social worlds reflects (are compatible with) the relativist ontological assumptions. The collaboration between the researcher and participants, and emphasis on participants' meanings are related to subjectivist epistemological assumptions. Interpretivist research paradigm is guided by the researcher's beliefs about studying the world (Denzin & Lincoln, 2005).

In the present study, I adopted the (interpretive) qualitative research paradigm due to the lack of research revealing self-directed learning in later life, with the view that qualitative research renders

the potential to advance understanding of the lived experiences of the older adults engaging in their self-directed learning. The quantitative paradigm was rejected due to its focus on causative relations and generalizability of findings, which was considered inappropriate for the purposes of the study of a phenomenon which has been relatively scarcely researched. The qualitative research paradigm allows the researcher to gain understanding of human experiences by disclosing their subjective meanings in particular contexts of social reality (Creswell, 2007; Flick, 2009). Qualitative research combines three major elements: (1) exploration of individual experiences, (2) description of the phenomenon and (3) theory development (Vishnevsky & Beanlands, 2004). Qualitative research is based on an enquiry tradition where the researcher is trying to “develop a complex picture of the problem or issue under study” through “reporting multiple perspectives, identifying the many factors involved in the situation” and presenting it as a holistic picture, the establishment of which is aided by a visual model of many facets of a process or a central phenomenon” (Creswell, 2014, p. 235). Following the modern approach to qualitative inquiry, when studying social phenomena, the “analytic focus should be on complexities, relationalities and ecologies explicitly situated in space and time” (Clarke, 2019, p. 12).

The choice of methods and processes of the grounded theory study was guided by their congruence with the interpretive research paradigm. The grounded theory, if viewed from the relativist ontology, assumes that the researcher is unable to fully understand and reconstruct the reality (Corbin & Strauss, 2008). In the interpretivist perspective, the reality can only be learned through representations, as knowledge is relative and represents the reality through individual interpretations (Denzin & Lincoln, 2005). Acquisition of the knowledge about the external reality is affected by individual reflection and interpretation, and meaning comes from the subject and is imposed on the object (Corbin & Strauss, 2008). The interpretive paradigm of qualitative research is “supported by and dependent upon a line of thought that is orientated towards meaning, context, interpretation, understanding and reflexivity” (Knoblauch et al., 2005, p. 5). The grounded theory methodology allows for understanding human behavior and social phenomena based on reflexivity and interpretation (Denzin & Lincoln, 2000). The interpretive research paradigm, which underlies the design of the present study as a qualitative research, requires the researcher to adopt a reflective attitude towards the research process and participants’ interpretation of the meanings of their experiences. As pointed out by Corbin and Strauss (2008), the subjectivist interpretive foundation of the grounded theory suggests that the researcher is part of the theory emergence process, in which he/she identifies and defines the emergent theory. The researcher plays an active role as the key research instrument characterized by reflexivity and interpretation.

Grounded theory can be viewed as “a theory/methods package with an interpretive, constructionist epistemology” (Clarke, 2003, p. 559). In the present study, the researcher adopted the constructivist view that research study is constructed to the purpose of the research problem and aim to inductively reveal the subjective interpretation of the participant experiences of and meanings they attribute to their self-directed learning. The present study followed inductive reasoning as a major assumption of qualitative research, which represents looking for meaning from experiences of the research subjects. “The constructivist view assumes an obdurate, yet ever-changing world but recognizes diverse local worlds and multiple realities” and aims to show “the complexities of particular worlds, views, and actions”. (Charmaz, 2006, p. 132). The social constructivist assumption that people construct a social model through a process of describing and explaining, which is used to

make sense of their experience, underlies the purpose of scientific inquiry to explicate this process (Gergen, 1985 as cited in Leeds-Hurwitz, 2006).

Detailed description of the phenomenon and a holistic approach are inherent elements of qualitative research (Denzin & Lincoln, 2000; Bogdan & Biklen, 2007; Flick, 2009; Creswell, 2014). In the present study, the qualitative research paradigm allowed establishing pre-conditions to collect data from the field of research which served as a basis for a thorough description of the phenomenon and emergence of the theory revealing the variety of self-directed later life learning practices in generativity-based contexts.

2.1.2 Philosophical positioning: social constructivism

Self-directed later life learning and social constructivism

The assumptions which guided the choice of qualitative research were rooted in both the interpretive research process and the constructivist theoretical perspective of learning. Understanding of the learning process in older adulthood in the present study is informed by constructivist ontology and subjective interpretive epistemology. The social constructivist theory (Berger & Luckmann, 1991; Saraga, 1998) views the reality as a social construct created by means of language as an important sign system which reflects reality (Berger & Luckmann, 1991). The knowledge is based on transaction and subjectivity (Denzin & Lincoln, 2000). The constructivist research perspective assumes the “relativism of multiple social realities”, and aims at “interpretive understanding of subjects’ meanings” (Charmaz, 2000, p. 510). Strauss and Corbin (1998) supported the constructivist paradigm proposing that “analysis is the interplay between the researcher and the data” (p. 13). The phenomenon of self-directed learning in later life is interpreted in the perspectives of the research participants, which become the basis for the theory constructs (Bryman, 2008). The understanding and articulation of experience of ageing in relation to personal development is created through communication between the participants and the researcher at the interview, and then interpreted and re-constructed by the researcher. The analysis of the constructs and their meanings allows to understand the subjective views of themselves and the environments of the participants.

Constructivism as a philosophy of education is adopted as the epistemological frame of the present study. Viewed from the constructivist perspective, the learning process is socially constructed. The construction of knowledge is linked with the individual’s experience and active role in creating the environment and the self. The constructivist paradigm in adult education and learning theory has been proposed by prominent scholars (Caffarella & Merriam, 1999; Mezirow, 1991). The constructivist approach has been suggested for the study of self-direction in later life learning by some leading adult education theorists (Candy, 1989, Illeris, 2003). The constructivist self-directed learning may be viewed as “a process of constructivist understanding and development towards a more holistic being within a lifespan perspective” (Kasworm, 2011, p. 24). The learner personality and perspective may undergo transformation through the processes of interpretation and appropriation of knowledge (Mezirow, 1991). Learning in later life may be viewed as becoming (Hodkinson et al., 2008), when the learners undergo a process of personal construction and reconstruction adapting to the new age-related circumstances. Older adults construct their learning and personal development based on their perceptions of meaning, themselves and the learning process as related to the learning environment. Viewing learning in later life from a constructivist perspective (Tusting & Barton, 2006), the meaning

of learning to the aging individual is emphasized and linked to their lives and self in specific social and cultural contexts. Thus, the older adults' lifestyle and environment become significant to learning. Constructing knowledge from their daily life (Jarvis, 2012), older adults develop specific learning patterns, which may be affected by the individual's learning space, and the challenges arising from the social environment if combined with the availability of personal and external learning resources (Schmidt-Hertha, 2013). Some recent research on later life learning showed older adults constructing practical knowledge, based on informal life experiences (Kimberley et al., 2016), and engaging in constructing identities for later life (Carragher & Golding, 2015). Based on the social constructivist paradigm, ageing is viewed as a social construct, which encompasses social processes and interactions. Ageing is constructed through human relationships embedded in certain time periods and cultural contexts (Johnson, 2005).

2.1.3 The rationale for research design as an evolved grounded theory study

A solid understanding the research design and development of an outline are the primary prerequisites of undertaking a research study. The researcher must explicitly define the research process taking into account important considerations of the research methodology and its development throughout the research process to ensure achievement of the research objectives. In the present study, the outline of the grounded theory research methodology relies on the works of Glaser and Strauss (1967), Glaser (1978), Strauss (1987), Strauss and Corbin (1990), and later developments of grounded theory in Clarke (2003, 2005, 2019), Charmaz (2006), Birks and Mills (2015), Holton (2010), Timmermans and Tavory (2012).

The grounded theory as methodology encompasses creating a new theory to explain the process by which something occurs (Charmaz, 2006). For the purposes of the present study, I adopt the grounded theory methodology definition proposed by Bohm (2004): "On the basis of empirical research in a particular object area it makes it possible to formulate a valid theory for this area consisting of interrelated concepts and suitable for the production of a description and an explanation of the social phenomena investigated" (p. 270). Since its introduction by Glaser and Strauss (1967), the grounded theory methodology has been subject to elaboration due to the impact of a variety of theoretical and methodological developments, and scholars using grounded theory have "ranged from positivist to social constructivist" (Clarke, 2003, p. 559). Clarke (2019) distinguishes Glaserian GT as positivist and objectivist, Straussian GT as constructionist, interactionist and interpretivist, and Constructivist GT in Charmaz's interpretivist innovations (Clarke, 2019, p. 11). The main differences distinguishing the approaches include: (1) the philosophical position of the researcher; (2) the use of literature; (3) coding and theory development (Chun Tie et al., 2019, p. 7).

The philosophical position of the grounded theory researcher

As pointed by Birks and Mills (2015), the first generation of grounded theorists only focused on strategies and techniques rather than identifying the methodological grounding. The original position of grounded theorists was expressed as an objective researcher accurately representing external reality (Charmaz, 2000), which was later associated with the postpositivist paradigm characteristic of ontological critical realism and epistemological objectivity (Levers, 2013). Only a few decades later Strauss and Corbin (1990) made it explicit that pragmatism and symbolic

interactionism were the philosophies underpinning grounded theory methods. Although, they point out that “one need not to subscribe to these philosophical and sociological orientations to use the method”, they argue that two significant principles are drawn from these philosophies: (1) change through process, in respect to continually changing phenomena; (2) rejection of strict determinism, in respect to the options that actors encounter. The interactive approach is represented in grounded theory by the researcher catching the interplay between the actors responding to the changing conditions and to the consequences of their actions (Corbin & Strauss, 1990, p. 5). Charmaz (2000) proposed a constructivist approach and believed that „the future of grounded theory lies with both objectivist and constructivist visions” (p. 528). Glaser (2005) argues that adopting a specific philosophical position or a disciplinary perspective may reduce the potential of grounded theory (Birks & Mills, 2015). Accepting that the inquiry is influenced by socio-culturally bound philosophical assumptions, and the construction of knowledge is “social, interactive, ongoing, flexible and tentative”, the grounded theory researcher may accept a theoretical pluralism perspective, which allows adjusting for the limitations of each theoretical position, and improving or revisiting its arguments (Thornberg, 2012, p. 250).

The grounded theory and symbolic interactionism

As pointed out by Clarke (2003), the grounded theory method has deep roots in symbolic interactionist sociology and pragmatist philosophy. Strauss and Corbin (1990) propose a pragmatist perspective to grounded theory study using a theoretical model originating in interactionist social theory. Symbolic interactionism as a sociological perspective is based on the assumption that people ascribe symbolic meaning to social interaction processes. The symbolic meaning is rooted in the individual beliefs. Blumer (1969) proposed symbolic interactionism as epistemological and ontological basis for the interpretive turn in research. Interpretive paradigm is grounded in theories which “stress the importance of investigating action and the social world from the point of view of the actors themselves” (Knoblauch et al., 2005, p. 5). The interpretive paradigm associated with the grounded theory methodology adopted in the present research is based on the theory of symbolic interactionism closely related to social constructionism (constructivism) which was the epistemological and ontological grounding of the original grounded theory (Clarke, 2019). The grounded theory methodology, as proposed by Strauss and Corbin (1990), is grounded in symbolic interactionism in the way it advocates for “intimate familiarity” with the studied world and letting the empirical data, received from the informants, who possess knowledge in the area of study, lead the development of concepts (Blumer, 1969). The grounded theory methodology as further developed by Strauss and Corbin (1990) explicitly indicated it being based on pragmatist interactionist theory and interpretive research practice (Clarke, 2019; Strubing, 2019). Symbolic interactionism focuses on significance of symbols, especially language, in social interaction, social roles, and construction of self through social interaction (Blumer, 1969). The symbolic interactionist theory assumes that people actively shape their behavior through engagement in social interaction (Sandstrom et al., 2001). In order to act, people need to interpret the world, therefore, the purpose of scientific inquiry is to disclose the meanings people attribute to social acts, social roles and the self (Blumer, 1969). Symbolic interactionism has some links with social constructionism, in respect to meaning construction and emphasis on social interaction. However, the distinctive feature of symbolic interactionism is concern with making sense of the self and social roles, whereas social

constructionism focuses on people making sense of the world and relationships (Leeds-Hurwitz, 2006).

The use of literature

Literature review is dispute in grounded theory scholarship (Charmaz, 2006). Glaser and Strauss (1967) recommend delaying the literature review so that the researcher avoids imposing preconceived ideas in the analysis of data. In their view, the researcher should “ignore the literature of the theory and fact on the area under study. In order to assure that the emergence of categories will not be contaminated” (Glaser & Strauss, 1967, p. 37). Contemporary theorists of grounded theory criticize the idea of theoretical categories being derived merely by inductive generalization when the researcher’s mind is free from any theoretical preconceptions as “naïve empiricism” (Timmerman & Tavory, 2012; Thornberg, 2012; Kelle, 2019). Following the contemporary philosophy of science, the construction of empirically grounded theoretical categories “cannot start *ab ovo* but must draw on existing knowledge”, when the empirical researcher uses “lenses’ of conceptual networks to observe and describe meaningful events (Kelle, 2019, p. 6). In their later works classical grounded theorists Glaser (1978) and Strauss and Corbin (1990) acknowledged the influence of the prior knowledge and background of disciplinary literature on the inquiry and conducting a broad literature review. However, their views on the use of literature differ: Glaser recommends to use broad theoretical background knowledge, which should not be made explicit until later stages of coding and category building, whereas Strauss proposes using a specific theoretical framework “based on pragmatist theory of action” (Kelle, 2019, p. 20). Later generation of grounded theorists (Clarke, 2005; Kelle, 2005; Charmaz, 2006) consider literature review essential. Clarke (2005) suggested literature review be used for establishing a new study within the context of previous research developments. Charmaz (2006) proposes the researcher locate their work within relevant literature (p. 166). When coding data, the researcher thinks about how the materials and the completed theory address the “fundamental concerns and contested ideas” in the field of study, and by “discerning connections to such concerns opens possibilities for theorizing” (p. 138). In view of a grounded theory, concepts emerge from the data rather than emanate from a preconceived frame, and thus shape an analytic frame for building analysis (Charmaz, 2006, p. 45). Kelle (2005) recommends using pre-existing theories and research findings as heuristic tools to help the researcher focus on certain phenomena or aspects and see beyond data. Thornberg (2012) proposes the concept of “informed grounded theory” for the researcher to supplement grounded theory methodology techniques with explicit literature review, which may be used as a source of creative inspiration, associations, reflections or multiple lenses “in line with the logic of abduction” (Thornberg, 2012, p. 249). The necessity to “reconcile the claim to let categories emerge “instead of forcing preconceived theoretical terms on the data) with the impossibility to abandon previous theoretical knowledge” is one of the most important challenges in grounded theory methodology (Kelle, 2019, p. 2).

Treatment of data and theory development

There are distinct views among grounded theorists in respect of the nature and treatment of data. The traditional objectivist grounded theory (Glaser & Strauss, 1967; Glaser, 1978) views data as representation of objective facts existing in the world. The role of the researcher as an unbiased observer lies in recording the facts and developing a theory from these facts through following strict procedures. The grounded theory is derived inductively invoking the processes of discovery,

development and provisional verification (Strauss & Corbin, 1990), where systematic data collection and analysis, and theory are in reciprocal relationship. Strauss and Corbin (1990) point out the inductive nature of grounded theory inquiry, when the theory emerges from the complex data on the research phenomenon. Through studying single cases, grounded theorists identify patterns in the empirical world (Glaser & Strauss, 1967) by invoking the constant comparative method. Constant comparison aims at disclosing emerging categories and substantiating them by defining properties and dimensions (Holton, 2010, p. 27). Holton (2010) identifies three types of comparison involved in the process: (1) incidents compared to other incidents to establish uniformity and variation of conditions of generated concepts and hypotheses; (2) concepts compared to more incidents to generate new theoretical properties of the concepts and hypotheses aiming at “theoretical elaboration, saturation, and densification of concepts”; (3) emergent concepts compared to other concepts to establish “the best fit between potential concepts and a set of indicators”, and their “integration into hypotheses to become theory”(Holton, 2010, p. 27 – 28). Glaser (2002) argues that the procedures of constant comparison and theoretical sampling are fundamental in grounded theory research. Theoretical sampling for indicators of categories is aimed at providing properties and dimensions to achieve theoretical saturation. Theoretical completeness is achieved through saturation of interrelated categories (Glaser, 2001). Sufficient theoretical sampling is required for achievement of theoretical saturation to validate the relevance of the categories to the theory (Holton, 2010, p. 29). The classical grounded theorists (Glaser, 2001; Glaser & Holton, 2004; Holton, 2010) argue for „intense property development” as a necessary requirement for the development of an abstract conceptual theory which is not characteristic of „descriptive capture”. In terms of theory emergence paradigms, the traditional classical grounded theorists argue for an inductive substantive theory development when theory emerges from the data through the researcher carrying out systematic analysis of the data. The constructivist grounded theory emphasizes that the resulting grounded theory is an interpretation (Bryant, 2002; Charmaz, 2000) and construction of reality revealed through research participants’ explicit perceptions and implicit meanings (Charmaz, 2006). The emergent theory developed from empirical data renders a holistic interpretive picture of the reality studied (Charmaz, 2000; Guba and Lincoln, 1994). “A fine-grained analysis of how people construct actions and meanings can lead a grounded theorist to establishing some reasons for it” (Charmaz, 2006, p. 130). Constructivist grounded theory explains how and why the participants behave in particular situations and how they construct meanings. However, as pointed by Charmaz (2006), the theory is determined by the researcher’s view, which may result in different researchers rendering theoretically different ideas. Glaser (2002) opposes Charmaz (2000) saying her constructivist GT reflects descriptive capture and a QDA (Qualitative data analysis) approach. The ongoing development and evolvement of the qualitative research paradigm in the last decades has had considerable influence on the development of a new generation of research in grounded theory methodology and brought a diversity in the research design (Birks & Mills, 2015; Clarke, 2019). Birks and Mills (2015) argue that theory is generated from data analysis rather than discovered. This post-constructivist approach explains that theory is constructed by the researcher following his/her particular perspective.

2.1.4 Justification of the choice of research framework

The variety of perspectives on and interpretations of data analysis adopted in grounded theory scholarship demonstrates that being subject to change and development, the methodology evolves and particular design of the research process may be determined by the researcher's stance on the methodology and the position the researcher takes on its epistemological and ontological foundations. In what follows I will clearly articulate my stance on the choice and design of methodology.

The choice of research methodology is determined by the research problem (Creswell, 2014). In the present study, the grounded theory methodology is adopted as the most appropriate interpretive framework for investigation of self-directed later life learning. The qualitative paradigm provides preconditions for exploring self-directed later life learning in generativity-related context which allow disclosing the dynamics of the processes involved in learning in development of a theory illustrated by research participants experiences. This study aims to explore (the nature of) self-directed learning as an independent autodidactic process determined by the generativity-based context of learning. This study looks into the relationship between self-directed learning of older adults and their generativity-based learning contexts as reported by older learners themselves. The choice of the grounded theory methodology is predicated on the view that the existing theories are insufficient to explain the research phenomenon (Creswell, 2007). Grounded theory methodology is considered appropriate when a phenomenon has been little researched, and the researcher aims to “construct an explanatory theory that uncovers a process inherent to the substantive area of inquiry (Chun Tie et al., 2019, p. 7).

The grounded theory is based on the interpretive approach to qualitative research. The aim of the grounded theory research is to conceptualize the empirical data, i.e. to develop an abstract analytical theory explaining processes or phenomena based on empirical data about the participants' experiences and attitudes (Creswell, 2007). The grounded theory approach allows looking into a variety of experiences of the phenomena or processes, multifaceted reality, the complexity of attitudes and actions, and feelings of the participants (Charmaz, 2006). The main issue of research is answering the questions of how and why the participants behave in particular situations and how they construct meanings (Charmaz, 2006). Older adults are viewed as constructing meanings of self as an aging individual, personal development and learning in later life. Faced with changes in their physical and social status, older adults experience an urge to engage in reassessing their needs, and get involved in pursuits which cater for those needs. The literature on later life learning emphasizes how older adults account for their learning needs and construct meanings of their learning pursuits through construction of narratives about their personal development, invoking common learning strategies and developing new learning strategies to suit their physical and social status.

The research design of the present study aligns with the evolved grounded theory approach originally proposed by Glaser and Strauss (1967), and later elaborated in the works of Strauss and Corbin (Strauss, 1987; Strauss & Corbin, 1990; Corbin & Strauss, 2008). The choice of the theoretical framework is based on the author's relativist ontological and subjectivist epistemological stance, and the interpretive research paradigm, which is congruent with the needs of the research project associated with the participants' subjective experiences and meanings. The pragmatic considerations to select this approach were related to the clarity of research guidelines outlined by experts associated with this version of grounded theory, including the Coding Paradigm (Strauss, 1987), and analytic tools (Conditional Relationships Guide and Reflective Coding Matrix (Scott, 2004) aiding the

research process through all the stages to the development of an integrated theory (Glaser & Strauss, 1967). Kelle (2019) argues that Grounded theory methodology is “flexible enough for theoretical pluralism” (p. 11). However, the researcher, who draws on the Straussian approach, “would have to construct one’s own coding paradigm connected to another theoretical tradition” – “utilize a specific theoretical framework based on pragmatist theory of action” (p. 11).

In the present study, I undertook a comprehensive literature review prior to data collection and analysis in order to enhance the theoretical sensitivity, and meet the requirements for a doctoral degree research study. To avoid the excessive impact of prior knowledge, I followed the assumption that the potential of extensive reading influencing the research outcomes can be minimized by researcher reflexivity, which ensures that the researcher contemplates on her pre-existing knowledge throughout the process of carrying out the study. Writing theoretical memos, having access to peer support and academic supervision were made use of for the purposes of avoiding literature-related bias. Consistent with the grounded theory methodology, in the present study, emphasis is placed on development of a conceptualized theory through saturation of categories and generalization. The process of coding and integration of codes allows for a substantive theory to emerge, which suggests relevant hypotheses and concepts as a theory (Glaser, 2001). In keeping with the fundamental principles of grounded theory, data analysis was carried out concurrently with data collection and following a theoretical sampling procedure.

2.1.5 The researcher methodological awareness and consistency

The following guidelines of grounded theory methodology (Glaser & Strauss, 1967; Strauss, 1987; Strauss & Corbin, 1990; Corbin & Strauss, 2008): were adopted to inform the present study during at particular stages:

- 1) Deciding on the research topic. The researcher formulates the research problem, questions, aim and research issue. Symbolic interactionism paradigm and the perspective of social psychology guide orientation of the questions to the meanings emerging from human interaction (Walker & Myrick, 2006). The questions primarily represent the process of research rather than the outcomes.
- 2) Selection of the research methods. The researcher identifies the methods of participant selection, data collection and data analysis. The choice of methods is based on their potential to provide extensive data sufficient to investigate the research problem and generate the theory.
- 3) Purposeful selection of research sample. The participants are selected on the basis of belonging to particular population, having relevant experience, and understanding of research phenomenon. Representation of specific population is not considered, as the main focus is on the research sample potential to reveal the phenomenon from a variety of perspectives.
- 4) Formulation of research questions. Production of knowledge and dynamics of communication are the characteristic dimensions of grounded research interview questions. The “what” questions represent the topical dimension, and the “how” questions stimulate positive interaction (Brinkman & Kvale, 2015).

- 5) Analyzing the data. Grounded theory methodology avoids reductionist approach in data analysis – all data are constantly compared and serve as basis for generating concepts (Glaser & Strauss, 1967). Comparisons are taken from data to construct abstractions, which are simultaneously tied to data (Charmaz, 2006).
- 6) The focus on emergent theory. The process of construction of theory is grounded in empirical data. The grounded theory study focuses on disclosing the complexity of processes rather than describing the characteristics associated with the phenomenon (Corbin & Strauss, 2008).
- 7) The use of literature review. Following the view of contemporary “informed grounded theory” (Thornberg, 2012; Kelle, 2019), extensive literature review was utilized for formulation of research topic and questions, and throughout the data analysis and emergent theory development stages by using extant concepts and theories as lenses to focus on the significant aspects.
- 8) Research ethics. Research ethics is aimed at preventing any negative effects the research may have on participants. Therefore, participants are familiarized with the research topic, and processes of interviewing, there is the principle of anonymity observed, and there are some specific techniques applied to avoid sensitive issues.
- 9) Researcher qualities and skills. Researcher motivation to investigate the research phenomenon and develop insight into participant lifeworld becomes of considerable importance. The researcher must adhere to the rigor of grounded theory methodology, and have an open creative mind, determination, and empathy.

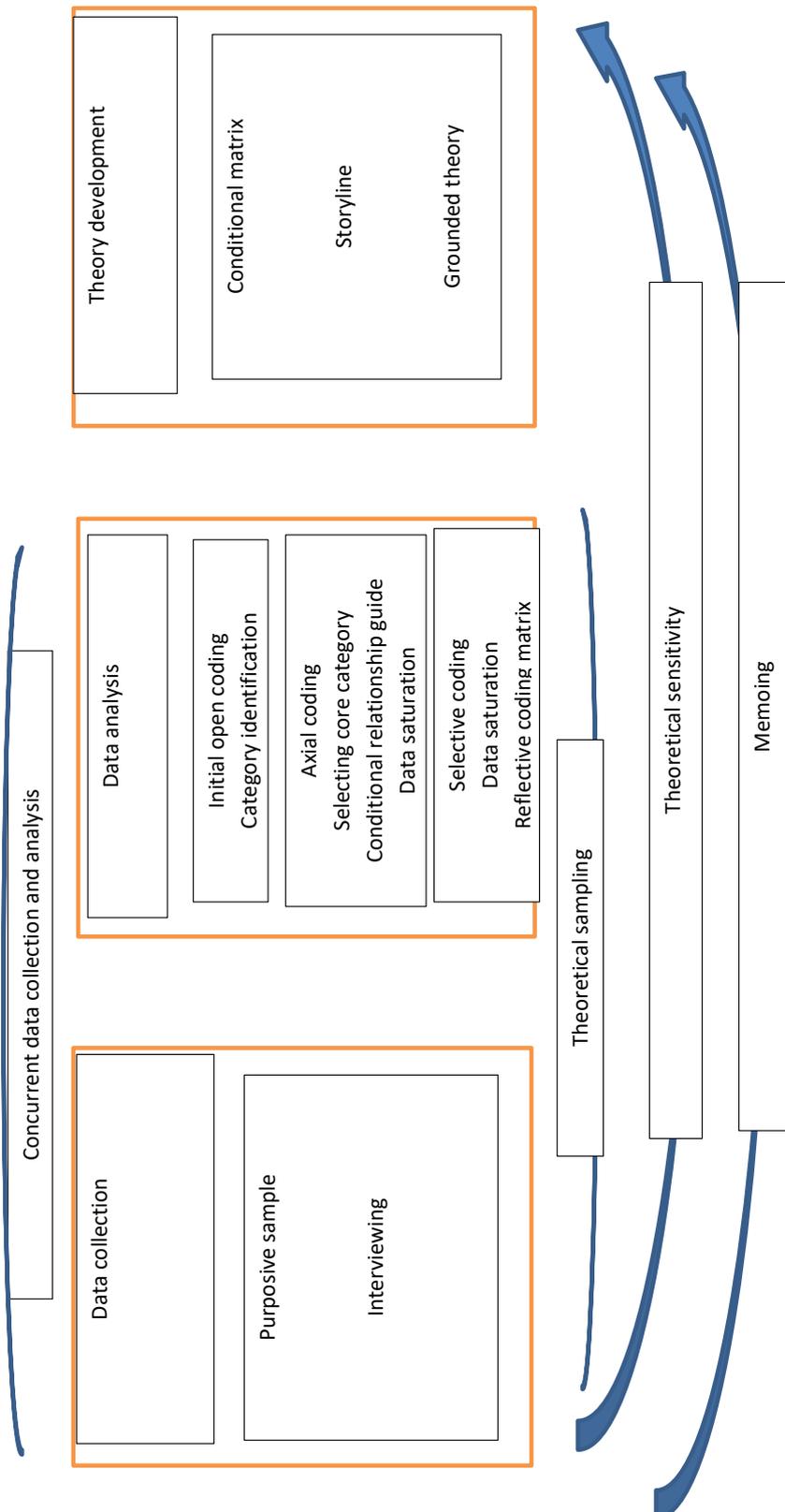
The research based on the grounded theory methodology allowed to gain original and detailed insights into the complexity of later life learning in generativity context. Other qualitative strategies were also considered in relation to the present research. However, they were rejected for the lack of adequacy or suitability for the purposes of the research. The analysis of contemporary literature indicated a need for development of a conceptualized theory of self-directed learning in later life in relation to generativity as a specific context of social reality.

However, grounded theory is undergoing change, and it is not a prescribed method that uses a “particular level of data” and formulaic techniques to calculate a solution (Morse, 2016). Grounded theory is “an art”, and so its procedure cannot be learned in the form of prescriptions (Bohm, 2004, p. 270). Morse (2016) proposes that grounded theory is a way of thinking about data – processes of conceptualization – of theorizing from data, so that the end result is a theory that the scientist produces from data collected by interviewing and observing everyday life.

The dynamic nature of research determines that methodology may be modified during the process and detailed procedures are not developed prior to collection of data (Bogdan and Biklen, 2007). Having been planned at the preparatory stage, the research design is further constructed during the course of data collection and analysis, when the research questions and techniques may be altered and adapted (Creswell, 2007). Figure 2 depicts the research process undertaken for the present study. GT generation is a result of an iterative dynamic process which proceeds through stages in a recursive mode. Movement through stages is not a linear, but an iterative recursive process. This process involves employment of systematic procedures and tools. The study started with purposive sampling, followed by concurrent data collection through semi-structured interviews, and data analysis performed through three stages of coding process based on constant comparative analysis. Further

data analysis was conducted alongside the processes of theoretical sampling aimed at theoretical saturation and memoing aimed at theoretical integration.

Figure 2. Research process design



2.2 Researcher position

The researcher position is associated with the axiological position, role, self-awareness and reflexivity, which should be explicated through declaration of ideology (research philosophy), biases and assumptions. Clarification of the researcher bias is essential in grounded theory as the researcher plays the role of a “research instrument” (Patton, 2002). Therefore, in this section, the researcher’s position will be disclosed in terms of perspectives, beliefs, values and assumptions as linked to the present study.

In the interpretivist paradigm, the researcher axiological position is associated with the research being value bound, and acknowledging the researcher subjectivity. In line with the interpretivist, subjectivist grounded theory perspective, I considered the researcher being part of the research process, close to the research participants and their realities (Charmaz, 2006, p. 132). My personal interest in undertaking exploration of the phenomenon under study was stimulated by my long-lasting contacts with older adults in my personal environment, through engagement in non-formal adult education, and my relationships with retired ex-colleagues in the teaching profession. This permanent relation with the research phenomenon informed my understanding of the realities of ageing individuals, issues of generativity, and personal development in later life.

The researcher experience and interpretive creativity are inherent in grounded theory methodology (Scott & Howell, 2008, p. 2). Strauss and Corbin (1990) argue for adherence to the major criteria of a grounded theory study. If due to some exceptional reasons, a researcher somewhat departs from those criteria, they should submit credibility of their findings (p. 20). As a novice researcher, I looked for procedural guidance in literature and sought sensitivity toward data analysis by extensively studying the essential principles, strategies and techniques of the grounded theory methodology. In order to ensure higher quality of the present research, I engaged in extensive development of my research competence in a variety of methodological seminars and training. This allowed to assess the possibilities for scientific inquiry in the field of the present study, and make an informed choice of the research methodology. During the course of working on the present study, in order to ensure the quality of the study, I sought advice from my academic supervisor, and colleagues on the issues of preparation of the study, and decisions regarding the research process. Consulting the people from academic community provided some impartial opinions, critical insights and valuable advice, which encouraged me to probe into ambiguous issues and find solid argumentation for justifying decisions.

The grounded theory development is influenced by both the researcher worldview and standpoints, and the situations arising in the research sites or developing between the researcher and his/her data, when the researcher interacts with the data and emerging ideas, making sense of those situations, and drawing on language and culture (Charmaz, 2006, p. 179). The interpretive inductive paradigm requires that the researcher suspend their judgement and approach the phenomenon of study with openness to learn about it from the participant’s perspective (Creswell, 2014). The researcher being aware of their presuppositions, as well as reflection on one’s own interpretations prevents importing preconceived ideas into the theory (Charmaz, 2006, p. 131).

Charmaz (2006) argues that writing in grounded theory perspective is “intuitive, inventive, and interpretive”, and the theory develops from the analytic process through “reasoned reflections and principled convictions” (p. 183). Forcing data into researcher’s favourite analytic categories may be prevented and “possibilities for importing preconceived assumptions about human intentions,

actions, and meanings may be reduced by situating the study and letting “generality emerge from analysis” (p. 181). There are a number of strategies recommended to reduce researcher’s bias in grounded theory. Glaser (2002) argues that researcher bias is dealt with by attentively applying the procedures of grounded theory methodology, by “looking at many cases of the same phenomenon”, carefully comparing much data from many different participants”, and development of abstract categories. Timmermans and Tavory (2012) proposed managing researcher bias by approaching the research field with multiple theoretical ideas gained from extensive reading in differing intellectual traditions. In order to avoid preconceptions, I critically reflected on the codes and categories not being influenced by extensive literature review prior to the empirical research. I ensured that the participants’ perspectives were adequately reflected in the analysis. However, it may be impossible to absolutely avoid preconceived ideas due to previous research experience. Being aware of my previous research experience, I tried to stay open minded and exercise reflexivity throughout the research process by writing analytic memos.

There is a creative interplay between researcher and data. Creativity depends on the researcher’s analytic ability, theoretical sensitivity, and sensitivity to the subtleties of action/interaction, and the quality of data collected (Corbin & Strauss, 1990, p. 19). Charmaz (2006) argues that no researcher is neutral in the sense they use language and perceive the world through human experience. Language plays an extremely important role in scientific inquiry as it “confers form and meaning on observed realities”. Therefore, when coding in grounded theory methodology, I was aware of the meanings they attribute to specific terms used as codes and examine “hidden assumptions” in one’s own language use and that of participants (Charmaz, 2006, p. 46).

2.3 Research sample and data collection

In this chapter I will explicate the research design implementation related to the selection of research sample and data collection stages of the present study. The data collection was performed following the principles and methods of the grounded theory methodology as provided in the works of leading grounded theorists (Glaser & Strauss, 1967; Glaser, 1998; Strauss & Corbin, 1998; Charmaz, 2006).

The principle of concurrent data collection and analysis is a fundamental characteristic of grounded theory research design, which differentiates it from other types of research (Birks & Mills, 2015). The selection of research sample includes two basic methods applied at different stages of data collection: the purposive and theoretical sampling (Birks & Mills, 2015; Bryant & Charmaz, 2007). The purposive sampling is represented by the researcher purposively selecting data sources and participants to generate data that could answer the research question (Glaser & Strauss, 1967; Charmaz, 2006; Charmaz & Bryant, 2011). The data collected initially is coded and analyzed, and then based on the results of initial analysis, more data are generated. Further collection of data is based on theoretical sampling. Theoretical sampling is conducted after the researcher has defined and tentatively conceptualized categories, and indicated some areas to be investigated with more data, and is used as a technique to refine emerging categories and specify the links among categories (Charmaz, 2006, p. 107). Theoretical sampling is aimed at filling gaps, clarifying uncertainties, checking hunches and testing interpretations (Chun Tie et al., 2019). This combination of data collection and analysis creates an unfolding iterative process inherent in grounded theory (Birks &

Mills, 2015). The selection and number of participants involved in research is based on the scope of the study and the “data saturation” principle (Glaser, 2001).

Purposive and theoretical sampling

In the present study, at the initial stage, the research sample was made on the basis of the purposive sampling. The rationale for purposive sampling was to select information rich participants whose input would benefit the research questions. Participants in the research were selected on the basis of the following criteria: 1) post-retirement age (over 60); 2) engagement in self-directed learning; 3) engagement in generativity. The snowball and convenience sampling techniques were used for approaching potential participants (Patton, 2002). I approached some community centres and asked the leaders of social and cultural activities to recommend older people in their communities who were involved in some kinds of generative activities and were respected for their expertise and knowledge. The participants were contacted by telephone to determine whether they were interested to contribute to the research. The purpose of the study was explained and the format of the interview process was described. After the initial interviews the participants were asked to suggest the names of other individuals that could be approached for the purpose of the research. Particular participants were selected because self-directed learning was a critical aspect in their generative activity and coping with their ageing changes/challenges. The selected participants were considered information-rich in terms of producing data relevant to the study of the research phenomenon. To recruit information-rich participants, I aimed at finding participants with relevant experience, who would be able to provide informative data by sharing their insight on the research issue. Therefore, the participants’ ability to articulate their perceptions and experiences was considered a crucial selection criterion. Most of the participants were professionals as they had a degree in a specific area or an equivalent qualification. There were 16 participants in the study including 14 female and 2 male participants. The participants lived in different parts of Lithuania both in rural and urban areas. There was a large representation of retired teachers in the participant sample (9), the other careers included a physician, an accountant, a civil servant, a musician, a (school) principal. The participants age varied from 62 to 82. The retirement period ranged from 4 months to 15 years. The data on the participants is provided in Appendix 4. The research sample was not intended to be representative of or the findings were not intended to be generalizable to a broader retired population per se (Strauss & Corbin, 1990). As pointed out by Strauss and Corbin (1990), representativeness in grounded theory is associated with concepts, not persons, and thus representativeness and consistency are achieved by theoretical sampling.

The empirical research (interviews) was conducted in two periods: (1) November, 2016 to April, 2017 (initial collection of data), and (2) January to March, 2018 (further collection of data). Nineteen individual interviews were carried out with the participants. The average length of the interviews was 56 minutes. Each interview lasted between 35 and 144 minutes. The interviews were audio-recorded and then transcribed. The interviewing generated 185 pages of transcripts. The grounded theory interviewing is continued along the data analysis period, when the researcher returns to the field to collect more focused data to answer the questions which arose when studying data, and which will enable the researcher to “fill conceptual gaps” (Charmaz, 2006, p. 29). The second stage of interviews followed analysis of data, which was needed to expand upon emergent new themes (Morse, 2007). Although a diverse sample was sought initially, the experience and attitudes (insights) of many of the participants were rather similar, which also produced rather homogeneous meanings

behind emergent categories. This limitation had to be addressed through theoretical sampling. Therefore, further data collection was undertaken based on the results of the analysis of initially collected data. The use of theoretical sampling strategies will be described in the following section of this chapter (see Data analysis). Following the constant comparative methodology, theoretical sampling allowed me to decide on the nature of the data to be collected so that it provides for further development of the emerging theory. Additional interviews were conducted with three of the participants of the first stage, and two new participants were recruited. Approaching particular participants as follow-up from the initial interviews was based on my expectations to collect more data for further development of some of the codes and tentative categories which emerged during the open coding. Glaser (1998, 2001) argues that sampling should be continued until the categories are saturated, and this supersedes even a small sample size. In line with the saturation strategy, further data collection was needed to fill the identified gaps and saturate the categories and their properties. Creswell (1998) argues that grounded theory is generally based on a limited number of interviews, and a limited sample may be sufficient provided it meets the purpose and the quality of data and analysis criteria. The final number of participants in the study was determined by the scope of the study and the 'data saturation' principle (Glaser, 2001).

Data collection

In grounded theory methodology data collection is directed to explain the properties of a category and relations between categories (Charmaz, 2006, p. 18). Due to the principle purpose of data being embedded in the development of the conceptual categories, the grounded theory researcher has to collect enough data to generate and inform analytic categories. However, grounded theorists have differing ideas about attending to the amount of data. Glaser (1998) suggests that small studies, which are based on limited data, may be sufficient in grounded theory (Glaser, 1998). Charmaz (2006) argues for rich and sufficient data, associating the criteria for data relevance with its usefulness for developing core categories, suitability and sufficiency for depicting empirical events (Charmaz, 2006, p. 18). The researcher has to collect enough data associated with persons, processes and settings as contexts of the study, participants' views and actions to allow comparisons through which ideas are generated (Charmaz, 2006, p. 18-19). The researcher should collect sufficient data to make comparisons, which informs generation of analytic categories (Charmaz, 2006). The researcher directs production of data from participants by eliciting their response to relevant questions (Ralph et al., 2014). Data mediation in the interaction between the researcher and participants is an important characteristic of qualitative research, which emphasizes the role of the researcher as the primary instrument of data collection (Creswell, 1998). The relationship of the researcher with data extends through the process of coding and analysis, and determines its value to the development of the grounded theory (Chun Tie et al., 2019). Each interview conducted in the present study consisted of a number of open-ended questions covering the topic areas of the research. The exploratory nature of the interview allowed the flexibility in adjusting questions, asking for more detail or following new lines of enquiry (Patton, 2002). This type of questions also provides opportunities to further exploration of the issue by encouraging the participants to elaborate on their initial response.

The process of interviewing

The semi-structured face-to-face interview was used as the method of data collection. Interviewing in grounded theory is a "flexible, emergent technique", which allows the interviewer to

pursue the leads of the issues and ideas emerging during the interview (Charmaz, 2006, p. 29). In the grounded theory methodology, the structure of an interview may vary from a “loosely guided exploration of topics” to semi-structured focused questions (Charmaz, 2006, p. 26). The latter method was chosen due to the advantages it provides to the research: the flexibility to change the sequence of questions, to ask additional questions or expand the questions depending on the course of the interview; possibility to focus in more detail on the issues which come up as meaningful to the participants during the interview; possibility to collect contextual data; possibility to analyze the data outside prior theoretical assumptions related to the data (Glaser & Strauss, 1967; Kvale & Brinkmann, 2009). Being able to monitor the interview situation, the researcher may analyze not only the content of the participants narratives but also grasp the non-verbal or extra-linguistic aspects of the discourse. The greatest advantage of the interview is the interaction between the researcher and the participant: the researcher gets to know the participants, develops a better insight into the context, and is able to collect the data in the mode of speech used by the participants themselves (Creswell, 2007). This allows the researcher to use authentic language which reflects the participants’ views and perceptions of their experiences. The participants’ experience of and the insights into the research issues are explored by asking questions which emerge during the course of the interview. In the grounded theory interviewing the researcher continues the interviews with narrowing the range of topics to collect specific data for development of the theoretical framework (Charmaz, 2006, p. 29).

Preparation for interviewing

In the present study, preparation of interview guide involved the guidelines for the procedures and the relevant issues which have to be addressed during the interview also including delineating the main topics which needed to be addressed to obtain information from participants, and drafting the questions. The areas of investigation as reflected in interview questions, included the nature of learning experience, motivations, learning strategies, resources, and learning outcomes. The questions in grounded theory methodology are intended to explore the topic and suit the participants’ experience in the way they are sufficiently general to embrace a wide range of experiences and sufficiently narrow to elaborate specific experience (Charmaz, 2006, p. 30). Creating non-judgmental questions stimulates “unanticipated statements and stories to emerge” (Charmaz, 2006, p. 26). However, as pointed by Charmaz (2006), “tensions between data collection strategies and what constitutes 'forcing' are unresolved in grounded theory (p. 18). Glaser (1998, p. 94) warns against an interview guide or units of data collection as forcing the data into a preconceived framework, whereas other grounded theorists view an interview guide as a viable means of data collection (Charmaz, 2006; Strauss & Corbin, 1998). Following the guidelines of the grounded theory interviewing, I prepared a few broad, open-ended questions, intending to focus them to invite a more detailed discussion of the relevant issues during the interview. The questions were intended to probe into the aspects of life which the participants have both substantial experience of and considerable insight into. The list of questions arranged in a sequence was prepared and referred to during the interview. However, the preliminary order has to be considered flexible, as during the actual interview it is not always possible to keep to the structure of the basic outline and the interviewer should ask a particular question when it becomes relevant. It is recommended to start with questions which the participant can answer easily and then ask questions related to more difficult or more sensitive topics (Patton, 2002). The questions can also be adjusted in the course of the interview depending on the content of the information the participant provides. The paradigm of continuing data collection alongside data

analysis in grounded theory determines that consequent interviews develop according to the research interest to cover the research issues and yield a variety of insights. In subsequent interviews additional focused questions are added to explore the emergent issues and to saturate the categories.

The design of the interview questions represented integration of the researcher intent, research questions and grounded theory methodology. It was also influenced by my professional experience in and knowledge of adult education, and also by literature review conducted for the purposes of the thesis. In the present study, the purpose of the interview was to help the researcher to understand the participants' experiences of their self-directed learning also including internalized meanings of the roles and values associated with their generativity. The questions were designed in complex patterns covering the three aspects of the inquiry: self-directed learning, later life and generativity. The issues of self-directed learning were related to antecedents, attributes and consequences of learning. The respective antecedents-related questions explored what things and why were important to learn to perform a specific generativity-related activity and how good the participants were at those things. The attribute-related questions were intended to reveal the complexity of learning experience: how successful the participants were at gaining the knowledge/skills needed, what things were learnt easily, and what they found difficult; how they dealt with difficulties obtaining information/gaining skills; how age affected their learning. Disclosing the consequences of self-directed learning, it was important to identify the outcomes of the participants' learning experiences of both the individual and social nature. The interview questions were designed taking into account the dimensions of the nature of later life learning experience influencing the construction of learning (Mezirow, 2000), including affective, conative, cognitive, manual dexterity and social dimensions (Russell, 2007).

The questions were organized in structural parts according to different domains of generativity. The following questions were included in the preliminary list of questions to be asked: (1) engagement for others and society (about learning in productive activity): Tell me about the activities you have completed recently/are involved in/ doing at the moment. Why is it important to you? What do you find difficult? How important is it for you to perform this activity in the best/quality way? Are you happy about your achievements? What makes it successful? What prevents/restricts you from doing it a quality manner? Do you feel you have enough competence for doing this activity? If not, how did you get the relevant knowledge/skills? Is there anything you would like to learn to improve your performance? Do you have some methods how to deal with difficult situations? How does this engagement contribute to your personal development? What prevents your personal development? How important is it for you to know community life? Are you interested in the events happening in your district/ national/global events? What makes you interested? How do you learn about these issues? Do you feel you are contributing to these events? How? What motivates you to engage in activity? What prevents you from engagement? (2) individual self-care (about learning to live in older age): Tell me about the time you retired. How did you feel about retiring from occupational activity? Did you look for new areas of activity? Did this activity enable your further development? Do you feel any effects of ageing on your x activity/ life in general? Did you have to change/ give up/start doing something because of ageing? How do you cope with the challenges of ageing? Are you capable of taking full care of yourself? What do you do if some things are difficult to manage? Is there anything you want others (i.e. younger people) to do for you? Do you ever think of age having more effect on your abilities in the future? Are you thinking of possible ways to cope with that in the future/ or somehow prepare for that now? (3) engagement with following generations (about learning through intergenerational interaction): What do your family/friends think of your

engagement in this activity? What do you think of younger generations? Is it easy for you to communicate with people from a younger generation? If yes/no – what makes the communication successful/what prevents it? Are you trying to better understand their views and their lives? What differences do you see? Are you somehow learning from them? Are you trying to adapt to their understanding and change or you are trying to keep and impart to them the “old values”? Do you feel you are somehow contributing to their lives? Do they appreciate what you do for them? Why? Why not? Is it easy to find what you can do for others? What makes you do certain things, and not others? Do you think you could do more/other things for them? What things do you do together? What things are you doing better than them? What things are they better at? Are you trying to improve your performance? How do you benefit from communicating with younger generation/with older generation? How extensive is your communication with the people from your generation?

The dynamics of the interview is created by the ‘how’ questions, which may stimulate the participant to speak about their feelings and experiences. However, if there are numerous “why” questions, the participant may feel being “examined”. Therefore, the questions of this type must be asked sparingly, and they are recommended to be left for the last part of the interview. The formulation of the yes/no questions in the interview was intended as a clue for a topic of discussion, so that the answer was extended and elaborated by participants’ comments on how they perceived and managed particular aspects. The information provided through such questions was intended to be used as leads for further probing into the issue of inquiry and directing towards generating relevant information.

Conducting the interviews

The interviews started with a short introduction of the purpose of the research and the role of the participants. Participants were asked to read and sign a written consent to providing information for the purpose of the study and the interview being digitally recorded. The participants were instructed on the process of interviewing. The process of asking older adults to discuss personal experiences may create a delicate situation, as participants may feel they are revealing sensitive information, which requires to be handled in a considerate manner on the researcher part. Establishing rapport and directing the interview proficiently, the researcher may ensure that the participant reports reflect true and real picture of the meanings and perceptions. Establishing rapport with participants was an important part of the data collection process, as it ensured the extent of openness and willingness to share their thoughts. Demonstration of respect requires the researcher to make efforts to understand the participants’ lives from their perspectives, which allows “discovering what our research participants take for granted or do not state” (Charmaz, 2006, p. 19). The participants were asked to talk about their typical activities and the relationships with their family, friends, or other people involved in their generative activity. The participants were asked questions about the meaning of their experiences. At the end of the interview the participant were asked if there were any other aspects of their generative activity and learning they thought might be important or interesting to discuss. The process of interviewing demonstrated that the participants were able to identify the areas of their generative concerns or behaviour/activities and the relevant educational needs as well as the strategies they developed to fill the needs. Personal accounts of each participant’s pursuit of generativity and self-directed learning experience associated with different aspects of generative activity. The interviews were audio-recorded and then transcribed. The interviewing generated 185

pages of transcripts, which were processed by employing the techniques of manual coding combined with the researcher reading and re-reading the transcripts.

2.4 Data analysis

In this chapter I will provide an outline of the data analysis process which was designed and conducted consistent with the evolved grounded theory approach as developed in the works of grounded theorists Glaser and Strauss (1967), Strauss (1987), Strauss and Corbin (1990), Corbin & Strauss (2008). Strauss and Corbin (1998) refer to grounded theory analysis as an art and science as it involves both creativity and scientific rigor. However, when a researcher follows grounded theory guidelines like a recipe, they “do foreclose possibilities for innovation without having explored their data” (Charmaz, 2006, p. 115). The process of the application of grounded theory methodology in the present study includes the following essential grounded theory methods: concurrent data collection and analysis, coding and categorization of data, constant comparative analysis, identification of the core category, theoretical sampling, theoretical sensitivity, theoretical saturation and continued memo writing. Many of these methods are conducted as interrelated, iterative, and recursive. The empirical data analysis was built on the interactionist and interpretivist grounded theory approach, which emphasizes the participants’ narratives of their perceptions and experiences, and identifies human actions and behaviour (Corbin & Strauss, 2008).

Coding and categorization of data

In the grounded theory scholarship, since the introduction of this methodology (Glaser & Strauss, 1967) there have been different perspectives proposed to view the phases of coding. Glaser (2002), Holton (2010) distinguish two types of coding: substantive (including open and selective coding) and theoretical coding. Charmaz (2006) proposes initial, focused and theoretical coding. Birks and Mills (2015) propose initial, intermediate and advanced coding referring to low, medium and high level of conceptual analysis. In the present study, the procedures of the grounded theory of coding were carried out in the open, axial and selective coding stages using respective techniques as outlined by Strauss (1987) and Strauss and Corbin (1990) (see Appendix 6 Coding example). Open coding refers to development of categories from the data, axial coding refers to establishment of connections between categories, and selective coding refers to the process of building a story line and “producing a discursive set of theoretical propositions” (Chun et al., 2019). The coding process is not linear, as the researcher can save a set of codes to be developed later, review and make a fresh coding or recode a set of old data. The dynamics in the grounded theory coding process is embedded in its interactive nature and tensions (Charmaz, 2006). The process of coding leads the researcher to theoretical sampling of new categories and allows moving across substantive fields (Charmaz, 2006, p. 70). The continued and cycling nature of the coding process is associated with the constant comparison and theoretical sampling moving towards “higher levels of conceptual abstraction, core category emergence, and theoretical integration” (Holton, 2010, p. 23). In the present study, the focus of coding was on the participants’ actions and interactions (following symbolic interactionism), meanings and articulation of experience (following social constructivism). Identification of categories was based on the constant comparative method (Glaser & Strauss, 1967), i.e. comparison of incidents with incidents, incidents with codes, codes with categories, categories with categories

throughout the coding process. The constant comparative method allows establishing analytic distinctions through making comparisons (Glaser & Strauss, 1967). This enabled elaboration of the codes which served in developing an extensive range of properties to define categories. The constant comparative method at the initial phase of coding entailed grouping and conceptually labelling similar data of the participant accounts of their perceptions and behaviour expressed in the interviews.

The open coding process involved a close reading of the data, comparison of the elements of the data and assigning categories to groups of data by naming words, lines and segments (Charmaz, 2006 pp. 47-57). The initial coding is open in the way that the researcher is open to any other analytic possibilities (Glaser, 1992). The aim of open coding is to produce “concepts that seem to fit the data” (Strauss, 1987). Studying emerging data allows answering the question of what the data indicates about the subject matter of the study and identifying the theoretical categories in specific data (Glaser, 1978). The codes developed by the researcher should be constructed so that they capture the empirical reality – reflect the participant’s perspectives in the assessment of their views and experiences, and their tacit meanings. The data in the form of transcripts of interviews were analyzed manually to ensure that the authentic language and its implicitness was interpreted appropriately and the meanings participants associated with their words were not lost or misinterpreted. With each interview, I carried out the line-by-line coding (see Appendix 5 Example of line-by-line coding) as “breaking down” the data (Glaser & Strauss, 1967). Charmaz (2006) argues for initial coding to include word-by-word, line-by-line and incident-by-incident coding, which meets the criteria of fit and relevance (p. 54). At the open coding stage, I focused on exploring theoretical possibilities grounded in the data which would allow me to define conceptual categories at later stages of data analysis, at the same time being aware that extant theory may be developed only after considerable analytic work and avoiding preconceived concepts (Glaser, 1992). Using the constant comparative method, I grouped similar data and assigned it conceptual “labels” or codes. I treated my initial codes as provisional, and kept reconsidering and rewording in the way they captured the phenomenon of study (Charmaz, 2006, p. 48). Kelle (2019) warns against literal understanding that “everything counts” which may lead to an unsurmountable mass of data. As proposed by Charmaz (2006), line-by-line coding of subsequent interviews allows identifying some new processes which may be traced back to earlier interviews to find the links with other participants’ experiences and identifying relationships. Applying the constant comparative method, I compared data with data within the same interview, and then in different interviews. The open coding yielded 539 codes. Further coding involved looking through the codes and focusing on those which were the most significant to the research issue. As a result, 255 codes were selected for further analysis. The selected initial codes were tested against extensive data. *In vivo* codes were developed adopting the actual terms used by the participants. For further analysis I chose those codes which related to the participants’ insights and experiences of their later life learning and generativity processes which influenced their learning. The “incisive analytic framework” developed by the researcher meets the criterion of relevance by interpretation of relationships between implicit processes and structures (Charmaz, 2006, p. 54). At this stage I categorized the concepts by developing the initial codes into categories. I intended to ensure that construction of codes and their development into categories fits the empirical world by representing participants’ experience. In grounded theory approach a category is defined as a conceptual element in a theory (Glaser & Strauss, 1967, p. 37) which explicates an idea, an event or a process. Categories represent a “substantive definition of what is happening in the data” (Charmaz, 2006, p. 92). Development of codes into categories entails a number of steps when the researcher defines the category, explicates its properties,

specifies the “conditions under which the category arises, is maintained, and changes”, describes its consequences, and shows its relationships to other categories (Charmaz, 2006, p. 92). By the end of the open coding process, the 40 categories were developed in large batches of data, and selected for further analysis as the most meaningful and rendering most insights. However, through subsequent analytic analysis, some of the categories were reviewed, changed, and recategorized, and the final list of categories was reduced to 38 categories.

Based on the results of open coding, the empirical data were reviewed with the aim to identify if there was a need for collecting some additional data to better reflect the identified categories and codes (Charmaz, 2006, p. 57-60). The tentative categories developed at this stage were linked with the topics to be explored in further data collection. This approach represented theoretical integration, which continued through subsequent stages and encompassed identification of the core category, theoretical saturation and analytical memos (Birks & Mills, 2015). Memo-writing facilitates the abstract analysis staying close to the data and theoretical integration (Charmaz, 2006) in the view of further development of the links between categories. Although, according to Charmaz (2006), “memo-writing forms the next logical step” after defining categories, she recommends starting it from the beginning of research (p. 82). Memo-writing facilitates and clarifies subsequent coding. Having identified gaps in the data, researcher may also decide to seek new data to fill the gaps, which would focus and elaborate on the emergent processes (p. 52). Comparing the data and focusing on both implicit and explicit meanings, I identified the actions and processes and named them by using the gerund form. This allows “moving beyond categorizing types of individuals”, and defining and conceptualizing relationships between experiences and events and leads to theory construction (Charmaz, 2006, p. 136). A focus on process is maintained by raising questions “What process? Under which conditions does it develop? What are the participants perceptions and actions when involved in it? When, why and how does it change? What are the consequences?” (Charmaz, 2006, p. 80-81). Trying to interpret the participants’ tacit meanings, the researcher closely studies the emerging data (Glaser, 1978). The researcher should be aware that participants’ accounts of their perceptions are integrative and reflect the social context, time, place, biography and audience (Charmaz, 2006, p. 68). The researcher moves towards “generalizable theoretical statements that transcend specific times and places and contextual analyses of actions and events” (Charmaz, 2006, p. 46). The analysis of data combined two perspectives of reasoning: a deductive approach was adopted when viewing the data in terms of generativity elements within the generativity framework proposed by McAdams and St.Aubin (1992), and an inductive constructivist approach to the identification and establishment of codes related to self-directed later life learning elements associated with generativity. The inductive approach and description of results are aimed at revealing the properties of the phenomenon under study from the perspective of research participants (Creswell, 2014; Flick, 2009). The initial open coding of data leads to emerging core category, which delimits further data collection and analysis aiming at theoretical saturation of categories (Holton, 2010, p. 24).

The second phase of data analysis included axial coding, identification of the core category, constant comparative analysis, theoretical sensitivity and memo writing. The axial coding involves sorting, synthesizing, and organizing data (Creswell, 1998). The researcher builds an axis for the development of relationships among categories (Strauss & Corbin, 1990). During axial coding the researcher looks into the categories developed through open coding and identifies their relationships to particular items of the coding paradigm. The coding paradigm proposed by Strauss (1987) comprises events or facts (phenomena), the causes of the phenomena, attributes of the context, the

influence of intervening conditions, the actions that agents make to deal with the phenomena, and the consequences of actions and interactions. Axial coding involves relating categories to subcategories which represent specific properties and dimensions of a category (Strauss & Corbin, 1998). The data, which was fractured at the initial coding stage now is reassembled in a coherent whole (Strauss & Corbin, 1998). Axial coding entails “intense analysis done around one category at a time in terms of the paradigm items”, which forms the axis for further category building, and may become the core category (Strauss, 1987, p. 32). However, some grounded theorists contest the use of axial coding (Glaser, 1992; Charmaz, 2006). Glaser (1992) suggests that the needed for axial coding is precluded by development of theoretical codes as following focused coding. Charmaz (2006) points out that this technique encourages application of analytic frame to the data, thus limiting and restricting the emergent theory construction. Corbin and Strauss (2015) warn against researchers “rigidly” following the coding paradigm in their analytic process which may “force data into preconceived frameworks” and “renders it directive and prescriptive”, which may “undermine the value and legitimacy of their analyses” (Charmaz, 2006, p. 115). The theoretical perspective of the coding paradigm “firmly ties users to a specific theoretical tradition - philosophical and sociological pragmatism” (Kelle, 2019, p. 10).

In the present study, the use of the coding paradigm is justified by the clarity it provides to the analytical process. As pointed out by Kelle (2019), “to avoid being flooded by the data” in the development of categories, one needs to draw on a theoretical framework” (p. 9). Kelle (2019) suggests that “the coding paradigm” provides a theoretical framework for explicit development of categories and thus may assist researchers with limited experience in conceptualizing empirical data (p. 9-10). At this stage of the analytic process, the categories developed during open coding were reviewed and refined by developing their properties (common characteristics) and dimensions (variations of properties). The core category (a core concept) was identified, which formed an axis for further development of (theoretical) categories. In classic grounded theory, first it is identifying the relationship between the categories and the core category, and then identifying the relationships between categories. By using the axial coding, the categories were linked by relationship and organized into a system of categories and subcategories with the axis of the main category, which allowed finding answers as to “what, when, where, why, how and with what consequences” (Strauss & Corbin, 1998, p. 125) and provided the dimensions of categories (see Table 5 Axial coding matrix). These dimensions included (1) conditions, which form the structure of the phenomenon; (2) actions and interactions, which represent the participants’ responses to events, and (3) consequences, which represent the outcomes of actions and interactions (Strauss & Corbin, 1998, p. 128). Diagramming is recommended to be used for relating and integrating relevant categories (Clarke, 2005) and illustrating the patterns which emerge during axial coding (Strauss & Corbin, 1998). The methodological frame used in axial coding consisted of the following elements (Borgatti, 1996): (1) phenomenon, defined as “the concept that holds the bits together”; (2) causal conditions, which represent the set of causes and their properties as the events or variables leading to the development of the phenomenon; (3) context as background variables, which represent a set of conditions influencing the action strategies; (4) intervening conditions as mediating variables; (5) action strategies which represent activities that “agents perform in response to the phenomenon and intervening conditions”; (6) consequences of the action strategies. Scott and Howell (2008) propose using a conditional relationship guide as a method which facilitates revealing the relationships among categories and the subsequent construction of patterns to contextualize the central phenomenon. This

instrument in the form of a matrix in place of a diagram engages the investigative questions recommended by Strauss and Corbin (1998). Scott and Howell (2008) argue that answering those questions allows organizing into a coherent pattern the concepts and categories created in open coding. The patterns produced represent a dynamic “complex, multidimensional constructivist ecology revealing each participant’s character in a group portrait” (p. 4). The dynamics of this ecology is referred to as process (Strauss & Corbin, 1998). Working through the investigative questions, I designed conditional relationship guide matrices for each of the 38 categories created in the open coding (see Appendix 7). Placing open codes and categories on the matrix allowed constructing a meaningful configuration of relationships between categories. This process of analytic coding entailed constant iterative movement between open and axial coding, reviewing and reworking the codes and the categories. The conditional relationship guide proved useful as a tool for further construction of a reflective coding matrix (see Table 6) and the following development of emergent theory, which was represented in a conditional matrix (Strauss & Corbin, 1998) (see Figure 3).

The selective coding is an interpretive process through which a theory emerges (Glaser & Strauss, 1967; Strauss & Corbin, 1990). At selective coding stage, the researcher, being selective about the data, integrates the codes at a more abstract level (Strauss & Corbin, 1998). Selective coding represents the process of integrating and refining the theory (Strauss & Corbin, 1998, p.143), which entails unifying all categories around a core category, and filling-in the categories which need explication with descriptive detail (Corbin & Strauss, 1990, p. 14). The core category, which represents the central phenomenon of the study, may emerge from among all the identified categories, or the researcher may develop an abstract term to explain the main phenomenon (Corbin & Strauss, 1990, p. 14). The other categories will always stand in relationship to the core category as conditions, action/interaction strategies, or consequences (Corbin & Strauss, 1990, p. 14). However, in the grounded theory scholarship, there are differing perspectives on the core variable being fundamental to grounded theory. Some grounded theorists discount the core variable (Charmaz, 2006). Glaser (2002) argues that the core category is the central variable, which accounts for most of the variation in the patterns of behaviour, and establishment of the core category leads to development of a major outline of interrelated categories (Holton, 2010, p. 31). Corbin and Strauss (1990) argue that the researcher arriving at the perception of the core category which integrates the entire analysis is a result of sufficient coding and a process of abstraction (p. 14). The conditional matrix provided at the selective coding stage helps the researcher to “keep track of the interplay of conditions, consequences and (inter)actions to trace their paths of connectivity” (Strauss & Corbin, 1998, p. 199). The aim of the last stage of coding is integration of a theory, which is “grounded in the data and has explanatory power” (Birks & Mills, 2015, p. 177). For conceptualization of the core category the researcher connects the categories into a discursive set of theoretical propositions (Strauss & Corbin, 1998). These theoretical propositions build a framework for enhancing the explanatory power of the findings and the potential of the storyline as a theory (Strauss & Corbin, 1990). The **storyline** technique is proposed for theoretical integration and presentation of research findings in a coherent grounded theory (Strauss & Corbin, 1990; Birks et al., 2009; Birks & Mills, 2015). The storyline is an important part of theoretical integration (Birks & Mills, 2015). Writing the storyline is aimed at fitting together the categories to form the grounded theory and is facilitated by an iterative analytic process (Birks & Mills, 2015). The theory created through selective coding is validated against the data (Strauss & Corbin, 1998).

In the present study, the reflective coding matrix (Scott, 2004) was used to link analysis of axial coding, and interpretation of selective coding. Scott and Howell (2008) propose that reflective coding matrix can be used as a tool for developing a central phenomenon. It also guided substantive theory generation through depicting the narrative story line which explains the dimensions and conditions of the phenomenon (Scott & Howell, 2008). Rooted in the traditional grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1998), this instrument enables “bridging” the constant comparative process when moving through the stages (Scott & Howell, 2008). It also helps to “ground” the abstract analysis by illustrating the theory with verbatim material. Grounded theorists (Strauss, 1987; Strauss & Corbin, 1998; Clarke, 2003) consider visualization of theories as inherent part of grounded theory methodology, which assists analysis and demonstrates conceptual relationships. The conditional relationship guide provided visual representation of the relationships between categories which was used for working out the patterns to support the central phenomenon. The selective coding allowed linking theoretical categories to the core category as conditions of the phenomenon or (inter)action strategies (process phases). The method of theoretical saturation was applied at this stage to review the categories. Throughout this phase I made use of the memos for the selective analysis and further development of theoretical categories. I employed reflective coding matrix as an instrument to visually display the processes of self-directed learning and facilitate the development of the overall theory. Finally, to represent the emergent theory, I constructed a conditional matrix (Strauss & Corbin, 1998) based on the reflective coding matrix. This instrument provided structural explanation by integrating relationships between categories. Writing the storyline in the present study enabled explication each of the categories and demonstration of how the categories of (1) positioning self-development in generativity, (2) constructing learning in later life changes-affected circumstances, (3) reconciling past and present (4) sustaining self-efficacy in learning in aging-restricted circumstances fit together to form the theory of self-development in informed generativity. The storyline demonstrated the substantive theory being grounded in the data.

Constant comparative analysis

The constant comparative method is the foundation of grounded theory (Glaser & Strauss, 1967). It includes concurrent data collection, coding, concept categorization, writing memos, theoretical sampling and writing. Constant comparison is carried out throughout the research process and involves comparing incidents, codes, categories, and concepts. The comparison is performed within the same group of data (i.e. comparing incidents with incidents, or categories with categories) or across the groups (i.e. comparing incidents with codes, codes with categories). Comparison of incidents may reveal subcategories of a given category, and relations to other categories. The researcher has to decide upon the criteria of variation between the incidents, which form the categories or subcategories (Kelle, 2019, p. 5). Comparison of new emerging categories with previously established categories leads to generation of theoretical properties of the category (Žydzūnaitė & Tauginienė, 2017, p. 29). The constant comparative method allows to discover “the latent pattern in the multiple participant’s words” and conceptualize the core category that resolves the main concern (Glaser, 2002, p. 3). Glaser (2002) points out the tedium of the constant comparative method linked with sensitive theoretical sampling to produce categories, which are constantly fitted to the data. In the present study, constant comparative analysis was conducted throughout the whole research process starting with open coding, through category development, axial coding, and selective coding to theory integration.

Writing memos (Memoing)

Memo writing (also referred to as memoing) is fundamental to grounded theory as an essential method in the analysis process. Its role is associated with “reasoning of the emerging theory as categories emerge and integrate” and also prevent “premature adoption of final theoretical framework” (Holton, 2010, p. 33). When proceeding with coding, the researcher may write memos to better capture the conceptual development of the theory. Grounded theorists recommend that the researcher keeps writing memos throughout the research process in the form of detailed notes of unfolding conceptual categories in a reflexive and comparative mode (Glaser & Strauss, 1967; Glaser, 1998; Charmaz, 2006). Memo writing is focused on the constant comparative approach as the researcher compares different individuals, experiences at different periods in time, categories and subcategories, concepts and conceptual categories, analysis and existing literature (Charmaz, 2006, p. 81). It allows starting to analyze data early in the research process and move the codes upward to the conceptual level of theoretical categories (Charmaz, 2006, p. 72), facilitate looking into implicit meanings, and elaborating on codes (p. 83). Birks and Mills (2015) point out the role of memos in building an audit trail of the research process and the detailed records of the analyst thinking. I wrote memos after open coding of each interview and then reviewed and continued through the process of axial coding. In the course of category development, I wrote conceptual memos with regard to the emergent theory (see Appendix 8 Example of memoing). Writing memos guided further theoretical sampling with the aim to generate more dimensions and properties of categories and sub-categories. Memoing allowed identification of incomplete categories and gaps in analysis. Memo writing helped me review my thoughts and build on them in further analysis of data. The individual processes occurring in each participant’s learning were woven together into generalizable patterns to be reflected in the theory.

Theoretical data saturation (conceptual density)

Corbin and Strauss (1990) link the explanatory power of a theory with the conceptual density of its categories and subcategories. They suggest that the researcher check the categories for conceptual density during selective coding, and identify those poorly developed categories which lack properties uncovered in the data. The researcher can “obtain data that will allow gaps in the theory to be filled” (Corbin & Strauss, 1990, p. 14) to achieve theoretical data saturation. Glaser (2001) associates saturation with theoretical treatment of categories by raising them to abstract level, although preserving connections with empirical data. Theoretical saturation is achieved when gathering new data neither gives new theoretical insights (Charmaz, 2006), nor contributes properties to theoretical categories (Glaser, 1978), and the categories are sufficiently developed (Birks & Mills, 2015). In the present study, identification of poorly developed categories and gaps in the theory was followed by revisiting and reviewing the data, theoretical sampling, and additional data collection. New data was incorporated to achieve theoretical data saturation and conceptual density of the categories.

Theoretical sampling

Theoretical sampling is a salient characteristic of grounded theory methodology (Glaser & Strauss, 1967; Bryant & Charmaz, 2007; Mills et al., 2014). Theoretical sampling is defined as a process whereby the researcher identifies and pursues clues that arise during analysis (Birks & Mills, 2015, p. 68) and makes decisions about the type and source of further collection of pertinent data in

order to develop the emergent theory (Holton, 2010, p. 28). These decisions are due to the very logic of the analytic process in grounded theory methodology, when further collection of data is determined by the development of categories through initial analysis and is pertinent to further conceptual and theoretical development of categories. The objectives of theoretical sampling include delineating the properties of categories, checking “hunches” about categories, saturating categories, distinguishing between properties, clarification of relationships between categories, identification of variation in a process (Charmaz, 2006, p. 104). It focuses on data generation “to feed the iterative process of continual comparative analysis” (Birks & Mills, 2015). As pointed by Charmaz (2006), theoretical sampling involves constructing tentative ideas, and examining them through further empirical inquiry (p. 102). Theoretical sampling is associated with the strategies of saturation and sorting (Glaser & Strauss, 1967; Glaser, 1978; Strauss, 1987; Charmaz, 2006). When the researcher develops a set of categories, he or she checks them for saturation in terms of properties and dimensions, and then is able to identify the gaps in the emerging theory. At this stage the researcher is able to make an informed decision about the type and source of conceptually rich data required to fill the gaps. During theoretical sampling the researcher focuses on theoretical categories, which leads to sampling across substantive areas (Charmaz, 2006, p. 106). The aim of theoretical sampling is theoretical elaboration and refinement of the categories in the emerging theory (Charmaz, 2006, p. 96). The criteria that guide further data collection are associated with theoretical purpose and relevance to theory generation. These theoretical criteria are “continually tailored to fit the data” (Holton 2010, p. 28). As pointed by Glaser and Holton (2004), the researcher adjusts the control of data collection to ensure its relevance to the emerging theory. Theoretical sampling is continued to saturate the categories with new data until no new properties emerge (Charmaz, 2006, p. 96). Aligned with constant comparative analysis, theoretical sampling raises the conceptual level of data analysis (Birks & Mills, 2015). Charmaz (2006) proposes that researchers conduct theoretical sampling in both early and later stages of research, after they have tentatively conceptualized relevant ideas for probing into certain areas with more data and have categories to direct their sampling (p. 107). In the present study, theoretical sampling was employed at the axial and selective coding stages. Having completed open coding of initial interview data and constructed preliminary conceptual categories, I checked the categories for conceptual density to identify the level of their development. I reviewed the “poor” categories going back through the open and axial coding to revise the coverage of properties in the data. Theoretical sampling was employed in order to explicate my categories so that they fully reflect the qualities of the respondents’ experiences. I sampled to further develop my categories – their properties and range of variation. Through theoretical sampling I searched for statements and incidents to explain and elaborate on the categories. This involved adding some new information-rich participants, and also approaching some of the earlier participants again to provide relevant information. In the following interviews with the earlier participants I asked further questions to elaborate on some additional issues that had not been covered before, and elaborate on some tacit views. Thus, re-interviewing was focused on particular theoretical categories. I used theoretical sampling to deal with gaps, ambiguities in the course of data analysis and checking ideas for the development of categories. Theoretical sampling led to looking into the issues of the attitudes of other people in the participants immediate environment towards the quality of their generative activity, as well as the aspects of learning through relationships with older and younger generations. For example, in one of the initial interviews a participant spoke about her “keeping a professional attitude” towards encounters with a younger generation. This value laden statement guided me in asking participants in further interviews how

much their pre-retirement profession influenced their present involvement in generative activity. The theoretical sampling strategy helped me to raise the analytic level of categories by specifying relevant properties, increasing the precision of categories, by disclosing the dimensions of variations, as well as explaining the relationships among categories.

Theoretical sensitivity

The concept of theoretical sensitivity was introduced by Glaser and Strauss (1967) as a salient element of grounded theory methodology. It was defined as the researcher ability to have “theoretical insight into the area of research” and to use it in one’s analysis. Glaser and Strauss (1967) acknowledge that an empirically grounded theory comprises concepts from existing theories categories and hypotheses in combination with the categories which have emerged from the data. Theoretical sensitivity is associated with the researcher ability to identify relevant data, recognize theoretical connections and identify a set of abstract concepts by means of theoretical terms. Strauss (1987) places emphasis on the development of empirically grounded categories in a theoretically informed mode by translating a piece of the data „into a precis of it” (Strauss, 1987, p. 29). The researcher’s theoretical background knowledge contributes to theoretical sensitivity and informs his or her research in multiple ways (Corbin & Strauss, 2008, p. 32). In the present study, theoretical sensitivity was adhered to throughout the research process including both data collection and analysis. I applied it when judging the meaning of each item of the data and its importance and relevance to the theory development. When conducting my research, I aimed for a balance between “keeping an open mind” and the ability to identify theoretically significant concepts (Birks & Mills, 2015). “Immersion in the data” was used as a technique to enhance my theoretical sensitivity to analytic possibilities (Birks & Mills, 2015). The other analytic techniques used to stimulate theoretical sensitivity included extensive reading of literature, writing reflective memos, and following the newly opening lines of inquiry by theoretical sampling of emergent concepts.

2.5 Construction of theory

Theories are generally defined as interrelated sets of statements claiming to establish ‘general principles’ by means of which a variety of empirical phenomena can be described or explained” (Hempel, 1952, p. 1, as cited in Kelle, 2019, p. 13). The grounded theory methodology aims at development of “grounded” (i.e. empirical data based) theoretical categories and statements. The categories developed must not be abstract as a “theory really “grounded” in the data should have enough empirical content to provide readers with meaningful information about previously unknown or poorly understood domains (of social life)” (Kelle, 2019, p. 18). Glaser (2002) warns against a theory being descriptive. He advocates a substantive theory which is transcending abstraction from time, place and people that “frees the researcher from the tyranny of normal distortion by humans trying to get an accurate description to solve the worrisome accuracy problem” and puts the focus on concepts that “fit and are relevant” (p. 2). The grounded theory is conceptual and “provides an abstract distance from the data” (p. 6).

In the grounded theory scholarship, there is no consensus approach to grounded theory development methodology (Puddephatt & McLuhan, 2019). The processes involved in constant comparative analysis are assumed to involve induction (Glaser & Strauss, 1967), deduction (Strauss

& Corbin, 1990; Charmaz, 2006), abduction (or retroduction) (Charmaz, 2006; Timmermans & Tavory, 2012; Kelle, 2019) processes. In view of classic grounded theory methodology (Glaser & Strauss, 1967; Glaser, 2002), a substantive theory is produced through an inductive iterative analytic process. Following the evolved grounded theory approach, Strauss and Corbin (1990) argue for the analyst drawing on previous experience to deductively arrive at hypotheses in axial coding. However, “all hypothetical relationships proposed deductively are considered provisional until verified repeatedly against incoming data” (p. 13). Glaser and Strauss (1967) warn against forcing preconceived categories on the data instead of letting the categories emerge. The constructivist approach adopts both inductive and deductive thinking (Charmaz, 2006). Timmerman and Tavory (2012, as cited in Puddephatt & McLuhan, 2019, p. 142) critiqued the assumption of analytic induction as a sole method behind theory emergence through processes of comparison. They argue that theorizing inevitably requires a process of “abduction”, which is a middle phase of analysis between induction and deduction. Abduction is defined as “the process by which theoretical ideas and hypotheses are constructed in relation to emergent data as they are creatively interpreted and organized by the human mind” (Puddephatt & McLuhan, 2019, p. 143). Through the process of abduction, the researcher examines data “to imagine and select patterns, attribute causal sequences, and generate typifications in developing concepts, theories, and hypotheses” (Puddephatt & McLuhan, 2019, p. 143). The abductive nature of grounded theory is associated with a particular form of reasoning “about experience for making theoretical conjectures and then checking them through further experience” (Charmaz, 2006, p. 103). Charmaz (2006) points to abductive inference in “considering all possible theoretical explanations for the data, forming hypotheses for each possible explanation, checking them empirically by examining data, and pursuing the most plausible explanation” (p. 104). Kelle (2019, p. 18) argues that “since categories cannot emerge from data on their own”, the grounded theory methodology faces the challenge of reconciling the need for letting categories emerge from the data with the impossibility to abandon previous theoretical knowledge (Kelle, 2019,18). Kelle (2019) proposes retroduction as a logical foundation of the theory building to combine the two strategies by using existing theories and models in an epistemologically informed way. Retroduction (an inference in induction leading to hypothesis) is explained as a kind of inference whereby a new category emerges through “a creative combination of empirical data with previous theoretical knowledge” (Kelle, 2019, p. 18). Empirical data may be connected with theory either by means of qualitative induction (i.e. subsuming the observations under already known categories) or abduction (i.e. finding new categories). Kelle (2019) argues that theoretical categories drawn from grand theories “may sensitize researchers for theoretically relevant phenomena in the field” and “serve as heuristic devices for the construction of empirically grounded categories” (p. 15-16). As these “sensitizing concepts” (term proposed by Blumer in 1954) lack empirical content, they “fit various kinds of social reality” and suit explorative, interpretive research because they do not force the data (p. 16). Kelle (2019) suggests that the researcher may use a variety of concepts from differing or even competing theoretical approaches as heuristic devices. Thornberg (2012) proposes adopting the theoretical pluralism perspective to data treatment which provides “flexible choices among different extant concepts and ideas”, and enables the researcher to be open to all kinds of observations rather than confining to certain aspects. By considering different pre-existing theories, the researcher can take a critical stance and remain theoretically agnostic during the analysis (p. 250). The finished grounded theory is viewed as conceptual analysis of patterned relationships as well as relationships outside the pattern which suggest variations in a process and alternative interpretations (Charmaz,

2006, p. 181). Timmermans and Tavory (2012) recommend that for analysis of emergent data researchers employ a broad interpretive schema formed on the basis of many substantive topics, theories and models. The researcher's task is to assess, extend, adjust, refine or even reject the existent prior conceptual categories (Puddephatt & McLuhan, 2019, p. 145). The contemporary generation of grounded theorists argue for a conceptual framework as a "valuable tool to the theoretical imagination", and for prior conceptual schemas to be employed, explicated, and adapted by the researcher undertaking a grounded theory study (Puddephatt & McLuhan, 2019, p. 145).

In the present study, both qualitative induction and abductive inferences were employed to pursue development of grounded theoretical categories. In line with the retroductive strategy, categories with low empirical content (e.g. agency, status, role, positioning, professionalism) were applied when investigating older adults' engagement in informed generativity. Thorough examination of educational gerontology, self-directed learning and generativity theories facilitated building an explicit conceptual frame in advance. This predefined "coding paradigm" represented qualitative induction when empirical data was assigned to certain categories. On the basis of literature review in the fields of older adulthood, self-directed learning, and generativity, I drew extensive lists including a wide array of potential "sensitizing concepts" to be referred to in the process of coding. For example, using educational theory concepts with low empirical content (as referred to self-directed later life learning), I coded and grouped incidents which referred/related to learning motives, goals, context, strategies, and outcomes of the research participants. Another type of "heuristic categories" were associated with "topic-oriented codes" (Kelle, 2019). They were related to the knowledge of the field of study (in vivo codes) and were found in the data during open coding. To prevent "forcing data", I constantly questioned whether the theoretical concept does not contain too much empirical content to be used as a "heuristic device". Constant comparative method and theoretical sensitivity were employed as analytical strategies to fill the categories with specific empirical content to provide meaningful information about the phenomenon of study. I employed abductive reasoning when examining the data for patterns and causal sequences. I explored the data in pursuit of theoretical explanations, forming hypotheses, and checking them empirically against the data.

2.6 Research ethics

Ethical considerations with respect to the respondents' rights, needs, values and desires are an important aspect of qualitative research design (Creswell, 2014, p. 258). As observed by Charmaz (2006), "human beings are unlikely to relish being treated as objects from which you extract data" (p. 110). Therefore, a special emphasis should be placed on reciprocity. Reciprocity was established in the present study at the initial stage, as the participants were interested in becoming part of empirical research. Participants appreciated the opportunity to contribute to research with their insights, and showed that participation was important to them. Some of the participants asked about the availability of the articles prepared on the basis of the present research in the future.

In the present study, in order to protect the participants' rights, the following safeguards were provided: (1) the participants were informed verbally about the research objectives, the process of data collection and usage; (2) the participants signed a written consent form to participate in the research which also provided information about the research objectives and data usage; (3) the verbatim transcriptions of the interviews were approved by the participants; (4) the participants' rights

and wishes were given due attention when considering reporting the data related to sensitive information; (5) the participants' anonymity was preserved by removing any information which might identify the participants; (6) the participants were informed about their right to withdraw from the research if they found it difficult; (7) in order to provide a safe space, the participants were given the choice of being interviewed either at their own place or a public place; (8) the participants were made feel comfortable with the interviewer and the interview process making sure they realized they wanted to disclose certain information.

2.7 Trustworthiness and research limitations

This section of the study will provide an overview of the research process in respect to the methods which were employed to ensure the quality and trustworthiness of research.

The theorists of qualitative research argue for specific criteria to be applied for evaluation of the quality of a research study, which are distinct from those used in quantitative research (Lincoln & Guba, 1985; Denzin & Lincoln, 2000; Patton, 2002; Creswell, 2007, 2014). Being criticized for lacking scientific rigor (Mays & Pope, 1995; Koch & Harrington, 1998; Shenton, 2004), qualitative research theorists argue that subjectivity, the researcher bias, and lack of generalizability may be managed by applying adequate methods in data collection, analysis and reporting of research findings. The perspectives of credibility and trustworthiness have been introduced as alternative to the perspectives of rigor and validity in qualitative research (Cope, 2014). The concept of trustworthiness thoroughly described in works of Lincoln and Guba involves the criteria of credibility, transferability, dependability, confirmability, and authenticity (Lincoln & Guba, 1985, 1989, 1994). Secondary criteria proposed in qualitative scholarship include consistency, dependability, reliability, vividness, transparency, reflectivity, authenticity, congruence (Guba & Lincoln, 1994; Patton, 2002; Creswell, 2014), which are used as complementary to improve the quality of research. Whittemore et al. (2001) propose distinction between primary and secondary criteria of qualitative research validity, adding criticality and integrity to credibility and authenticity.

Charmaz (2006) identifies the following criteria to be essential for grounded theory studies: credibility, originality, resonance and usefulness. Originality lies in the new insights the categories offer, a novel conceptual rendering of the data provided by analysis, social and theoretical significance of the study, and challenging, extension or refinement of current theories (Charmaz, 2006, p. 182). Resonance is associated with the extent the grounded theory is understood and accepted by participants or other individuals who share their circumstances, and provides a deeper insight into their lives and worlds (Charmaz, 2006, p. 183). Usefulness is related with the extent the study contributes to knowledge and sparks further research (Charmaz, 2006, p. 183). The quality of a grounded theory is facilitated by the researcher's expertise, methodological congruence with the research issue and rigorous application of methods (Birks & Mills, 2015). The researcher expertise is represented by extensive knowledge of the research area and research skills. Methodological congruence is observed through the congruence of the researcher philosophical position with the methodological approach to the research study (Birks & Mills, 2015). The rigour in the application of essential grounded theory methods throughout the research process ensures quality of the generation of an integrated, substantial grounded theory. The precision of following the essential grounded theory procedures is associated with maintaining an audit trail, strategies of managing the

data and demonstration of decision making in using memos (Birks & Mills, 2015). Corbin and Strauss (1990, p. 16) point to four issues to be distinguished when evaluating a grounded theory study: (1) validity, reliability and credibility of the data; (2) plausibility and value of the theory; (3) adequacy of the research process; (4) empirical grounding of the research findings. Adequacy of the research process is associated with detailed reporting of how the researcher carried out the analysis, and supplementing it with appropriate cues. Corbin and Strauss (1990) propose a set of essential criteria to judge the adequacy of the research process, including description of the following: selective sampling, major categories, indication of major categories by events, incidents, actions; theoretical sampling; formulation of hypotheses; accounting for discrepancies; selection of the core category. Empirical grounding of findings is represented by the essential criteria, which include generating concepts; systematic relations of concepts; conceptual density; range of variations; broader conditions; identification of the process; significance of theoretical findings (Corbin & Strauss, 1990, p. 17-18). The researcher should discuss their procedural operations to ensure adequacy of the research and explicitly convey the research limitations. (Corbin & Strauss, 1990, p. 20).

In the present study I invoked the safeguards common to grounded theory research to ensure credibility, dependability and confirmability. In what follows I will articulate my considerations of the issue of transferability supported by arguments from leading grounded theorists, and explicate how the issues of trustworthiness of the study were addressed.

The issue of transferability

The notion of transferability probes applicability in other contexts (Lincoln & Guba, 1985). Thick description is proposed as a strategy adding to the validity of findings (Creswell, 2014, p. 251). As described by Lincoln and Guba (1985), it is a method for achieving external validity. The researcher is expected to describe the findings in such detail that allows assessing the extent to which they may be transferred to other settings and people. The detailed account of cultural and social relationships makes the context explicit (Holloway, 1997). However, the issue of transferability is still disputable in qualitative literature, and there is no consensus among qualitative research theorists. Qualitative generalization is used in a limited way as this paradigm of inquiry is not aimed to generalize findings outside the contexts and individuals under the study (Shenton, 2004; Gibbs, 2007; Creswell, 2014). Following the qualitative paradigm, the participants' experiences are unique, and therefore not generalizable (Creswell, 2014). As pointed out by Creswell (2014), "the value of qualitative research lies in the particular description and themes developed in the context of a specific site" (Creswell, 2014, p. 253). Therefore, due to the interpretive nature of qualitative research, the research outcomes cannot be generalized to particular populations. Corbin and Strauss (1990) argue that "a grounded theory is reproducible in the limited sense that it is verifiable" as it is "very difficult in social realm to set up experimental or other designs in which one can recreate all the original conditions and control all extraneous variables impinging upon the phenomenon under investigation" (p. 14). However, a grounded theory study must specify both the conditions under which a phenomenon has been discovered in particular data, and the range of the situations to which it applies or has reference. Therefore, "the more abstract the concepts, especially the core category, the wider the theory's applicability". (Corbin & Strauss, 1990, p. 15).

Credibility

The notion of credibility denotes truthfulness of findings in respect of their representation of the participants views by the researcher. The strategies for establishing credibility employed by the researcher may include persistent observation, negative or deviant case analysis, or referential adequacy peer debriefing, prolonged engagement, member checking, or triangulation (Denzin, 1978; Lincoln & Guba, 1985; Patton, 1999). The researcher is generally expected to describe their research experiences and verify the findings with respondents. Charmaz (2006) associates the credibility of a study with the depth and scope of data - the study based on substantial, relevant data should meet the criteria of suitability and sufficiency in terms of range and depth of observations (p. 18). The other criteria include providing links between data, the argument and analysis, and sufficiency of evidence (Charmaz, 2006, p. 182). Charmaz (2006) places an emphasis on the aesthetics of writing claiming that a valuable contribution requires an aesthetic merit combined with theoretical statements and scientific rationales, which results in a grounded theory that “conceptualizes and conveys what is meaningful about a substantive area” (p. 183). The methods used for ensuring credibility in the present study included member checking, and theory/perspective triangulation (Denzin, 1978; Patton, 1999, 2002).

Lincoln and Guba (1985) consider member checking essential for credibility emphasizing its importance for the validity of the account. Member checking is generally defined as taking ideas back to research participants for confirmation (Charmaz, 2006). In the present study, member checking was employed in respect to accuracy of representation of participants’ views, experiences and meanings to make sure that attribution of meanings to the terms used by participants corresponds the meanings attributed by the researcher. Language use by the participants may be analyzed in the way that allows to find out the assumptions and the meanings underlying the actual words. Member checking was carried out through approaching the participants again and asking them to review their personal reports to make sure the texts accurately expressed the ideas they shared during the interviews (Lincoln and Guba, 1985). Member checking was used in the form of a dialogue between the researcher and the participant to make sure the researcher’s interpretations corresponded to the participants’ realities and meanings they attribute (Creswell, 2014, p. 259). Most reports were confirmed as accurate, and only some participants wanted to make some minor corrections.

Triangulation strategy was applied in the perspective of triangulation of theoretical framework for data analysis. Within qualitative research, triangulation may be also viewed as a strategy leading to deeper understanding, justifying and underpinning knowledge of the issue under investigation by gaining additional knowledge rather than a validation strategy (Denzin & Lincoln, 1994; Flick, 2004). Denzin (1989) suggests four forms of triangulation: (1) triangulation of data; (2) investigator triangulation; (3) triangulation of theories; (4) methodological triangulation ‘within method’ and ‘between method’. In the present study, the theory (or perspective) triangulation was chosen for examination and interpretation of data by using multiple theoretical perspectives (Denzin, 1978; Patton, 1999; Flick, 2004). Triangulation of theoretical framework for data analysis was implemented through adoption of a combination of theoretical perspectives related to the three constructs of the research issue: educational gerontology, social constructivist paradigm and the life-course perspective as gerontological basis. The concept of the triangulation of learner competences, process and context was viewed as essential for understanding the dynamic of self-directed learning (Hiemstra & Brockett, 2012, p. 158). Within-method triangulation is recommended to be used to systematically unite methodological approaches (e.g. semi-structured interview and narrative) in a complementary

way using their respective strengths and open up complementary perspectives on the research issue (Flick, 2004). In the present study, within-method triangulation was used in the interview combining different modes of questions to explore the research issue: the participants were invited to narrate on their lived experiences in particular situations, to provide their concept of (the meaning) of later life learning or understanding of obstacles to learning in general.

Dependability

Dependability looks into how findings are consistent and could be repeated. The inquiry audit technique is used as a common strategy to establish dependability (Lincoln and Guba, 1985). In the present study, detailed descriptions of the strategies and procedures undertaken in the data collection and analysis stages are provided to ensure external validity. Such reporting provides an accurate picture of the methods used (Merriam, 1988). All the phases of the present study were subject to scrutiny by an experienced research supervisor. Reliability and internal validity were ensured by providing a detailed account of the researcher's role, the basis for participant selection, and the context of data (LeCompte & Goetz, 1982). Clarification of researcher bias was performed through its articulation in the *Researcher position* section. In the present study, I conducted all the interviews and digitally recorded and verbatim transcribed each interview myself. The interviews were followed by writing down my reflections on observation of the way participants responded to the questions in research notes, which provided additional insight into the data (Creswell, 2014). Detailed description of data analysis procedures following data coding stages, usage of conditional relationship guide and reflective coding matrix as analytical tools (Scott & Howell, 2008), demonstration of the logics of the development of theory validate the thoroughness of the research process undertaken in the present study. Data consistency and reliability was enhanced by meticulous use of the methods and principles which are inherent to grounded theory research: purposeful theoretical sampling (Creswell, 2014), sufficiency of data, systematic comparisons between categories, strong logical links between the data, the argument and analysis (Charmaz, 2006, p. 182). The application of the aforementioned principles and methods is explicated in the *Data analysis* section.

Confirmability

Confirmability establishes the extent to which findings represent participants' views and are neutral of researcher bias (Lincoln & Guba, 1985). An audit trail, confirmability audit, triangulation and reflexivity are recognized as common techniques to enhance confirmability. In the present study, confirmability was addressed by creating an audit trail and clarification of researcher bias (reflexivity/perspective or position of the researcher). An audit trail generally involves describing the steps performed by the researcher throughout the research process and takes the shape of materials and notes documenting the researcher's decisions. The collection of materials includes transcripts of interviews, field notes, theoretical notes, methodological notes, memos, summaries etc. The establishment of audit trail in the present study was ensured through transcription of interviews verbatim and validation against original digital recordings. The process of comparative work and analysis lasted for eighteen months until the eventual conceptualization of the findings according to the requirements of grounded theory. Repeated interviews with some of the participants after a period of fourteen months allowed for some elements of "prolonged engagement" (Lincoln & Guba, 1985), which more fully informed the researcher's insight into the participants perceptions of and meanings they attribute to their learning. Reflexivity was employed to clarify the bias of the researcher

(Creswell, 2014, p. 252). Researcher bias may affect the study in the way that researcher may focus on the data which supports his/her expectations. Reporting of potential bias in terms of the researcher values affecting data collection and analysis by the researcher is considered preventive (Maxwell, 2005). The researcher should also be aware of “reactivity” and control for it. Reactivity is defined as the researcher influence on the participants in terms of their reports, and consequently on the inferences from the findings (Maxwell, 2005). The issue of reflexivity was considered due to the fact that in grounded theory approach the researcher plays the role of a research instrument who translates the data into findings. In the present study the researcher both collected and interpreted the data, which might have influenced research bias or sensitizing concepts (Charmaz, 2003). Reflection on the research processes creates a narrative including the researcher revealing how their background influences interpretation of findings (Creswell, 2014, p. 253). Reflexivity is also defined as the awareness of how the research process may be affected by the researcher’s background, values and experience (Cope, 2014). In the Researcher position section of the present study I explicitly state how the issue of avoidance of researcher bias was addressed. The above section clearly reveals my thoughts on and efforts to question subjectivity in perceptions and interpretations. Authenticity is defined as the extent the participant’s perceptions and experiences are represented in a truthful manner (Lincoln & Guba, 1994). In the present study authenticity is considered a primary criterion, which is enhanced by reporting the findings in a descriptive approach and providing extensive participant quotes. I also applied the principles of criticality and integrity. Criticality is defined as critical assessment of the data and interpretations (Whittemore et al., 2001). Integrity is described as employment of critical reflection on the validity of the data interpretations (Whittemore et al., 2001). These two criteria were considered essential to the present study as in grounded theory approach inductive theory development through data analysis (Glaser & Strauss, 1967) involves a high level of interpretation.

Research limitations

The limitations of research on the self-directed learning of older adults in the generativity-based contexts were related to the issues of limited research in the area of older adult learning and generativity. (1) There has been little research available on self-directed learning in later life, and learning through generativity in particular, which made it difficult to compare the results of the present study with those in the field. Due to these limitations, the research results were compared to those obtained through investigating other groups of learners in different contexts. (2) The lack of research on the relationship between generativity and learning also limited the theoretical basis for analysis of the data in terms of the limited availability of concepts, models, and theories, which could have facilitated the theoretical sensitivity at a larger extent. (3) When analyzing the concept of self-directed learning, the broad interpretation of the term in educational literature had to be taken into consideration. To avoid ambiguity, the usage of the term was limited to its specific meaning and explicated to define the type of learning which was the focus of the scientific inquiry. (4) The nature of the issue of research, which is related to personal experiences of individuals learning, limited the availability of a variety of data collection sources. The interview was used as the only method of data collection for its potential to explicitly represent participants’ accounts of their perceptions and experiences.

2.8 The issue of translation

In this section of the study I will provide an account of the translation processes employed in the development of research findings from Lithuanian as a source language to English as a target language. I will also present my methodological considerations of the issues of translation which were aimed to enhance transparency of the translation process, and credibility of the research findings. The need for translation was based on the fact of two languages being used in the research process – the Lithuanian language as the language employed for collecting empirical data from research participants – native speakers of Lithuanian, and the English language as the language employed for analyzing and presenting the research results. My role of the researcher in the present study combined my work as an analyst and a translator. The combined role of a researcher-translator provides the researcher opportunities for close attention to culture-related meanings and the problems of meaning equivalence (Temple & Young, 2004, p. 168). When undertaking this cross-language research project, I believed that my educational background and experience had allowed me to acquire the competences needed for dealing with translation in an effective and proficient manner. Having an MA in English Philology, and over twenty-years' experience of translation and interpretation, I felt confident about my language proficiency and translation skills to combine the role of the researcher with that of the translator for the purposes of the present study. My bilingual work on the present study included conducting the interviews with participants, transcribing the interview data, and doing open coding in Lithuanian, followed by consecutively translating the initial codes into English. The further analytic process was performed in English, as well as presenting and writing up the research results. The selected excerpts of the interview data were translated into English when writing memos and providing quotes from the interviews. The conceptualization work and discussion of the research results in English was closely related to reading academic literature, which was mostly available in English, with very few sources available in Lithuanian. In qualitative cross-language research, the issue of translation is closely related with the methodology of research. In the present study, due to the bilingual nature of my research work, I gave careful consideration to the issues of language and translation at the initial design stage of my research, and also throughout the coding and theory development stages. Considerable debate in academic literature over doing translation in qualitative research shows the complexity of the issues of translation, especially regarding timing of translation (Santos et al., 2014), the role of translation in coding processes (Tarozzi, 2019), and the transfer of meaning during the process of translation (Ho et al., 2019). In the present study, there were three major issues that I had to resolve: the timing of translation, the interplay between translation and conceptualization processes, and transfer of meaning between two languages.

The issue of timing of translation is grounded in theoretical and epistemological/ontological issues (Temple & Young, 2004; Santos et al., 2014). The researcher needs to answer the question: At which point does the language change in the research continuum from the researcher conducting the interview with the participants reporting their experiences during an interview conducted in their mother tongue to English as the language of finally presenting the results of the research in the form of a grounded theory. In grounded theory methodology, the researcher is not forced to choose one language over another in most of the coding processes, as pluri-linguistic coding allows for more sophisticated labelling of concepts and capturing phenomena (Tarozzi, 2019). However, the researcher/translator is required to “exert interpretive and analytical acts” in the source language to understand meanings, and recourse to English as more appropriate at a later stage of coding, which

requires a higher level of conceptualization (Tarozzi, 2019). Some scholars (Chen & Boore, 2010, as cited in Tarozzi, 2019) support the idea of developing the concepts and categories in the source language and delaying translation until later stages of research. Delaying the translation until a later stage of a research study is also justified by preserving “the ties between language and identity/culture” (Temple & Young, 2004, p. 168). In this study, I adopted a bilingual approach at the first stage of the analytic process of performing open coding. When reading the verbatim transcripts of interviews in the original language, I labelled the segments of texts with codes in both languages – Lithuanian and English. I labelled each significant fragment of the text with a conceptual code in Lithuanian and consecutively translated it into English. This approach was adopted for ensuring the trustworthiness of research results and gradual change of language. My choice was justified linguistically, as it allowed me to name the processes and phenomena in the language by means of interpretation based on reformulation and rewording. Simultaneous usage of both languages at the open coding stage allowed me to change from the original language to the target language of the research. Moving to the following stages of coding required a higher level of conceptualization and writing up the final theory in English as the target language of research. This approach of preserving the data in the source language proved logical and useful, as it allowed me to return to the original text in later stages of analysis when searching implications for concepts and elaborating the categories with properties embedded in the data.

Open coding in Lithuanian as the source language ensured that the codes were closely capturing the details of the processes and phenomena, and the concepts adequately represented the data. Tarozzi (2019) argues that translation plays a major role in both interpretation of data and analytic processes due to the similarities between translation and the grounded theory analytic process. In grounded theory research, translation allows for greater analytical detail in the way it increases the researcher’s capability to understand data and “offers sophisticated interpretive instruments helping to refine analysis”, when translation acquires significance as a heuristic device for abstracting concepts from data (Tarozzi, 2019). Translation of the participants’ texts when writing memos contributed to focusing attention on the concepts emerging from the data in the source language, and constantly comparing not only the incidents and events in the data, but also the meanings of the terms and concepts in both languages. The consecutive interlinguistic translation allowed me to ensure exact correspondence between the codes and concepts in both languages. Simultaneous processes of translation and analysis enhanced the theoretical conceptualization and ensured the grounding of the findings in the data.

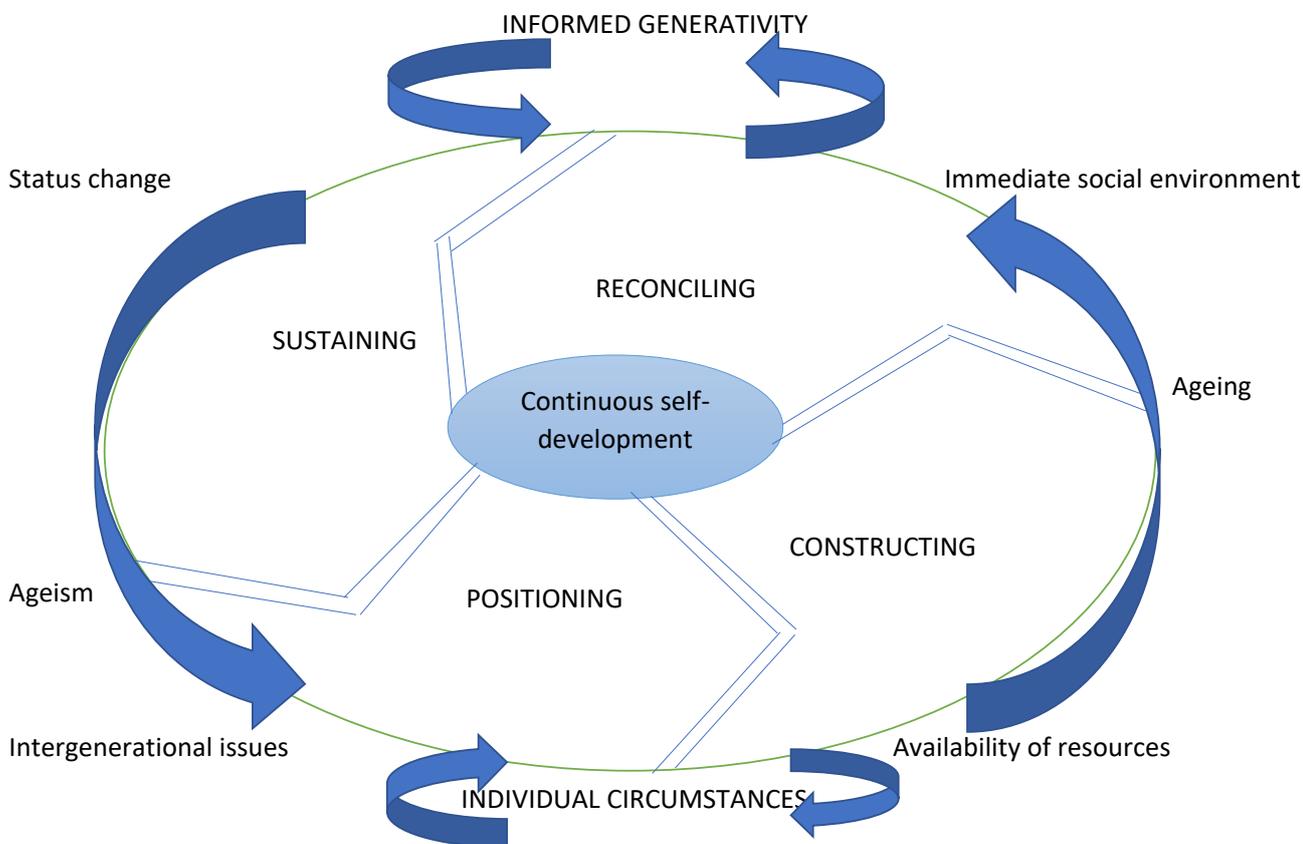
I performed the translation of empirical data from Lithuanian into English at the final stage of writing up the thesis when demonstrating the grounding of the categories by providing direct quotes from the interviews. The selected quotes had to provide evidence to the interpretation of the meaning of the data and the emergence of the theory. The issue of transfer of meaning is grounded in the sociolinguistic and cultural issues, and makes the researcher/translator consider the influence of social context reflected in the empirical data (Ho et al., 2019). The translator has to give serious considerations to the issues of translation related to the fact that representation of social context may vary in different languages. The translation of the empirical data in the form of participants’ words was performed following the theoretical perspective of sociolinguistics, which emphasizes functional equivalence of the texts in the source language and the target language. Such equivalence is based on the translator focusing on the semantics in the process of abstraction to represent the meaning (Tarozzi, 2019). The researcher has to place importance on the accuracy in conveying the meaning

of a participant's report, which is contextually dependent, and related to a wider discourse (Ho et al., 2019, p. 2). In methodological literature on cross-language research there are the terms of „domesticating” and „foreignizing” (Venuti, 1995, as cited in Tarozzi, 2019) used to name two differing approaches to preserving the cultural differences embedded in the text. The researcher has to make an important choice between cultural assimilation of the text and maintaining the cultural differences expressed in the source language, although undermining the fluency of the text in the target language (Tarozzi, 2019). The researcher's awareness of the sociocultural issues and proficiency in both languages are essential to ensure equivalence of concepts and meaning of the text translated. I believe that my extensive experience in translation and proficiency in both languages enhanced my ability to capture and express the subtle cultural differences by linguistic means when translating the empirical data. In the coding process I produced “vivo codes” as word-to-word translation of the original expressions used by the participants, to provide a greater analytical power (Tarozzi, 2019). For example, I made direct translation of the symbol of “lighthouse”, which a participant used to describe the role of retired professionals in the community. In the Lithuanian culture, the meaning of this symbol is associated with setting a positive model for others to be followed. In the Anglo-Saxon culture represented by the English language it is a symbol of overcoming challenges and adversity, and a way forward or guidance. The participants used a variety of peculiar Lithuanian words and slang expressions associated with senility, translation of which involved thorough examination of the semantic components of the words to transfer connotations from the original text to the translated text. Preserving the meanings of the original texts and discovering the implicitness in participants' words embedded in their socio-cultural context required to combine profound understanding of socio-cultural aspects, linguistic proficiency in cross-language comparison and theoretical sensitivity. The concepts that were identified in relation to participants' accounts stimulated a closer attention to the nuances of the meaning and significance to the development of categories and the emerging theory.

3 ANALYSIS OF THE RESEARCH RESULTS OF THE SELF-DIRECTED LEARNING OF OLDER ADULTS IN GENERATIVITY-BASED CONTEXTS

The qualitative research based on the grounded theory methodology of data analysis allowed to develop a theory of the self-directed learning of older adults in generativity-based contexts (see Figure 3 The diagram of Grounded theory). Following the constructivist paradigm of the grounded theory, the research revealed how older adults create and utilize their learning through engagement in informed generativity in aging restricted circumstances. The literature review of research on older adult learning shows that older adult self-directed learning is related to the adaptive processes of living in old age – development of a lifestyle of an ageing individual, which allows to cope with ageing-related changes, and achieve an adequate quality of life conceptualized as “successful ageing”. The concept of self-directed learning in later life has not been related to the concept of generativity as older adults’ continued participation to benefit the following generations. Generativity as a psychosocial concept has not been considered in the perspective of a context for later life learning as continued personal and social development. The present research demonstrates that self-directed learning is undertaken by older adults in the contexts of generative concern, commitment, action and personal narration. The impetus for self-directed learning is embedded in an older person’s pursuit of informed performance in generativity. The results of the study revealed that in the generativity-based contexts self-directed learning goes beyond adaptive processes, and involves the processes of positioning self-development in generativity, constructing authentic learning opportunities, integrating pre-retirement learning experience with post-retirement learning needs, and sustaining self-efficacy in learning. Self-directed learning in pursuit of informed generativity encompasses the elements of authenticity of the learning environment, and reflective learning experiences. Adaptive processes are incorporated into learning for self-care as an expression of generativity in ageing-restricted circumstances, and comprise a significant part of the learning context.

Figure 3. Grounded theory of Older adults' self-directed learning in informed generativity



3.1 Sustained authentic learning in informed generative performance: a grounded theory study of older adults' self-directed learning in generativity-based contexts

Later life as a developmental stage is generally associated with reduced social participation and decline (or anticipated decline) in a person's physical, cognitive and mental abilities. Ageing-influenced circumstances affect further personal development undertaken by older adults by their engagement in self-directed learning. Self-directed learning occurs as a process of self-development in pursuit of self-actualization continued throughout the life stage of later adulthood.

The grounded theory explains the process of how the phenomenon of continuous self-development in informed generativity is manifested in older adults' self-directed learning. Informed generativity provides meaningful contexts for sustained later life learning, and acts as both the motivator and consequence of learning. Older adults continue their personal growth by engaging in self-directed learning motivated by pursuit of informed generativity as a way of self-actualization in later life. The findings of the grounded theory of informed generative performance in later life show that generativity-based contexts are conducive to self-directed learning in later life. In the context of generativity, learning is associated with participation in intergenerational relationships where older

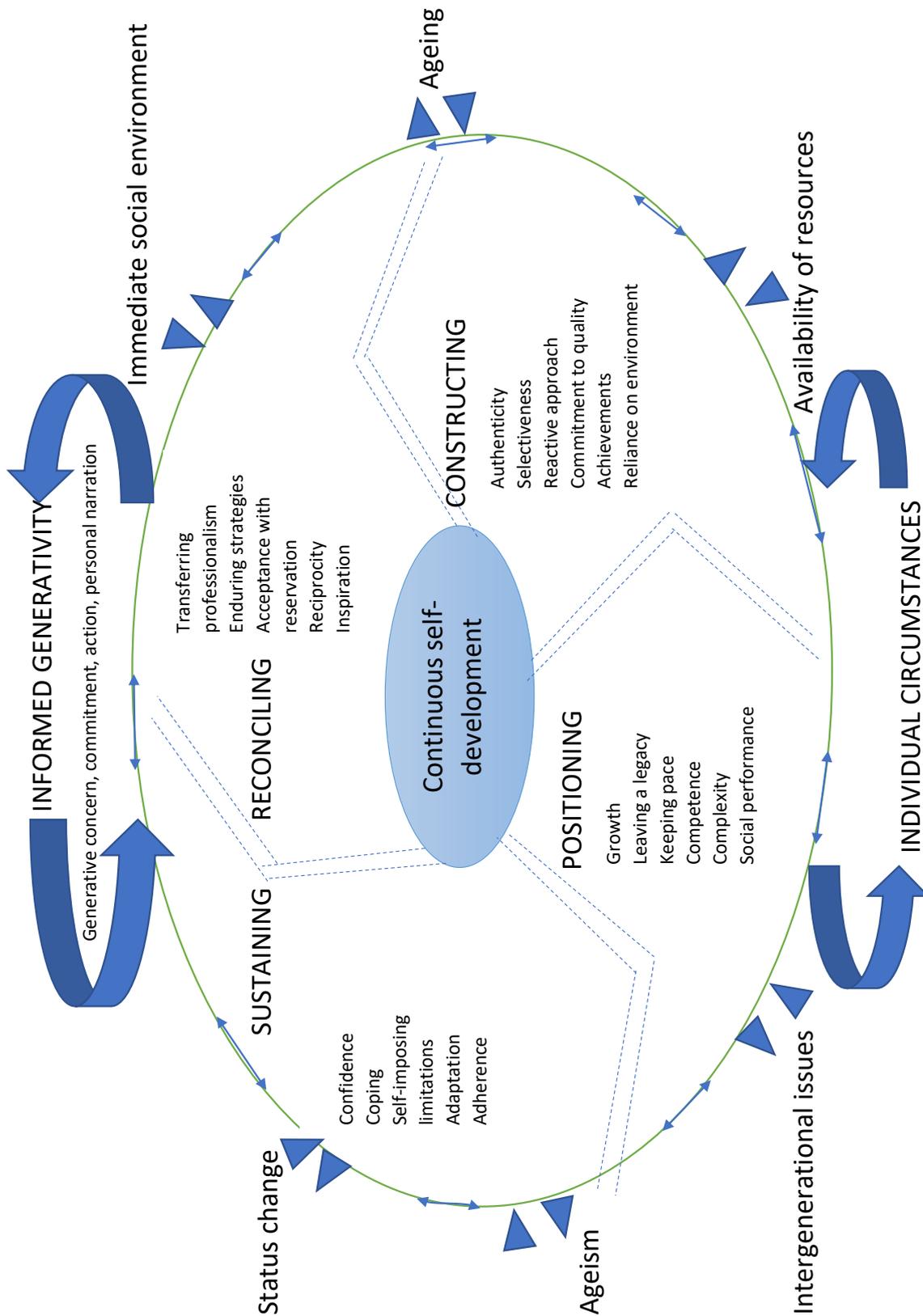
adults make self-directed learning efforts to achieve informed generative participation. The relationship of informed generativity and self-directed learning is expressed in learning being integrated in a dynamic interplay with generativity-based contexts which include generative concern, commitment, action and personal narration. By responding to the challenge of the complexity of generativity, older adults pursue further development of their abilities (cognitive and physical power and skills) for informed generative commitment and action. Creating sustained authentic learning in informed generativity is central to the process of self-directed learning in later life. In their self-directed learning, older adults are engaged in four processes:

- (1) *positioning self-development in generativity*
- (2) *constructing authentic learning opportunities to inform generativity in later life changes-affected circumstances*
- (3) *reconciling past and present - integrating pre-retirement learning experience with post-retirement learning needs*
- (4) *sustaining self-efficacy in learning in aging-restricted circumstances*

Figure 4 (the extended diagram of Grounded theory) represents the theoretical position of self-directed learning process by depicting its movement, composition and the influences of micro and macro environments including the generativity environment and individual circumstances.

Self-directed learning results from and contributes to informed generativity. The perception of individual circumstances affects the learning process and is also impacted by its outcomes. The self-directed learning process in later life manifests itself as continuous and dynamic process of self-development. In their self-directed learning, an older adult moves through the four phases which coexist in the relationships of interdependence. The model shows how the movement within the phases depends on the changes in the micro and macro environments, which determine the nature of self-directed learning and variability of learning patterns. The model shows that the four processes are in a relationship of interdependence. In their self-directed learning, an older adult moves in and out of the four phases depending on the changes in the individual circumstances and the context of generativity. The arrows represent the dynamics of the model, which demonstrates how older adults move through all the four phases.

Figure 4. Grounded theory of Older adults' self-directed learning in informed generativity (extended model)



As the process of self-directed learning continues, it is influenced by micro and macro conditions, which include ageing-related influences, ageist attitudes, intergenerational issues, availability of resources, and immediate social environment. Situating the phenomenon in the context allows building “a systematic, logical and integrated account of the process evolving over time to explain the dynamic and complex ways in which the conditions, actions and consequences affect each other” (Corbin & Strauss, 1998, p. 182). Analysis of the phenomenon in the context of these environments demonstrates how the process of learning is affected by physical, psychosocial, and environmental issues arising from aging, and change in the social status after retirement, power issues between generations and ageist attitudes. With the progression to older age and respective aging changes, older adults revisit their positioning of goals for self-development, adapt the learning strategies and utilization of available resources to sustain the self-directed learning process aimed at informed engagement in generativity.

The critical conditions that determined the nature of participants’ learning included the issues of ageism, intergenerational power issues, availability of resources related to macro environments. Micro environments were associated with personal beliefs and values, previous learning experience, the degree of involvement, the degree of support in the social environment, health condition and other ageing-related individual circumstances and idiosyncratic events which determine the degree of control older people have over their learning behavior. Older adults develop unique self-directed learning patterns in the context of dynamic interplay between objective aging-related circumstances and subjective perception of those circumstances. The dimensional variability of self-directed learning included differences in the level of engagement with learning experience, individual perception of one’s learning abilities, subjective evaluation of the opportunities provided by the immediate social environment, and the degree of proactiveness in utilizing the learning opportunities.

The distinction between macro and micro conditions may be blurred in the interplay of the actual conditions in which the phenomenon of continuous self-development is embedded. For example, the causal conditions of older adults’ engagement in self-directed learning may be associated with an individually perceived need to demonstrate their competence, which has been stimulated by encountering ageist attitudes of old age deficiency at the level of society, intergenerational power issues in the community, or an organization, or intergenerational relationships in one’s extended family. The research showed that the conditions leading to the phenomenon of continuing self-development in aging restricted circumstances are interwoven in complex sets combining both macro and micro conditions. The generativity context provides space for a dynamic interplay of the influences in which both causal and intervening conditions intersect, and change.

Following the axial coding paradigm (Strauss, 1987), the relationships between categories are disclosed identifying the phenomenon, causal conditions, context (time, place, duration), intervening conditions (social, cultural environment, and individual circumstances), strategies (actions and interactions), and consequences. The axial coding process allowed the identification of the central phenomenon of the theory as the core category. The representation of the categories in the form of a matrix (see Table 5. Axial coding matrix) shows the conceptual links between categories and the core category.

Table 5. Axial coding matrix

Causal conditions	Phenomenon	Context	Action strategies	Intervening conditions	Consequences
Leaving a legacy	Continuous self-development in informed generativity	Self-realization in later life	Competence demonstration to challenge devaluation	Complexity	Personal growth
Keeping pace with contemporary developments			Improving social performance in the change of status of a retired person		
Seeking authenticity in learning		Self-reliance in learning	Selective choice of resources and activities	Commitment to quality	Openness to learning opportunities
Reactive approach – responding to immediate needs			Assessment of achievement	Reliance on social environment	
Transferring professionalism		Self-identification as a generative retired person	Invoking enduring strategies	Reciprocation between generations	Meta-learning competence
			Acceptance with reservation	Inspiration	
Coping with inhibitors to learning		Managing aging-related limitations	Adaptation development of adaptive strategies consistent with the effects of ageing	Confidence in one's abilities to be self-directed in learning	Ownership of achievement
			Adherence to accustomed style of learning	Self-imposing limitations	

Theoretical positioning of the phenomenon of self-directed learning in informed generativity in later life comprises the processes, the dimensions of the processes, the contexts in which the processes

occur, and the consequences (see Table 6. Reflective coding matrix). In the following section I will present an integrated account of the grounded theory of older adults' self-directed learning in informed generativity incorporating all the aforementioned elements.

Table 6. Reflective coding matrix of Self-directed learning (SDL) in informed generativity in aging restricted circumstances (following the template designed by Scott (2008))

Reflective Coding Matrix				
Core category	Self-development in informed generativity (ongoing process)			
Processes (action/interaction)	Positioning self-development in generativity	Constructing learning in later life changes-affected circumstances	Reconciling past and present: integrating pre-retirement experience with post-retirement changing needs	Sustaining self-efficacy in learning in aging-restricted circumstances
Properties (characteristics of category)	Commitment to personal self-development	Pursuit of informed generative performance	Acknowledging continuity in learning	Self-directedness
Dimensions (property location on continuum)	Personal growth Preparation for "leaving a legacy" Keeping pace Demonstrating competence Responding to complexity Improving social performance	Authenticity Selecting Reactive approach to learning Commitment to quality Assessment of achievements Reliance on social environment	Transferring professionalism Invoking enduring strategies Acceptance with reservation Reciprocity with succeeding generations Deriving inspiration from preceding generation	Confidence Coping with inhibitors Self-imposing limitations Adaptation Adherence
Contexts	Self-realization in later life	Self-reliance	Self-identification	Managing aging-restricted circumstances
Modes for understanding the consequences (process outcome)	Growth in personal integrity	Openness to learning opportunities	Meta-learning competence	Ownership of achievement

Positioning self-development in generativity

In the context of the personal narration, older adults engage in the process of positioning their self-development in generativity. Being generativity-minded, older people perceive their engagement in self-development as a way to establish for themselves their possibilities for self-realization in the context of change of social status and ageing. Older adults' personal narration of generativity becomes the context of learning in the way it provides opportunities for an older person to reflect on further personal development as a retired individual, who is concerned about 'leaving a legacy' to the following generations by passing on one's expertise or products, and setting a model of later life living. Seeking to establish and maintain one's status as a knowledgeable generative person, an older adult sets the goals of learning in keeping pace with contemporary developments, preparing to "leave a legacy", in demonstrating one's competence to challenge devaluation, and working on improving one's social performance in informed generative concern and action. The degree and scope of consideration of the goals may vary substantially from setting highly specific goals to tentative formulation of one's stance.

Older adults' concern with the meaning of their later life is expressed in the context of personal narration of generativity, which is considered a means to "leave a legacy to the next generation". "Leaving a legacy" is reflected in developing ways of "outliving the self" - passing on one's knowledge and contributing by generative action. When considering their involvement in generative action, older persons engage in learning to formulate their legacy pursuit and develop potential ways of its implementation. Creating a personal narration of generativity, older adults reflect on living their later life as a model for younger generations. The process incorporates formulation of the legacy pursuit, developing the potential ways of "leaving a legacy", and setting a model of living in old age. However, the process of reflective learning of the ways may also include questioning the value of one's expertise in the contemporary world. Individual circumstances may impact on the assessment and the value older adults place on their 'legacy', which stimulates updating one's knowledge and skills.

Informed expression of generative concerns entails accessing relevant knowledge, observation and analysis, formulation of one's beliefs, and communicating their concern to the younger generations. The drive for active engagement stimulates older adults' interest in the current developments related to the life of contemporary generations of young people - „keeping up with the pace of life”.

Guided by a generativity belief that „*I still have some strengths, and energy that I can give*”, an older person fights internalizing the stereotype of aging deficiency. To counter devaluation, older people direct their generative efforts towards negating ageist stereotypes, opposing ageist attitudes and preventing the inferior status of older people by demonstrating their competence in generative activity. Guided by concern about one's informed personal narration of generativity, older adults engage in self-directed learning to maintain their expertise needed for competence demonstration. Conversely, losing self-confidence due to internalized aging stereotypes of devaluation prevents an older person from engaging in further personal development through generativity.

Making commitment to generative action may be associated with rising up to a challenging complexity of performance. Both an older person's perceived need to improve performance and commitment to learning motivate learning some skills and knowledge which is part of a generative activity. The process incorporates taking up the challenge by introducing novelty into the activity, pursuing creativity and variety, and realizing a need for more extensive knowledge for improving

performance. If faced with a high degree of complexity, which requires considerable efforts, an older person seeks balance between self-care and care for others.

Seeking to improve their social performance, older adults focus on developing interpersonal skills and learning to be with other people. Psychological growth is the consequence of older people learning „the art of living” - understanding being in the world and harmonizing relationships. Engagement with generativity is associated with improving (inter)personal skills to perform more effectively in the changing roles and social status as a retired person, or the new roles which have been taken on in terms of informed generative concern and action. The learning process incorporates working with one’s temper and overcoming self-centeredness, developing self-awareness, getting rid of some negative features /developing prosocial personality features, learning to communicate in an unobtrusive way, and giving up the feeling of ownership and controlling in respect of younger generations.

Constructing authentic learning opportunities to inform generativity

By engaging in informed generativity, older adults go through the process of creating opportunities for their own learning in later life changes-affected circumstances. The process involves finding meaningful contexts, selecting worthwhile activities, adopting practicable strategies of performing and assessing performance, and relying on the resources of their social environment. In the context of generativity, older adults realize a need to learn to adapt one’s performance in line with later life changes. The context of an older person dealing with an arising need to learn is self-reliance in utilizing learning strategies and resources. Openness to learning opportunities comes as a perceived mode for understanding the consequences, when older adults develop their awareness of the learning efforts and outcomes.

Generativity provides an authentic context for self-directed later life learning both in terms of meaningfulness and purposefulness of learning activities. When constructing self-directed learning, older adults seek authenticity of learning by searching for meaningful contexts which are tuned in to one’s current circumstances, focusing on usefulness of the activity and making change to one’s life, and developing practicable learning strategies by following one’s beliefs and common sense.

In the process of creating authentic opportunities older adults identify and utilize learning activities and resources by adopting a selective approach. Older adults select learning activities and resources based on their belief in “worthwhile learning”. In the context of generativity, worthwhileness is expressed by learning the things of immediate use, when aiming to become proficient in the areas of generative engagement, and disregarding the knowledge which has little value in their particular circumstances. The factor of perceived time restrictions - „*having limited time and possibilities*” - makes a strong influence on their choice of activities. In their choice of reliable sources, older adults employ a critical selective attitude developed through the years of previous learning.

Authenticity of learning for self-care is closely linked with a personal narration of generativity, which requires from older adults to establish and demonstrate their potential to manage their lives by themselves. Self-care is associated with reactive learning when older adults draw on well-established learning practices to meet their immediate needs. Due to the complexity of needs, especially those which require professional competence, older adults may distrust their ability to learn independently, and therefore rely on specialist advice. In such complex situations, especially when one’s physical health issues are concerned, older adults believe that self-directed learning serves only

a supplementary role. Contrary, when it concerns maintaining mental health, older adults make conscious efforts to learn to manage it independently, without external help.

Older adults' engagement in generative action is associated with quality performance. Following subjectively developed quality standards, older adults adopt a responsible attitude to doing their job in an informed manner without compromising quality. In the process of committing oneself to quality, an older person directs their learning towards improvement of performance to meet new trends, or close the gap of insufficient knowledge. If the person cannot meet the quality standard, they may self-impose limitations on their activity, being discouraged by potential criticism.

In the process of constructing their learning in generativity, older adults undertake reflection on the meaning of the knowledge and wisdom acquired, which represents assessment of their self-directed learning achievements. The process of assessment incorporates recognizing the efforts of action, developing measures for assessment, evaluating the outcomes, and setting the goals for improvement. The range of strategies invoked for the assessment include comparison, observation and adjustment. The consequence of this process is older people becoming aware of their learning efforts, in terms of their success and outcomes. The measures of performance are developed on the basis of a subjectively imposed level of proficiency required in the activity. Older adults may measure their performance by identifying external verification of their success, ability to perform independently, change of status, an improved self, further development of one's abilities, effectiveness of performance and sufficiency of efforts.

In building their learning opportunities older adults place reliance on their social environment by using it as an available resource and building knowledge-sharing networks. Older adults derive resources from participating in community of generational peers, socializing with people in their immediate environment and living in close proximity, pre-retirement relationships. The process incorporates accepting support and encouragement from close people, making use of communication by placing the value on the content, and maintaining personal relationships for emotional development.

Reconciling past and present

In their self-directed learning, older adults engage in the process of integrating their pre-retirement learning experience with their post-retirement changing needs. Self-directed learning is expressed in older adults' attempts to integrate their past beliefs with common contemporary understanding of things guided by the belief of "*moderation in all things*". The process of integration involves transferring the competences gained during one's career to post-retirement generative activities, invoking enduring strategies from the past learning history, developing a strategy of acceptance of new trends with reservation, and engaging in learning through reciprocity with succeeding and preceding generations. Still identifying themselves with pre-retirement careers, older adults are moving towards identifying themselves as generative retired individuals. In this learning context, they are faced with the need to reconcile the discontinuity and continuity in one's expertise. The consequence of this process is further development of meta-learning competence enhancing efficient learning.

Older adults make use of their pre-retirement career competencies by integrating them with the current need for competence when engaging in post-retirement generative activity. The process of transferring professionalism incorporates reconciling the discontinuity and continuity in one's professional expertise, further developing one's professional competence motivated by sharing, and

transferring competence to new productive generativity-related contexts. The transfer of competence may be expressed in a variety of ways to stay connected to their pre-retirement roles including family (advice, discussion, request for help, grandparenting) and productive domains.

When developing the competencies needed for their generativity, older adults build their self-directed learning on past learning experience by invoking long-practiced, enduring common learning strategies as “affordable methods” developed in the past learning history. The process incorporates invoking the meta-skills picked up through professional development, drawing on accustomed sources, and “natural” independent learning strategies, and maintaining a professional attitude to performing a generative activity.

When approaching new trends, older adults experience a clash between the past – the older person’s experiences and worldview, which have been formed in the course of the life time, and the present – encountering the life of new generations, and respective modern developments. Self-directed learning is employed when trying to integrate their past beliefs with common contemporary understanding of things – developing a strategy of acceptance with reservation. The process incorporates: using new techniques of dealing with contemporary issues developed through using a combination of one’s common sense, previous knowledge and considerations of the new approaches; employing their ability to work out and form their own methods of practice; resisting the new trends which do not comply with one’s beliefs and values in approaching tasks. Inability to accept the new trends may stimulate withdrawal and giving up a certain area of activity, where one’s expertise is not valued.

Older adults’ learning for informed intellectual and emotional productivity as an expression of generativity stimulates engaging in learning through reciprocity with the succeeding and preceding generations, which is represented by interaction with and care for individuals in a younger or older generation. Learning from the succeeding generation represents the learning continuum in generational perspective as a lifelong process. Learning through reciprocity with a younger generation encompasses acceptance of change, encouragement for adoption of contemporary ideas, and readiness to learn from a younger generation. Reciprocity with a more senior generation (preceding generation) involves observation of model behavior from an older person, encouragement for learning to care in an enabling mode, and as an impetus for seeking knowledge.

Sustaining self-efficacy in learning

Guided by one’s informed generativity beliefs and concerns, older adults engage in the process of sustaining their self-efficacy in learning in aging-restricted circumstances. Perceived self-efficacy is an older person’s belief in their capability to exercise control over their activities. When faced with ageing-related issues, older adults visualize a trajectory of their future lives incorporating their generative self-care concerns associated with a need to maintain self-reliance and self-sufficiency to be in control of their life. The perceived self-directedness provides greater opportunities to project one’s autonomous learning and self-initiate the process of learning based on self-efficacy beliefs. The process of sustaining self-efficacy in aging-restricted circumstances incorporates maintaining confidence in one’s abilities to be self-directed in learning, coping with aging-related inhibitors, self-imposing limitations, developing adaptive strategies consistent with the perceived effects of ageing, and adhering to an accustomed style of learning built on self-reliance. Ownership of one’s achievement comes as a consequence of sustained self-efficacy process, which demonstrates older adults’ abilities to manage their learning in continuous modes.

Generative commitment to action leads to maintaining confidence in one's abilities based on self-efficacy beliefs. Meta-learning competence and expertise in particular fields acquired during the years of professional development allows older adults to be self-directed in their learning. Self-confidence is further increased in the process of engagement in more complex tasks. However, perceived lack of personal efficacy may result in looking for resources with which to complement a self-educating mode, or limiting one's activity. The process of maintaining confidence incorporates maintaining strong beliefs in one's ability to manage an activity on one's own; building one's confidence on the competences acquired in the course of the lifetime, and expertise in a particular field of activity; competence development towards more complex tasks in the process of doing; finding resources with which to complement lack of competence; acknowledgement of and taking into account one's individuality, and engaging in collaboration with others on equal terms.

The learning process involves coping with aging-related inhibitors to learning. Learning is embedded in perception and recognition of the age-related limitations (mental or physical health, worldview, physical circumstances) to perform the generative activity. The learning nature of the process is represented by an older person learning how to transcend or accept the limitations posed by aging-related changes. In the positive perspective, the efforts to cope with limitations are represented by an older person 'not feeling one's age' when engaging in their generative activities following the motto: "*you are as old as you feel yourself to be*". The process of coping with aging-related inhibitors to learning incorporates considering the (potential) negative impact on activity; perception of combination of ageing and environmental inhibitors; ageing-related socio-cultural limitations as incentive to create opportunities; efforts to prevent ageing-related cognitive decline.

Lack of competence to perform complex tasks makes an older person accept limitations – an older person takes into account their limited abilities preventing performance of the activity at a higher quality standard. Resigned acceptance may be adopted as a strategy of accepting limitations on quality - older adults take up the activity within their competence. The process incorporates self-imposing limitations on the resources and scope of learning; self-imposing limitations due to perceived decrease in needs; disengagement related to lack of will and "spiritual laziness".

The process of adaptation is reflected in older adults developing adaptive strategies consistent with the perceived effects of ageing. Due to aging-related limitations, older adults develop the adaptive efficacy strategy of learning to adapt their performance of generative activities to the perceived age-related effects on their abilities. Aiming to prevent or mitigate potential ageing-related decline, older adults learn how "*to live in your old age*" - to keep up their physical, affective and cognitive abilities. The learning experience involves identifying the needs and developing strategies for physical and mental (cognitive and affective) health-wise learning. In the context of generativity, consistent with perceived ageing processes, older adults develop learning strategies directed towards adaptation to effects of ageing on their performance. The process of adaptation incorporates developing strategies directed towards adaptation to effects of ageing; learning how to be in control of one's health condition; developing the "ease in/of performance" strategy; altering well-established learning strategies to avoid potential negative effects; creating opportunities for themselves by developing compensatory strategies.

The process of sustaining self-efficacy encompasses adherence to an accustomed style of learning built on self-reliance. When engaging in new activities and complex tasks related to generative pursuits, older adults adhere to accustomed methods of learning guided by their self-reliance strategies. Self-reliance strategy builds on their common sense, efficient learning beliefs, and

meta-learning skills. The process of adherence to an accustomed style of learning incorporates relying on meta-learning skills, exercising the practical mode of learning, invoking long-adopted learning strategies, modelling a dynamic learning strategy which encompasses initial assistance from other people followed by independent practicing, and utilizing the opportunities to access readily available resources making use of well-established community relationships. The mode of learning chosen by an older person depends on the level of independence, the baseline of skills, and the preferred mode of learning.

3.2 Analysis of the empirical research findings: the grounding of the categories

In this section of my study I will describe and analyze the main categories (processes) and subcategories (properties, dimensions, contexts, and consequences) which emerged as the most significant aspects of the data analysis. The grounding of the categories will be demonstrated by direct quotes from the interviews, which provides evidence to the interpretation of the meaning of the data and the emergence of the theory.

The process of positioning self-development in generativity: the context of personal narration of generativity

In vivo: “You don’t understand anything – you are too old”

The concept of positioning self-development in generativity refers to the older adult establishing their goals of continued personal growth in a meaningful learning context. Continued pursuit of personal development in later life leads to personal integrity as a consequence of this process. Engagement in generative activity is associated with sufficient cognitive abilities, high intellectual performance and good memory. A specific characteristic of later life development is fusing the cognitive, intellectual, spiritual and emotional aspects of learning. Maintaining the growth of integrity of personality is reflected in experiencing the process of self-development continued after retirement, therefore, the pursuit of personal integrity is given a priority.

The concern about informed personal narration of generativity stimulates an older adult to reveal and develop one’s self. The pursuit of continued personal growth in maturity incorporates self-understanding - learning about one’s self as a retired individual; learning as self-development becoming integral to an older person’s life; drawing on core beliefs, values and interests continued into later life; analysis of one’s needs and goals focused on in engagement in generative action.

The period of post-retirement is generally associated with an older person identifying a new self as a retired individual. An older individual raises essential questions about the meaning of life at this life stage and tries to find an answer to the question: “*What is your life about and what you must do in this life?*” The pursuit of further personal development is associated with an older person seeking to give more meaning to one’s life through realization of one’s potential and finding ways of self-actualization. The realization of one’s self may be associated with developing an understanding of one’s position at the life stage of post-retirement which provides more time to look into some issues which would have been rejected when in active employment. Entering the retirement-marked life stage gives an older adult an opportunity for self- understanding - learning about one’s self which has

been restrained or stifled throughout one's career-marked life-course. Participants recognized that they were moving towards realization of personal "later-life maturity":

When in active employment, I neither thought about those things, nor looked into them, nothing. Now there is some time for such things. I like that. And I feel a need. Although some people say: "You are going gaga". No, I don't think I am. I really don't. But those people – I don't care what they think. I believe I am getting into maturity so late. I discuss this issue with my daughter very often. It's bad, but I don't feel mature yet ...I am still feeling like a child. Being retired, I am starting to understand myself. I believe children feel like I am feeling now ... but no, they cannot be feeling like that as for them it's a burden until they find their place, isn't it? It's very difficult for them. And now I am starting to figure out what I really want [in my life] (mocking herself). Well, I am looking for that with pleasure, and this makes the difference. I keep discovering myself afresh (Nele, 62)

Learning as self-development is considered integral to an older person's life. Driven by an inner need to grow in maturity, older adults consider their need for knowledge acquisition essential "like food or warmth". Participants were convinced that learning was part of their normal life - „one should not be considering the question to learn or not to learn" as "life itself that pushes you forward":

That weight of your age makes you feel sad when you realize that you have lived a long life, but still know so little. You need to learn all your life and progress towards perfection. There is longing for knowledge, ideas, beauty, love, intelligence, elegance. Guided by that longing, you go and find things for yourself (Svaja, 68)

One needs to learn, otherwise, our existence – that of retired people- will become very poor. Eventually, it gives meaning to your life. If you just limit yourself to your own home doing some chores, or knitting, or embroidery, or reading a book, and that's it – this is not enough (Ruta, 73)

Recently I have found a new source for gaining knowledge and my spiritual development – a radio channel, where I can listen to lectures on a variety of topics, book reviews, excerpts, discussions about psychology, and good music. It has replaced television, and become the content of my life in old age. And books, of course. I couldn't do without them. I can still find some interesting solutions to problems of human existence, although at my age, I may be supposed to know all the answers. I believe I have been learning all my life – from books, friends, children, nature, things, and mistakes (Ana, 70)

Continued pursuit of knowledge may be formulated as a need to „revise and brush up the knowledge", „refresh one's mind", and "gain life-wisdom". Participants identified search for knowledge as a life-long process for personal development, which was expressed as enduring interests in learning about certain areas continued into later life:

[after retirement] I read Kant's Critique of Pure Reason two or three times, the Lithuanian translation, which was quite difficult. There are a lot of good ideas and thoughts in it. Kant had a really good understanding of logic. Well, I need to revise the knowledge of logic again. Though, logic has always been with me, and psychology has, but I still need to brush it up. I have always been interested in it, and have been reading a lot. What motivates me? You need to overcome some diffidence in yourself. Reading helped me to overcome that diffidence. Thus, you gain that confidence, and the desire to acquire more knowledge, or as much knowledge as there is available at this particular moment in time and on this particular issue (Petras, 82)

Building the process of learning as self-development after retirement, older adults draw on core beliefs, values and interests kept in their families throughout generations and continued into later life. Continuity of learning as inherent part of personal development was evident in participants discourses:

Learning has always been considered a necessity [in our family]. It's like one answering the question: Why does man eat? Why does man wash himself? That must be the same reason of a habit and a need. Everybody has been reading in my family, and it has always been seen as a need. One would never say: „Why are you reading? Go and do something useful” (Dana, 64)

I wouldn't say that there was another boundary... for me it [retirement] was somehow like continuation. I didn't feel any transition or crossing a line. Understanding the world has always been interesting to me (Petras, 82)

You still feel a need to go and see, and contribute. That still appeals to you. It may be because of your character. My interests haven't changed (Ula, 64)

The concern about informed personal narration of generativity stimulate an older adult to reveal and develop one's self to “live one's true life” in the remaining life years. Older people realize that they need to get to know themselves as retired individuals and identify the things that give fulfilment in later life. This realization stimulates an older person to engage in search for one's self through analysis of one's needs and goals. The participants recognized that in the present period of their lives they were focusing more on spiritual development: increasing self-awareness and developing one's personality through learning emotional culture:

It seems to me that my mission is to be a „social worker”. It seems as if I always have to help somebody, and thus I lose myself. It seems to me that if the people around me are happy everything is right. But am I happy? We were reading Zig Ziglar, where at one point you had to write down your dreams. I was surprised that I didn't have any dreams – I didn't know what to write. I didn't know any dreams at all, as all my dreams were related to other people – about my mother being in good health, or my daughter doing well, things like that. But those didn't do as your dream had to be about yourself – what you desire yourself – and I didn't know what I could dream of. So, it took me about half a day thinking hard until I could write down ten dreams as goals. When I formulated that dream of what I would like – it came as a

revelation to me, and as a relief that I had one and it was not related to the people around me. So, they do exist, but they are hiding so deeply. If you dig them out, you will find them. But I admit that I can live my whole life without “having myself” (Nele, 62)

I give preference to “getting to know yourself”. Now I want to make “a robe for my soul” and get to know myself. Emotional culture and reading books – it’s so interesting to feel how another person could be a hero of the story, learning about astronomy, and science. We live in the most wonderful period of history, the best time it can be in the human history. I have read Hesse’s writing about old age – you are only an observer. You are an observer and use your reason – you see that things are different now from what they used to be (Svaja, 68)

Most participants’ discourses emphasized the older people feeling a need for more active engagement in generative action. Envisioning future engagement in generative activity may include creating plans for benefiting other people - “to be open and needed”. Engagement in self-development through generative activity may be stimulated by an older person experiencing a “boundary situation” due to serious illness or loss. When faced with a life crisis, an older person experiences an inner generative desire to give a new meaning to their lives through realizing their potential:

When an oncological illness hit me for the second time, I made a promise to myself and God to establish a prayer group in my town as soon as I recover after chemotherapy. And I did. Tomorrow we will celebrate the three-years’ birthday of our group (Ina, 73).

I have devised a plan for myself - when I am in full retirement, I will invite some like-minded people to my home for a discussion, for discussing books or films. And it might be possible to invite a lecturer. I would hate living in detachment and being useless (Brone, 64).

Older adults’ concern with the meaning of their later life is expressed in the context of personal narration of generativity, which is considered a means to “leave a legacy to the next generation”. The process of *preparation for “leaving a legacy”* in developing ways of passing on one’s knowledge or products as generative action incorporates formulation of the legacy pursuit; developing the potential ways “leaving a legacy”; living in post-retirement as a model, questioning the value of one’s expertise.

Leaving a legacy as a generative concern and action is associated with an older person directing their efforts towards perceived future life, thus realizing and developing their potential. The personal narration of generativity in participant discourses was associated with formulation of the legacy pursuit and developing the potential ways of its implementation. Believing that they have acquired some valuable knowledge which should be shared and kept for younger generations, older adults may start considering a plan to „pass on legacy”, especially when faced with deteriorating health. Ruta’s concern about collecting and preserving the local history for future generations was associated with designing a plan how her extensive knowledge of the local history and culture could be passed on to the people who may use it for the benefit of the community in the future. For this purpose, she was developing a strategy to make systemized records of her knowledge:

I was reading a book with the title “We lived” by a prominent Lithuanian writer, and this idea occurred to me “and we also lived”. Then I thought that in the context of the family history one could discern something more – the circumstances, the everyday matters, the traditions etc. So, I am improving the things I have recorded [] I think the most reliable thing would be to pass it on to V [the woman presently in charge of the local museum]. But she has no time – she is very busy. I have bought a few notebooks, and now I will try to dedicate one notebook to some ideas about small events. I need to record everything I have learnt in one place, so that it doesn’t get lost. Now I get lost among all those papers myself – they need systemizing (Ruta, 73)

Leaving a legacy to one’s family may be expressed in producing some products of value to the family. Gene intended to leave her own art works to children and grandchildren as legacy. She had also developed a way to contribute to the next generation by passing on her knowledge - writing reviews of the books she had read:

So, I write a summary of the content of the book and my opinion. The children may read some excerpts one day. I am trying to read all the contemporary Lithuanian literature published. I will leave it all to the children. My daughter works as a teacher now. She may have time later, and may be looking for those books (Gene, 77)

I need to look through my ‘archives’. It’s the photographs, certificates, awards for career achievements. I am thinking of putting it all together to be left for the younger family generations. They may throw it all away if they like (Jonas, 64)

Participants expressed their belief in passing on their values to the children and grandchildren. They looked at their present and past lives in terms of the generative narrative, which could be formed to serve as a means to leave a legacy to one’s family. Wishing to be a model for their children, they considered both their working life and living in post-retirement as a model for the children to look up to:

I would like them to be like us – to care and to love when they are needed. We have already lived our lives, so they can only think and remember what we have become and what we have been like throughout our life time. I believe we make a positive model for them, very positive (Elena, 71)

I don’t encourage them directly, because one learns best when they see a model, not from words. You don’t need to prove anything – it just goes naturally (Laima, 64)

However, taking into account the demands of the changing world, and rapid development of the global knowledge base, older persons may start questioning the value and usefulness of their experience gathered through the lifetime, and believing that sharing this experience will not be acceptable to younger people: Although denying the ways to pass on their expertise to the next generation directly, older people may be still concerned with ‘leaving a legacy’ which is embodied in creating their personal narration of generativity:

It's not that I feel like passing on my life experience to somebody – I don't treasure it myself. I know it will not be accepted. Nobody accepts that experience, and that "preaching". Why should we try to convince somebody? I am open in my talk, so if you like, you can learn from me, and accept that experience, but I will not teach you in any way (Nele, 62)

Generative concern stimulates older adults to maintain interest in the life of the contemporary generations of young people, develop ways to access to relevant information to inform their understanding and communicate their beliefs. The contemporary global and national economic and mental environment are considered the issues which one must know and stand on, and develop an informed critical appreciation of. Older adults' "keeping pace" is expressed in increasing one's understanding of contemporary developments as informed expression of generative concern. The process incorporates maintaining one's status as a knowledgeable person; informed formulation of one's generativity beliefs; making efforts to obtain relevant knowledge; informed communication with the following generations; narrowing the scope of generative concern to immediate environment.

The generative concern of older people is represented by maintaining one's interest in the world and country's issues, acquisition of global knowledge and keeping oneself updated on global and local developments, and the life of contemporary generations of young people. Participants recognized that they maintained explicit interest in following contemporary developments including the national political life or policies of one's district authorities, following the current social, economic and political processes and change in their communities, keeping up one's interest in educational and health issues, new developments in society and technology, searching for new information in pursuit of the knowledge of recent global developments:

I am interested in what is going on in the world and keep up with the pace of life – I am trying to take part in all things, to be interested in everything – the polls, politics, and who will be elected – to be interested in everything. I listen to the radio, the press coverage, and those political programs. I have a radio by my bedside, so when I wake up, from six o'clock I learn all the news, weather forecast, and what is happening in the world (Gene, 77)

The justification for the universal topics of interest in older age – technology and world events – is embedded in an older person's desire to maintain one's status as a knowledgeable person. Being primarily focused on their environment and learning new things about the community, participants also identified their interest in learning about new developments in natural science and earth science, and the global events. Participants believed that at an older age one should be interested not only in common things like ethics, healthy living, but also one has to have comprehensive knowledge (education) and have some knowledge in all areas of life, at least elementary so that to avoid getting embarrassed when „you have no idea what a word or event mentioned means“. The interest in global knowledge and willingness to learn more may be stimulated by the older person's inherent drive for knowledge when one realizes its incompleteness and limited nature:

The more I read, and the more I am interested, the clearer is my comprehension that there are a lot of things I don't know, literally a lot (Ruta, 73)

The perceived need to express one's generative concern about the development of younger generations, and also the world and wider society encourages older adults to engage in informed formulation of their generativity beliefs. Older people build their formulation of beliefs of the processes of contemporary generation development on observation and analysis based on their erudition. Learning of the ways to interfere if a need arises may become part of this process:

And that inferiority complex, inferiority ideas are so deeply rooted in the brains of our people and our children, that considerable, sustained efforts are needed to uproot it. I may be not right, but I believe that all our misfortunes come from the so-called inferiority complex, which has such deep roots (Petras, 82)

I also try to make remarks about their misbehavior on the bus. I feel a need to say something. I say it in a mocking way not addressing anybody in particular. Once I saw a boy being bullied by some older boys, and then I lost my patience and reproached them for bullying. But they reacted in a normal way, they did not say anything bad to me (Ina, 73)

Although most participants acknowledged that they had limited access to communication with a younger generation outside their own families, they made efforts to observe the life of the generation of children. Participants from smaller communities, who were genuinely caring about the new generation and trying to understand their needs, kept themselves informed about educational developments through maintaining ties with some staff at the local schools:

I am doing my best, but I don't understand everything, and I don't know everything. I can't get access to this information. Unfortunately, "the roads [to getting knowledge about them] are blocked for me. But I come and take some pictures of their environment [for the community history], and observe what they are doing there. Now they have some really beautiful spaces. I have visited all of them, and there are some really beautiful things (Ruta, 73)

I am interested, really interested in what is going on in the school, the attendance of pupils, and the educational levels (Ula, 64)

Nowadays, children are really ingenious. I ask them about different things more and more. And, you know, they sometimes know more than me. Now children are so receptive to various technologies, everything (Yolanda, 71)

The interest in the contemporary developments, especially at the local level may be continued from the older person's active involvement in political or community activity during their career. Having lived in a small town all her life, Ula had built up a wide social network which was now utilized for „keeping oneself updated on all the things happening locally". She had been actively involved in civic activity before retirement - used to be the chairwoman of a civic organization. Therefore, she was still maintaining social relationships with colleagues from her past career and with local civic activists and kept herself updated on social, economic and political processes at the local and national level. However, the attitudes towards interest in global and local issues may be different and undergo some change during a longer post-retirement period. This change may be stimulated by

an older person trying to avoid mental challenge which may potentially cause distress. An older person may start narrowing the scope of generative concerns and limiting it to one's immediate environment:

My topics include cooking and handicrafts, and family life. So, I read such things without any politics, for relaxation - just right for a retired person ...only easy reads, when you feel distressed, so that you don't need to look deep or concentrate (Gene, 77)

And I watch less of the news, because there is too much negative information, which makes me worry, and affects the blood pressure. When I see or hear something bad – it's a problem for me, so I restricted that for myself (Ruta, 73)

Focusing one's generative concern on one's immediate environment – one's own family - children and relatives, older people realize a need for informed communication with the following generations in one's family on equal terms. Therefore, acquisition of relevant knowledge for being able to take part in discussions, “*finding shared topics for talk*” and “*keeping pace with the modern world*” so that they deserve respect from others instead of being considered „*an old lady/man who does not know anything*” becomes an important stimulus for learning in later life:

I have a “young” aunt, who is of the same age as me. She got married at a very young age, when she had finished only eight grades. When her daughter reached the high school age, she also went to attend evening classes and obtained upper secondary education. Then she joined the UTA, where she has already completed three years. Because she wants to communicate with other people, her children and grandchildren on equal terms. She does not want to feel ignorant about the things they discuss, so that they think: “you don't know anything except your pans in the kitchen or tomatoes in the garden” (Dana, 64)

No, things haven't changed for me. Everything I have been interested in is still there. Well, now I have more time for reading fiction, rather than “sitting on that historical stuff”. But my children and I still discuss historical issues a lot (Vaida, 67)

You must [learn and keep up your interests] so that you can communicate, and you are not detached from the world, so that you are able to take part in discussions, and they don't say: “Granny, you don't understand, you are too old” (Gene, 77)

At the moment, my son is in Thailand, so I hurried to look for knowledge about Thailand, and I have investigated it thoroughly what kind of a country it is. Of course, I have forgotten everything in geography (Ina, 73)

In the context of commitment to generative action, older adults look for ways to *demonstrate competence to counter devaluation*. The process of competence demonstration before ageist stereotypes represents older adults' resistance to ageism. However, older adults may perceive their age as a barrier to continuing active involvement and therefore giving way to the young generation. The personal narration of generativity is supported by an older person identifying oneself with an

image of a retired professional and an enlightened person. The process of competence demonstration incorporates engagement in stimulating activity to prevent mental regression risk; proving one's expertise by using competence in one's social environment; resistance to internalize a derogative stereotype of an older person's abilities; maintaining one's status as an enlightened person; considering possibilities to restore and further develop specific competences; limiting engagement in further personal development due to internalized ageist stereotypes.

Retirement is generally associated with a loss of social status – “*feeling as if you are less respected, less educated, less intelligent*”, and continued employment at retirement age is believed to maintain the status of a productive person, which makes one feel more respected. The perceived loss of the status of “*a useful member of community*” may be followed by reduced interaction with people. Most participants reported feeling retirement as transition from being part of a community to living in seclusion, which caused a need for stimulating activity to prevent mental regression risk associated with inactivity:

I think that retirement makes you feel different. While you are in employment, despite your older age, you feel another person. But when you leave your job, it seems as if you don't have any educational background, nothing. When you retire, you feel not lonely, but lone. And then you start “going gaga”. It's only up to you to create something for yourself (Ula, 64)

The need for finding new opportunities for further personal development may become increasingly urgent when the retirement is accompanied by feeling of wasted opportunities, as one could have continued professional career for some years instead of retiring:

I wasn't really looking forward to retirement. I could have continued working for some five years, as I had enough energy. The first half a year after retirement was the most difficult, when my life was restricted to “home matters”. Then I realized I could give and I can still give more time to the spiritual journey. Thus, I joined a global movement of light-workers, and now I travel, do channeling, and there are new global tasks (Laima, 64)

Participants showed their concern about maintaining their status in their social environment, and identified it as motivation for activity trying to resist the common disparaging attitude towards old people:

It seems as if we have already been written off – and there is “a seal stamped on you”. And you are not worthy attention. I have not only myself in mind, but older people in general. You cannot do anything about that. Such is our destiny. Only if you can show by your deeds that you still know something and you are still able to do something [emphasized] then the attitude of some of those young people may change (Ruta, 73)

By positioning themselves “against the odds”, older adults develop their confidence to resist a derogatory attitude in their social environment, associating older adulthood with senility. The perception of the possibility of being treated as a deficient old person was evident in participants discourses:

If you are old, they think you don't know anything and you are not able to do anything. They may not say "hello" to you (Ruta, 73)

I take a positive attitude to ageing – you are as old as you feel yourself to be. Although I have retired, I don't feel myself a crazy old retired woman yet (Dana, 64)

Involvement in generative activity is considered a way to prove one's expertise and to change the attitude in the context of the power issues between generations. Conversely, negative attitudes perceived through "*the older generation pushed aside*" may discourage older people from considering an active role. An older person may be willing to participate, but waiting to be asked for their contribution thus avoiding making a nuisance of oneself:

With ageing you don't want to interfere with the young, just because traditions and attitudes are changing, everything is changing (Ula, 64)

I go to community events if invited. But nobody has an interest in me, nobody invites. If I were invited, I would come, why not, but. It may be because of my old age, as there is a new generation coming (Petras, 82)

Older people's resistance to internalize a derogative stereotype of an older person's abilities encourages them to maintain their status as an enlightened person. Respectful attitudes to and appreciation of an older person's professional expertise have positive effects on their perceived self-image of a retired professional. Identifying herself with a group of retired professionals who have the potential of sharing their expertise, Ruta made an association with a „lighthouse" as a symbol of a retired professional acting as the role model of an enlightened person whose intelligence, insights and extensive knowledge are recognized and valued by the community:

And we are the main part of that audience [at cultural educational events]. They know that the retired teachers are those 'lighthouses' who are interested in everything. Yes, they are interested, and they are also able to ask some intelligent questions, to share their experience or to yield some insights (Ruta, 73)

Being an authority on the issues of their expertise, which in most cases is related to pre-retirement career, motivates an older person to brush up their knowledge in order to give advice to younger people on the area of interest, forming one's views and opinions. Participants reported situations when their competence could be used in their immediate environment when communicating and sharing with family and friends:

Of course, I share it with my family. My son is interested in novelties, so we discuss, and talk about that. And my sister, a former teacher, lives nearby, so we can engage in discussion. Of course, I communicate what I know to my friends if they need it (Jonas, 64)

Now I can only be an authority on some issues to my children, to my environment, to the children of my relatives. One of my family also works as a teacher now, and she appreciates my advice on working with pupils in the class, and how to organize an event. I was already

retired when she started, and she would ask a lot of questions. I had to look for answers in my pedagogical and psychological notebooks (Ruta, 73)

You formulate your opinion and attitude, and reject or accept some ideas. Yes, my children and I do discuss and argue about polls and things. I haven't separated myself from that, I still have my approaches, and skills, as it used to be my 'bread' (Vaida, 67)

The opportunities of using specific skills to demonstrate one's competence may be considered in the context of the possibilities for further realization of one's potential. Reflection on one's abilities and the potential one had in the past makes an older person consider possibilities to restore and further develop specific competences (e.g. foreign language, or artistic abilities). Believing they could refresh specific skills, participants were considering taking them up again after a break of many decades when it was pushed aside due to intense employment:

I was thinking of taking up painting again. I started it at school, but then it was neglected for so many years and did it only occasionally as much as it was really needed. Of course, I will not become a painter like Chagal or Picasso, but I could paint passably if compared to some contemporary artists (Dana, 64)

The English language – I knew it well, and now I would like to restore everything so that if I was travelling somewhere, I could speak and had the courage to. If I learnt this language four years at university and passed a national exam on graduation, it proves that I knew it. And now I have the dictionaries, and everything I have such a wish. If there was a course organized, I would join it, I would find the time for that (Vaida, 67)

In later life, a desire to challenge the negative attitudes towards old age by keeping pace with the development of the contemporary world and acceptance of change stimulates older people to learn and continue practicing their skills of using technologies:

I was just thinking at one point that I must keep up with the times. When mobile phones started, I bought one. When everybody started with those computers, I couldn't be outdated. So, I did a course, and then tried things on my own, when I had the fundamental knowledge. And I also use Skype (Ina, 73)

Fearing devaluation of social status, suffering the decline in one's sense of worth, diminution in one's active role and abilities, or unwelcome images of self are the negative consequences of internalized ageist stereotypes. Losing self-confidence prevents an older person from engaging in further personal development. It may be caused by psychological or social reasons related to poverty and low self-esteem, or an inferiority complex caused by environment-imposed old-age stereotypes, which make an older person feel „not wanted”:

The greatest disaster in our small towns, and maybe all over the country is that older people have not freed themselves from the clutches of poverty and 'the poor man'. There is a lot of

saying “I don’t dare to go out’, ‘I am too old’, ‘I am uninteresting’, ‘I don’t have anything to say”. These are the self-restrictions of the inner freedom (Svaja, 68)

Self-directed learning is aimed at dealing with the complexity of performing the activity in an informed manner. Guided by commitment to generative action, older adults respond to the challenge of complexity of generative performance. The process incorporates seeking balance between care for oneself and others (i.e., a balance combining a productive activity intended for others with self-care); pursuit of creativity and variety; taking up the challenge of introducing novelty into the activity; realizing a need for more extensive knowledge for improving performance.

In post-retirement an older person starts looking for a generative activity to compensate for loss of previous career-related opportunities. For the research participants, these novel opportunities were associated with engagement in a variety of generative activities including civic participation (a global society of enlightenment); interest groups (a singing ensemble; healthy lifestyle club); voluntary activity (in the museum); engagement in religious activity (church choir; a prayer group); preparing events for family and friends; collaboration with other professionals in the area of one’s expertise. The choice of the activity is based on identifying a meaning to the activity in the context of the remaining life span. The meaningfulness of post-retirement activity is associated with realizing it as a period of life when one can focus on personal development, improvement of family relationships and search for meaning of life through engaging in generativity. Seeking for meaningful life in retirement, an older adult tries to find a perfect balance (harmony) for one’s life combining a productive activity intended for others with self-care:

It seems to me that I started living anew. And now I was born for the life it has to be – harmonious and not too much work. I don’t want to live without work. I like having my small business, and I know those three months will be hard, but that’s okay, because then you will have eight months for other things. First of all, I want to find balance, harmony, and I don’t want to give all of me to work. I am not doing my business only for money – I like it when people enjoy staying at my lodging place, but I don’t want to expand my business activity, because it will take more of my personal life. Now I am looking after my elderly mother and can give more of my time to my daughter (Nele, 62)

During my career, there was a need to engage in professional development. Now I have more time for self-development, improvement of family relationships and search for meaning of life (Ana, 70)

Now there is more time for making things better and thinking (Jonas, 64)

When I „closed the door”, I said to myself after a while: „I will never go back to work in the school”. Why? Why do I need to exert myself so much? I think I am living my “golden age” now (Vaida, 67)

Engagement in a new activity requires older adults to employ creativity and introduce new things. In their pursuit of creativity and variety, older people demonstrate their openness to new experiences, and inclination for innovations. Feeling an urge for novel activity, older adults may be

guided by their unconventional attitude towards work - not doing things according to established procedures, but employing their logic and creativity. Taking up new more complex self-appointed tasks is considered to test one's abilities. Most participants associated later life learning with engagement in generative activity and believed that generative participation provided a favorable context for learning:

The very activity in which you participate makes you learn. I keep telling everybody that they should participate somewhere. When they tell me "How you can be so active after all your illnesses?" I respond that you shouldn't think about your illness, but think about your activity, like I am going to an interview today, tomorrow I am practicing with the prayer group, and I need to prepare for these activities. So, just keep doing things (Ina, 73)

I feel myself something of an adventurer. But that's not bad. Taking risks is often rewarded (Nele, 62)

I can't do things the way it says – following guidelines. I can't live or work according to well-structured regulations. I believe the result is important, but not telling a person "you must do it the way I do" (Dana, 64)

I keep looking for new ideas, find and try a new recipe for a cake, or make pickles to a new recipe, so I keep trying new things all the time (Gene, 77)

I counted all the plants one day – there 68 kinds of flowers planted. When I started counting, I could not believe that I had so many. Initially, I wanted to create a garden that would represent a traditional Lithuanian flower garden (Ruta, 73)

The inclination for innovation may be reflected in a variety of activities ranging through trying new things in their everyday life to setting up a voluntary community activity to temporary employment or a private enterprise. For example, Ruta engaged in self-directed learning for museum work without gaining any prior formal training or qualification for this activity. Later she took up learning photography as a new skill because of a realized need to make some new visual material for the local museum. In post-retirement, Nele started running her pre-retirement lodging business at a higher level – going internationally. Her engagement with innovation was motivated not only by a desire to make her enterprise more successful, but also seeking emotional satisfaction in her activity, and therefore making changes to it if not satisfied. Jonas, when retired from his career in education management, turned to farming and was thinking of setting up a poultry farm, where he challenged himself with his own farming machines and learning repair work. Ina faced the complexity in maintenance of a family legacy – a cottage having the status of a local landmark of ethnic architecture. Ula engaged in learning about some issues of pet-keeping as she felt obliged to help community people who turned to her for some practical advice about their pets. Her late husband was a vet, so people still asked her advice. The areas of learning are related to an older person's productive activity and life tasks, when they feel a need to introduce new things into the activity to achieve a "higher stage" in it:

People sometimes come to see our cottage [cottage having the status of a local landmark of ethnic architecture], as it is in all books [about the local landmarks], so I need to take proper care of it (Ina, 73)

I am interested in gardening and I read about flowers, plants, and I am looking for all new things for the gardening (Dana, 64)

I love experimenting and trying new things with plants. I buy some interesting seeds or plants, get some advice and try growing the way it goes (Tania, 70)

Self-directed learning may be motivated by becoming involved in voluntary activity for which the older person had no or little training. An older person may be faced with insufficiency of knowledge and realize the need for more extensive knowledge for informed performance:

I used an opportunity and completed a computer literacy course. I thought that I could find a freelance on-line translation job (Ana, 70)

I don't read about it [lodging] yet, but I will when I aim to reach a higher stage, when it becomes not interesting (Nele, 62)

I also like this area, so I keep looking into it, especially when people call and ask if I know something how to treat a pet (Ula, 64)

Currently, I focus on religious knowledge, as I got involved in this area. I read books which help you understand something better or learn about something (Ina, 73)

When others are singing, it is very easy to sing alongside them, as I am just following and imitating. But I have never sung those difficult songs solo. So, learning the lyrics by heart was a real challenge to me (Elena, 71)

When dealing with the complexity brought about by modern changes, older adults try to accept the change and learn how to deal with. Thus, they rise to the challenge by developing new learning techniques encompassing both a combination of previous knowledge and considerations of the new approaches:

I may be accepting it as new approach to bringing up and educating children – generation Z, or “a few Z”. I am starting to accept. I am learning. I can't apply my own methods – the children wouldn't understand me. So, I follow my own understanding and look for “a golden mean” (Elena, 71)

Guided by informed generative concern, older adults make efforts to improve social performance in the status of a retired person. Older adults engage in learning to perform more effectively in the changing roles or the new roles which have been taken on in the context of generativity. Learning how to communicate more effectively with family and other people (health professionals, etc.) is

associated with harmonizing relationships by improving (inter)personal skills and character development. The process incorporates: working with one's temper and overcoming self-centeredness; developing self-awareness; getting rid of some negative features /developing prosocial personality features; learning to communicate in an unobtrusive way; giving up the feeling of ownership and controlling.

Perceiving the change of status as a retired person and its impact on their social life, generativity-minded older people place considerable importance on the development of relationships, especially with people from younger generations. The process of improving interpersonal performance entails learning to be with other people by recognizing a need for harmonizing relationships and develop one's character through exercising self-control. Participants believed that an older person has to work with their temper and overcome self-centeredness in order not to cause negative effects on other people in their environment:

I am patient, but sometimes you “let go of the reins”, and allow yourself to be impatient, to be significant. Sometimes you may even consider yourself too significant, and you allow yourself to get annoyed and annoy another person. Now I apply such a strategy - not to make other people worried or annoyed, especially in my own home, and to do everything in a peaceful mode - not to get annoyed if you don't like something, and not to annoy another person, if he or she doesn't like what I you are doing. In general, to maintain your good mental health for as long as possible. While you are young, you are less patient, and now you become a lot more patient (Elena, 71)

Character development in participants' reports was linked with making conscious efforts to maintain good mental health. Self-awareness and acquisition of conscious knowledge of oneself as an aging individual is achieved through learning to observe oneself and control one's emotions:

It seems that we know a lot, and are able to hold various conversations. But what's the point, if you don't know yourself. That self-awareness is in everyday learning. So, what's the use of your extensive knowledge and the number of years, when your maturity is measured by how well you manage your emotions (Svaja, 68)

A realized need to be with other people motivates older people to learn tolerance. Older adults may be learning to be tolerant towards things they used to disapprove of, accepting change and difference. Being very critical of their lack of tolerance, older people see it as a space for spiritual development:

I didn't use to be very tolerant of other people's drawbacks. Now it's improving a little. Because you may “become “lone as a finger”, but I need communion very much. The older I get, the more my tolerance increases (Ruta, 73)

If somebody feels pain, you also want to feel that. There is a saying in literature “Never ask for whom the bells toll – they toll for you”. The implicitness is that you cannot distance yourself from other people suffering. That's the way of personal development (Svaja, 68)

Developing one's character in order to harmonize relationships with other people may entail trying to develop a nice personality in one's old age, and get rid of some negative features - to avoid being whimsical, captious or irritable, and learning not to make demands when being with people of younger generations:

You should not be demanding just out of respect for the other generation. Or respect for yourself. If I am angry and unkind, nobody will love me or care for me – why do you want that? You must be nice so that your children and grandchildren want to come and see you. You must be “honey”, the center of the soul. You need to get to know yourself and overcome your egoism. You need to prepare yourself for living in your old age – develop your patience and understanding of your children, who cannot give you all their time (Svaja, 68)

Harmonizing relationships with the younger generations is expressed by doing one's best to understand their needs and beliefs. Participants reported of their efforts to create opportunities for communication with younger generations and believed that inactivity leads to restricting an older person's social context to communication only with peers. Participants believed in the potential of the older generation to play a more significant role through learning to communicate with the younger generation. However, participants admitted that learning how to give advice to one's children in an unobtrusive way was challenging. When older people aim to impart their values to the younger generation, it is essential to learn to be considerate and tactful in order to be accepted:

The role of the older person would be essential and significant if the younger generation were prepared to accept the older person. They follow their own mind, and go things in their way, and they won't listen. I try to communicate with them gently, so that they don't reject me, don't oppose my opinion, for example. In a gentle and a very tactful way (Elena, 71)

I try to give my advice - tried very carefully once. I think even if he bristles a little at my words, I hope that later he reflects on what I said (Ina, 73)

Learning to develop relationships with one's children and grandchildren also entails learning to give up the feeling of ownership and controlling their lives. Participants believed that one should trust the young generation realizing their needs better than somebody older:

I have learnt to put up with my daughter's situation. That is her life, not mine, and she makes the choice. I used to feel like a hen observing a duckling in a pond and being scared (Nele, 62)

The process of constructing authentic learning opportunities to inform generativity in later life changes-affected circumstances: the context of commitment to generative action

In vivo: „Although I don't work, I do not consider myself an unreasonable pensioner”.

Pursuit of personal development stimulates older persons to construct new opportunities for personal growth. The process of deriving learning opportunities is focused on meeting the needs of informed generativity. The process of constructing learning opportunities incorporates adoption of a

selective approach to learning activities and practicable strategies, and purposeful integration of accessible social resources. In the process of search for meaningful contexts tuned in to their current circumstances, older adults are orientated towards usefulness of the activity and its potential to making change to one's life. Taking advantage of learning opportunities, older adults develop and invoke practicable learning strategies by following one's common sense and moderation.

Search for authenticity is a key characteristic of an older person's generative pursuit. Creating authentic learning opportunities is associated with meaningfulness of the learning context, purposefulness of the activity, and practicability of strategies. The criteria of meaningfulness and purposefulness of activity may become essential for an older adult's engagement in a new activity. The perception of authenticity is closely linked with the meaning and impact the activity has on the older person's life. In the period following the retirement, older adults may seek for a new meaningful activity as a substitute to an activity which had to be discontinued and is not accessible due to retirement or aging related circumstances. Tania recalled some painful experience of her late husband who badly suffered from the loss of his teaching career. In that unsettling situation, he searched for a productive activity to compensate for the loss and escape the feeling of "becoming useless". Eventually he engaged in self-learning of the craft of weaving baskets:

It [retirement] was really painful and distressing for him. I could see that every day when leaving home for work. I thought he would go mad – so difficult was retirement to him. Then he found the forest, the garden, fishing, and learnt to weave baskets. He made so many beautiful baskets and gave to friends and ex-colleagues. He would walk along the river, and pick the material, and then he would make baskets according to drawings – bigger and smaller, for carrying potatoes and for picking mushrooms. I believe he needed that - it was his search for self-realization (Tania, 70)

Older adults engage in learning activities which they perceive as providing authentic opportunities in the way they are "better tuned in" to their current circumstances. Those activities allow an older person to fulfill the need for the universal world knowledge and "live the life one cannot have":

I am doing the things I couldn't do through my whole life. Reading. I have always had a need for reading books, but I couldn't allow that myself. When reading, I feel living in different countries. I have just finished a book about India – I feel as if I have lived there. Instead of travelling – I know that I cannot afford travelling that far – I get my travelling from books. Every book for me is like a country – book is like a life, and by reading you are able to live many lives. Eventually, you see yourself in the book (Nele, 62)

Participants emphasized engaging only in those activities which they found of use and making change to their lives. Authenticity in generativity may be associated with finding fulfillment and satisfaction as well as appreciation by other people:

All these things give me pleasure. Moreover, that work is also paid a little, and that obviously also gives pleasure. It gives you self-satisfaction and a feeling of self-realization, if speaking

in academic terms. I feel really needed and very important because they sometimes can't do without me (Elena, 71)

I receive not only money, but also positiveness – there is a very good aura in the home. People are happy and cheerful, keep thanking you all the time, and keep coming back every year. It's absolutely easy, I am free, the house is full, the money is coming in, I am always surrounded by people. There is self-realization, and that feeling of significance - you are important and useful. I never get tired throughout the summer, absolutely (Nele, 62)

However, finding the right activity to suit one's authentic needs, which would give satisfaction and facilitate further personal development may be difficult, and an older person may spend years in pursuit of self-realization:

Later [after the spouse's death] I tried to come back to the activities which were interrupted [due spouse's illness] and tried to take up singing in the choir, home tutoring or some voluntary activity again, but after a year I felt it was not authentic (Ana, 70)

Authenticity to the learning situation in generative pursuits is associated with a practicable learning strategy. When learning to deal with a psychologically challenging situation, an older person may develop a “natural way of learning” through doing what was necessary. Learning through doing often based on working out the way of performance by trial and discovery was reported by respondents as a common strategy when the need arose for a specific competence. Effectiveness of performance is a decisive factor when reflecting on the results:

I learnt online registration with doctors on my own – nobody showed me. You just keep trying and find a way. And that's so good – I wouldn't be able to make appointments with my doctors, if not for the internet (Ina, 73)

That was a new thing. I tried, the first time I tried, and we looked at the type of songs that would suit us better (Elena, 71)

I learnt through experience, just the way things were going for me. I wouldn't say that was easy for me, or that was the way I chose. I didn't choose – it was just the way that learning occurred (Tania, 70)

Taking up the challenge of a new activity or type of task may require doing new things one never did before and test them in practice. The challenge may stimulate development of a practicable strategy of learning on one's own. Development of a strategy how to implement a new idea may involve learning through observation of the environment and arising needs, and following one's common sense and values:

If the melody is more intricate, you need to practice at home a little. When you sing along other women, it's ok, but you feel that you must know the words of lyrics yourself. So, I do it this way: I write those words down and check if I am able to write the words from my memory.

Then I sing. Writing helps me to see whether I can remember the lyrics or not. I learn this way (Elena, 71)

I gathered the women for the prayer group myself. I was thinking who I should invite. Then I remembered there were some psalm singers in our town, whom I saw sing at religious celebrations. I thought I would choose from those women, and so I did (Ina, 73)

The process of creating authentic opportunities incorporates identifying and utilizing learning activities and resources by adopting a selective approach. Selectiveness is expressed in choosing learning activities and resources based on their worthwhileness. The process incorporates having a strong belief in „worthwhile learning”; aiming to become more proficient in a specific area; disregarding knowledge having little value in their particular circumstances; focusing on the things consistent with limited time; adherence to critical thinking in the choice of sources; experiencing influence of close people on their selection of activity; employing a critical selective attitude developed during career

Making use of certain learning opportunities. Older adults are guided by a strong belief in „worthwhile learning” – learning only the things which will be of some immediate use. Guided by a belief that any additional information may be learnt when a need arises, older people may limit their learning about new areas – may not be looking deeper into some issues and may not have developed new areas of interest in post-retirement:

I learn only those things that I need - I take it up and learn. I mean things that I can use. I will not rack my brains with the unnecessary (Ina, 73)

If I don't understand a certain area, I don't try to look into it, as it may be – 'not my cup of tea'. There haven't been any new areas of interest since my retirement. I am happy with the things I have. I take interest in things, read and learn something as much as I need (Ula, 64)

The selective approach is strongly motivated by an older person aiming to become more proficient in a specific area. An urgent necessity for self-directed learning may be caused by a perceived need to inform their performance of generative activity in a new area. For example, taking up a new post-retirement activity may stimulate an older person for acquisition of specific competences for mastery of the job. Dana reported engaging in extensive reading to acquire specific knowledge needed in her new activity at the local council:

That job was very interesting, because I learnt about those areas of the district activity that I was never interested before. Communication with the governmental representative, preparation of documents, consulting those people required self-education and a higher degree of interest in those things (Dana, 64)

Having little value in their particular circumstances may be the main factor determining the choice of learning activities. An older person may have disregard for learning about technologies or some specific issues for which they see no immediate practical use. Guided by determination to gain

knowledge and learn only those things which are necessary, older people may be disinclined to look for knowledge which “may not make any difference to their life”:

If I really need that knowledge, I will go to the end to acquire it. But if I feel that I don't need it very much, and nothing is going to change, I will probably not even start looking for it. I would like to learn more about psychology and relationships between people, but not technologies – I don't need that any more (Tania, 70)

There is unwillingness and you start thinking: Why do I need that? There isn't much I will learn from it (Ruta, 73)

Recently I have attended a presentation of a book in the library. Before going there, I was thinking if it would be worthwhile attending, if it would be interesting. I choose only those events that I feel are going to be interesting for me (Ina, 73)

Being selective about what things and how to learn, older adults disregard “*the unnecessary*” and focus on the things consistent with “*the value and the weight of time*”. Placing a great emphasis on the “time at your disposal”, older adults are focused on making good use of it. Their choice of activity is guided by a belief that “*every minute of your time should be cherished as there is so little time left for one to live*”. Considering the value of time and treasuring their present day, older adults try to form a vision of the future projected to last for a certain number of years, also placing a great value on coming to this realization:

I have even worked out how much time is there for me in the future – I have 35 years of full life to live, if I have in mind my elderly mother. 35 years and I enjoy every day. If I am in a bad mood, or some thoughts haunt me, I always think: “that's one day of my life – how can I be angry, or tired, or something like that – that will be one day lost out of those 35 years. I started to cherish it. That had never occurred to me before retirement. I believe I just had no time to think about it. You used to keep running all the time, and the end of life seemed very distant. I got this [understanding] when I fully retired (Nele, 62)

That makes you treasure every minute lived. I believe in the ‘fullness of the minute’. When getting older, you celebrate each day lived. You don't want to live that day anyhow. And in your relationships, you must “think well, speak well, and do well”. When we were younger, we didn't understand the value, but now we realize both the value and the weight (Svaja, 68)

Highly generative older people identify lack of time to complete all the activities that one has taken on. It may be seen as a paradox that in retirement one is busier than before. Participants admitted having a very intense active generative lifestyle, which does not match their pre-retirement expectations of a leisurely lifestyle in post-retirement. Being aware of their life being busier than that of others, generative older people feel „time fly”. Perceived lack of time due to „*having limited time and possibilities*” may prevent an older person from considering engagement in new types of activity, or postpone some activities as demanding „*too much time and efforts*” until a need arises:

Now I have a lot of activity, and I really feel short of time to do everything. Before retirement I thought that I would have plenty of time and it would go slowly contrary to working career time. It seems I was wrong, as time flies even faster, at least for me, and you can't catch up (Ina, 73)

My time really 'thaws', and you can't carry out everything that you plan (Laima, 64)

I don't know what 'lazing' is – I have very little free time (Petras, 82)

I wouldn't like to take up something new, as there isn't much time (Elena, 71)

I started doing crosswords, but I don't know... I feel that I lack a lot of knowledge, and I need to look up for it, but I have limited possibilities and time, so ...Although I know you can protect yourself against Alzheimer's by crosswords, but maybe someday, I will start doing it if I'm still alive (Ruta, 73)

An older person may not be adopting a practical approach and maintain an interest in more universal knowledge. Being open to new information in a variety of areas of their interest, these older adults develop a strategy of identifying relevant information when it is needed for a particular purpose:

You may have been interested in something all your life. For example, I can't say what I am interested in at a particular moment – is that because I need that at that particular moment, or because I found some interesting information. It is not the case with me that I would reject some interesting information because I don't need it now, and would think that if I need it after a year, I will look at it then. No, just if you see something, or learn something interesting – you get interested in that. You can't memorize everything – it's important to know where you can find information at a certain moment (Dana, 64)

Contrary to a common stereotype of older people's gullibility, participants demonstrated the independence of thinking and adherence to critical thinking in their choice of sources. They discerned the quality information received through various media using a „*filter of critical thinking*”, which was based on the older person's understanding and insights into contemporary issues. Participants kept themselves updated on global and local developments by watching news and political discussions on TV, reading articles on political issues and analyzing or listening to insights from professional journalists or analysts. Adopting a selective approach towards sources of information available for learning, they refused those which they considered unacceptable and gave priority to expert knowledge:

I only dislike those political discussions of the “market level” when people, who have no relevant educational background start discussing hearsay. Then I turn it off and go away, as I have no interest in that (Dana, 64)

I don't watch films anymore – they are disgusting to me. I only watch news, or a documentary. But I read some newspapers, and publications (Petras, 82)

I have given up some TV programmes, first, because of my health, and because there are too many shows, which annoy me, and are not interesting to me anymore. I watch only the Culture channel and select the programmes which are still worthwhile (Ruta, 73)

An older person may have developed a critical approach to the trustworthiness and relativity of some knowledge through years of experience, and may apply some logical tools to “filter” and assess the information. Thus, they may apply their criticism of popular information by questioning it with regard to its reasonableness:

A healthy lifestyle – so that to torture yourself by giving up meat or salt – as you can hear from different literature, and programs, etc. No, I eat what I like, and don’t want to suffer. I listen to all those new ideas about nutrition, but I think to myself: ‘you may be telling the truth, but I will wait and see – you may be saying a different thing tomorrow. So, I choose the mean (Tania, 70)

I accept only those things that I trust. For example, I don’t believe some popular lecturers (Nele, 62)

I don’t want to learn much about health, as sometimes one may become a hypochondriac. So, it’s better to know less, than get into such uneasiness. We should rely on God for our life (Gene, 77)

Older adults may not be worried about not knowing or being able to do some things with technologies, and may not pay attention to other people’s recommendations what things to learn, if they have no practical need for use of certain new skills. However, in some circumstances, an older person may feel a strong influence of close people on their decisions to learn. Tania gave up using IT in retirement due to discouragement from the spouse. Although initially regretting abandoning IT, later she accepted living without technologies and eventually acknowledged having no interest in current developments in technology, in social networks and seeing no point in using virtual social networks:

Before retirement, I liked the Internet, and the computer, and similar things. When I retired, I asked my husband if we could have it at home. But he said: “No, why do you need that. It’s bad for eyesight, and my eyes are not that good”. Well, I don’t use it now and don’t want to. I could do everything then, because I had to. I wouldn’t have been able to do my job without it, because all the documentation was dealt with by using the computer. But when I retired, it all was over. I felt a little sorry about it at the beginning, but now I wouldn’t like it. I know there is Facebook or Skype, but they are of no interest to me. I can’t even imagine how I could use them, because I don’t see myself interested in those things. I think that I really don’t need them (Tania, 70)

A critical selective attitude may have been developed through the years of previous learning experience and based on one’s expertise in certain areas. Participants believed that a selective and practical approach to learning was influenced by sharing the knowledge with other people during

their professional career. Reflecting on the learning strategies developed through their career, participants considered the well-developed practice and feasibility of knowledge in the context of their activity:

You had to learn every day willy-nilly, because there were reforms coming one after another. You had to look into each issue, and tell the other people in the way it would be useful to them – instead of burdening them with extra work. So that there was some meaning in that. You had to be really selective in what to study (Tania, 70)

I used to have a circle of friends, with whom I communicated, and we consulted each other, and discussed how things had to be done: How are you doing that? Which is a better way? (Jonas, 64)

Attending to self-care concerns is related to older adults developing a reactive approach to learning - reacting to their self-care needs by developing a strategy of independent learning. The process incorporates establishing and demonstrating the potential to manage their lives by themselves; distrust their ability to learn about physical health issues independently and therefore rely solely on specialists; making conscious efforts to learn to maintain one's mental health independently; taking advantage of the events of educational value; having enough knowledge and skills for carrying out their immediate life tasks.

Later life learning as responding to immediate self-care needs is associated with older adults dealing with challenging life tasks. Self-care takes up an important part in an older adult generativity as an expression of responsibility for oneself, and provides authentic opportunities for older adults self-directed learning. Authenticity of learning for self-care is closely linked with a personal narration of generativity, which requires from older adults to establish and demonstrate their potential to manage their lives by themselves. Participants reported extensive effort put into learning to sustain their health and provide for their needs independently in aging-affected circumstances. Having a practical attitude towards obtaining new self-care skills is reflected in responding to an arising need by developing a strategy of independent learning:

Your body naturally tells you that you need to do something. I have found some literature, now I have collected some additional material. When I find something important, I write it down. Now I started feeling a bit out of breath when climbing the stairs, so I think to myself: What should I start doing to get rid of this problem? I have found some advice and bought some foods. If I feel something is not the way it should be, I feel that I need to do something about it. I overcame my illnesses looking to the future, when I knew the treatment would be over and I would recover. I feel good and enjoy life (Ina, 73)

Deteriorating health is generally associated with ageing effects and is considered a threatening factor to one's abilities. Participants articulated their concern about future deterioration of health condition in their very old age and demonstrated a variety of approaches to their perceived need for learning to monitor their physical health condition. An older person may distrust their ability to learn about health issues independently and therefore rely solely on specialists. An older person's disregard for reading about health conditions and illnesses may contrast with their active learning from other

sources, especially professionals. Older adults engage in self-treatment only after specialist instruction, and if not sure of the correctness of their practice, they initiate consultancy with a specialist:

It's frightening to think about your health, and in the future, it will be even more frightening. They encouraged me to take a better care of myself, and now I know where my problem is, and what I need to do – I must do. I rely on specialists – I really doubt that I could learn it by myself (Tania, 70)

I am doing the therapeutic exercises that I learnt from a physiotherapist at the rehabilitation clinic (Gene, 77)

I have some problems with my spine, and now I am doing all those exercises I was taught in hospital. I went for a consultancy once again, as I was not sure if I was doing it right, it didn't go the way I wanted. It's better now (Ruta, 73)

An older person's learning related to self-care concerns is reflected in making conscious efforts to maintain good mental health. Participants reported their engagement in active search for ways to deal with emotional crisis in “borderline” situations - when suffering from a bereavement after long periods of nursing a spouse or an elderly parent. The immediate situation following the loss may come as a contrast from intense generative involvement to “feeling deprived of the purpose in life”. Then older adults may see their present status as “meaningless existence” when comparing it to that of previous engagement in care for a close person. Trying to find a solution to suffering from emotional distress, older people are faced with a need to develop a strategy of finding a meaning to life - trying to find an activity which would allow them to “escape depressive thoughts” and “restore inner balance”:

So that to restore the disturbed inner harmony and overcome the feeling of anxiety, I even took part in two seminars in another city. They were about life crisis, inner development, old age and death transformation, and living full life. They really helped me to get over my emotional distress and realize my new status in the family and society (Ana, 70)

My present-day situation is rather difficult – I feel as if I was living “between the earth and the sky”. I can't orientate myself yet. There is such confusion and exhaustion that I don't have “a point of support”. Being alone, I am trying to find out how to continue living, and find the starting point. I see no purpose in life now – when I was caring for my husband, I knew I was needed. Now nobody needs me (Tania, 70)

Acknowledging the solitary nature of one's living in old age, an older person feels an arising need to get psychological help. However, contrary to attending to physical health needs, when identifying oneself as having some emotional health-wise problems, an older person may not consider specialist assistance, but try and find ways to cope with “loneliness and low spirits” independently, without external help:

I think I have been living in a light depression for some time. I don't know how to cope with it, but I am not going to see any doctors – I have been thinking a lot about it myself (Vaida, 67)

I read about psychological issues now and then – when I feel depressed, when sad thoughts come. I am a lone person type, so I keep looking for answers and help how to overcome stress and those sad thoughts that haunt me (Ruta, 73)

Now reading is essential to me – I need the very process of reading, as it gives me pleasure, not the knowledge (Tania, 70)

How to go on with your life is your primary concern, that you keep thinking about. It's good when there are the two of you... but when you remain alone, that loneliness weighs with you... and you start thinking how to cope with it. But who is in a position to help you? [] people may need some psychological assistance ... I don't know really. Your children live their own lives... they have their problems and concerns... and you remain alone (Yolanda, 71)

When considering the ways to help oneself health-wise, an older person may not choose some popular methods of learning or somebody's advice, but believe in learning through experience and developing their own methods:

My neighbor brought me a magazine about spiritual development. Well, I have read some of it, but I don't trust that psychology very much – I doubt it can help me. You have to cope with it yourself by working with your own problems. Nobody can help me from outside. I read and forget what I have read, that advice. They say that you can learn to treat yourself by rubbing your hands. I tried once, then again, but didn't seem to feel the effects, and you get lazy to do that again. So, I only partially listen to that advice – I follow my own logic and my mind. For example, my neighbor and I are very different. She is into arts, and she can do yoga, whereas I don't need all that. I do some exercise if I feel like that. We are different personalities, and she has much more optimism (Vaida, 67)

In the course of learning for self-care, an older person may reconsider and change the strategy of learning if they find it ineffective. An older person may start learning about their health condition independently by searching for literature, but later they may correct their plan of learning if that search causes some uncertainty:

Initially I started looking for literature, but then I got some feeling of uneasiness about studying it, and I gave it up. I went to see a well-known nutrition professor in the capital city for advice on the way of living and nutrition, and I got everything from him. I fully relied on specialists. You know, reading some literature may be really frightening, so I decided to myself not to read. Now I only read if it says something about nutrition. But now I have learnt through experience in all those nine years (Ina, 73)

Following their commitment to quality performance, older adults make efforts to perform activity in an informed mode. Quality performance is motivated by older people seeking recognition of their expertise or meeting other people's expectations. The process incorporates directing one's learning towards improvement of performance to meet new trends, or close the gap of insufficient knowledge; self-imposing limitations on their activity, if the quality standard cannot be met; giving up some ideas due to discouragement by the complexity of the task or potential criticism; developing commitment to quality through career.

An older person's engagement in generativity is built on a belief in performing in an informed mode - "*doing the job with full adequacy of your mind and abilities*". The benchmark for quality performance is based on subjectively developed quality standards. Maintaining one's beliefs of quality standards is reflected in older adults adopting a responsible attitude to properly doing their job without compromising quality: "*If you start doing something, you must work very well*". Quality performance is motivated by seeking recognition of one's expertise or meeting other people's expectations. Disappointment at their efforts being not appreciated, or facing unsatisfactory assessment of their performance, or commitment to meet expectations from other people may become strong motivators for further development of their competence. Resolving to learn more about a specific area may become part of their response to criticism:

Let's say I am a researcher at a lower level. Because there are people coming or calling and asking "can you tell me about that" or a university professor needs some material for an article about a prominent local figure in history. So, I do my best, find something, and we share mutually (Ruta, 73)

There was a challenge. They say "I thought it was a hotel, but it's only a private house". That was a blow to my self-esteem. It was absolutely unsatisfactory to me. So, I uploaded the photographs of the apartments that I had taken myself. Then I went to the Tourist information centre, and brought back some maps, and booklets, and made an information stand. Then I did some research – I visited all the places to be recommended. Now I am following all the new developments (Nele, 62)

In other cases, when feeling one's efforts for quality work are unappreciated, or when encountering criticism for the quality, older adults may self-impose limitations on their activity. An older adult may recognize the limitations of their abilities to perform complex tasks. Assessing the level of proficiency required Acknowledgement of one's limited ability to handle the situation at an expected standard based on assessment of the level of proficiency required may cause a feeling of disappointment with one's performance, especially if it is combined with the feeling that their efforts for quality work are unappreciated by other people. Being discouraged by the challenge of the complexity of the task or potential criticism one may come under, an older person may give up some new ideas:

There was a film being produced by the culture center, so I also contributed by editing the script. However, the film did not meet our expectations, I mean those people who had contributed. So, I think I will have to give up my dream of making a film about our town, as I

have realized that it's not so easy, and there are drawbacks, and you are likely to come under criticism (Ruta, 73)

An older person may be also critical of their own performance. Analyzing the situation of what might be needed, an older person directs their learning by looking for ways of improvement to meet new trends:

You need to shorten it, change something, because it is not interesting any more, there is a different approach now (Ruta, 73)

An inherent need to do things in a quality manner and commitment to quality may have been developed through career. In many cases reported by participants, inability to meet that subjective quality standard was the reason to discontinue the working career. Participants reported making a decision to retire from their career when feeling stuck and not able to progress, or feeling not adequately doing the job. Participants reported committing themselves to maintain quality in post-retirement activity, which was linked with the values developed in professional career. They believed that one should adhere to one's quality standards for professional performance and continue performing activity in a quality manner:

I retired because I felt that I needed to – I was tired and couldn't take it anymore. And I knew I was stuck. I couldn't pretend I was working my job right because you needed to work properly there (Tania, 70)

That was difficult, when you saw you couldn't do it. That feeling was pushing me out of the school (Nele, 62)

They all say that I still have the teacher's character. You know, that responsibility has become inherent. You want everything that you do to be in the right way. You don't want to do things haphazardly. It's very important that everything goes smoothly, the way it has to be (Ina, 73)

An urge for constant improvement may be stimulated by a need to continue what one has started in order to complete and to develop further. Identifying the areas for improvement is accompanied by identifying „weak spots” or „gaps” in one's knowledge as insufficient for further development of activity, which stimulates an older person to learn:

As I have been interested in that [collecting history material for the local museum] for a long time, I have gained a lot of experience. I have put my heart in it, so I have to continue. It seems that some things need to be done, some haven't been finished yet, and some need improving. You don't know some piece well, so you need to learn more. You see that some topics haven't been completed, so you need to work on them, and this is all about you improving at the same time (Ruta, 73)

Guided by pursuit of informed generative performance, older adults engage in the process of constantly assessing the achievements as progress of performance by using subjective quality

standards. When assessing their progress in the generative activity, older adults employ reflection on the achievement of intended outcomes. The process incorporates assuming subjective level of proficiency required in the activity; identifying one's success, on basis of external verification; identifying positive change in one's status, an improved self, development of abilities; measuring the level of independence, effectiveness or quantity, sufficiency of efforts; invoking strategies of comparison, observation and adjustment.

Assessment of progress indicates how older people interpret their self-directed learning (achievements) through their pursuit of generativity. The dynamics of the process may be observed in the assessment and reassessment of achievement and resetting goals. Improvement of performance takes the form of recognizing what the person did to achieve intended outcomes, and requires developing measures for assessment, which demonstrates older people becoming aware of their learning efforts, in terms of their success and outcomes. Throughout the process of constructing their learning efforts, older adults undertake reflection on the meaning of the knowledge and wisdom acquired in later life through their engagement in generativity:

One must try and attract positive energy which makes you stronger, comforts you, and gives you hope. You keep learning all your life because it expands your consciousness, your horizons, and you start seeing, or you may just believe, and feel, and you get that knowledge of the actual state of things. Having knowledge does not mean showing or proving what one knows, it may only signify sharing your thoughts and ideas (Svaja, 68)

The process of reflective practice entails development of measures for assessing one's performance based on a subjectively imposed level of proficiency required in the activity - "*the way my own insights and understanding allow me*". Evaluating one's ability to do a productive activity, an older person may measure it by identifying one's success. Those measures may include positive or negative external verification. Positive external assessment of the productive activity is appreciated as a proof of one's success and sufficiency of proficiency. A moderate level of external approval may be considered sufficient for verification of their proficiency:

Five months of work – joyful work, which you are able to carry out, and you feel you are performing well – it's a success. And now I have received this beautiful evaluation – I must tell about it with pride. I believe this is my success. I will frame it [certificate of approval] and put up on the wall, but modestly - in my "office room". If I display it by the entrance, it will make things worse. When people see it, they will start looking for faults. But if they see it when they come in here, that will make a difference (Nele, 62)

Now I have made a lot of embroidery [pictures]. Those who come can see, but I don't want a public display. Although some people say that I could make an exhibition as a folk artist, but I don't need it (Gene, 77)

The assessment may be based on the degree of other people's satisfaction with performance. Feedback from other people is especially important when an older person is assessing the level of performance of a new type of tasks:

I looked again at the internet what types of advertisements there were, and I wrote one, edited and formulated everything myself. Then one of the candidates who came told me that she found my advertisement really comprehensive, and she was sure that would attract a lot of proposals. This gave me more assurance (Nele, 62)

The criteria of one's efficiency in developing understanding relationships with younger generations in one's family, positive change in one's status in the community, and other people's reliance are also considered as criteria of verification of one's efforts and abilities:

I understand my grandchildren very well. Our relationship is excellent. They are not mature yet, so I don't know if they are able to evaluate. No, they must be able to, but never say it directly (Elena, 71)

I see that now I am more needed and recognized than during my career. I could feel it a few times. I don't know why they think so. I have always been modest, and have never wanted to be at the front. But I get 'pulled to the foreground' by others. I never show my initiative. If they ask me and take the lead, I can write or say something (Ruta, 73)

I say you could leave me alone, and somebody else can take over, but somehow ...I am happy, though. I sometimes say that there is "too much honor" for me, but they say there is nobody else to do that. When I see that something is not right, I feel a need to put it right. If things are not the way they should be, and I can put them in order, why not to? (Ina, 73)

The concept of proficiency becomes central to assessment of one's performance. Participants admitted that due to lack of specialist training for their post-retirement activity they did not know the exact standard of performing the activity. Development of the subjective criteria entails assessing the level of proficiency required and the limitations of one's abilities to perform at a required standard. Participants recognized the possibility of limitation of their performance, which they dealt with by having recourse to reading and trial:

I may not be performing a speech therapist's job to the full, and I may not know how to perform it correctly, because one needs specialist training. I read that singing improves the activity of the heart and lungs, and helps breathing and blood circulation (Elena, 71)

Ability to do things independently is accepted as a criterion of assessing one's learning outcomes:

Of course, I can't do everything with it [computer], but when I need something, I can do it, and I search for information on the Internet, if needed. Let's say to organize a school reunion, I look at how others do it, and I use the information I find (Ina, 73)

I took interest in homeopathy in a difficult period in my life, and it revived me. And now I have a book which I rely on very much, it helps to get rid of emotional and bodily problems by myself (Nele, 62)

The skills may be assessed on the criterion of the effectiveness of one's activity - managing to deal with a situation, and experience positive effects of the efforts:

I go to all those health websites. I had identified my illness that was later confirmed. I filled in the symptoms, and it was identified. And before that I had seen three doctors, and they could not find my illness. Then I told them what it was, and I was operated on, and they gave the medical treatment (Brone, 64)

I give a lot of attention to my health now. I use natural ways – going for a walk every morning and 'bathing' with sesame oil and herbal tea, and I feel I have more energy (Ruta, 73)

Quantity of the activity performed may become a measure of assessing one's skills, e.g. quantity may be measured by the number of books read in a year:

I have noted down for myself – I keep record of how many I read a year. Depending on the year, it sometimes comes to as many as over 50 (Gene, 77)

I read a lot, with great love, a novel after a novel, two books a month, which makes about fourteen to fifteen books a year. It might seem not many, but in my case, when I didn't use to be able to do that, it's fantastic (Nele, 62)

Participants found that conscious efforts to improve performance made a great difference in the older persons themselves - an improved self. Spiritual growth is perceived as a result of an older person's efforts to improve personality. Participants appreciated the strategy of reading psychological literature, which may be effective in coping with emotional problems, and also changing the attitude to life. It may help an older person to develop a way of learning considering one's life experience in the light of the input from the literature:

As I said, it was more of a spiritual change (Ina, 73)

I read books, not novels, but psychological books. There was a very difficult period in my life, might have been depressed, when I was looking for helping myself. So, I found a book, and that book helped me. It helped to change by attitude to life. It gave me strength to draw myself up, and get rid of some things which I considered myself responsible for (Brone, 64)

The achievement may be evaluated by the results of one's practice in terms of further development of one's abilities. Ina reported becoming more skillful at singing and having improved her voice through her performance in the church choir and the prayer group, and Elena was happy about her memory being trained through singing by heart:

My voice has really improved in these last six years. It was difficult initially. I am a soprano, but I couldn't sing those high notes. Now I see that I have achieved that, it's not an obstacle any more, as my voice has been trained well (Ina, 73)

At home, I started practicing singing lyrics by heart. Now, I have performed solo a few times, and I feel the effects on my memory (Elena, 71)

Assessing one's psychomotor abilities becomes of considerable importance in later life. Positive evaluation of one's performance makes an older person proud of one's achievements. Engagement in generative activity is associated with sufficient cognitive abilities, high intellectual performance and good memory. An older person may identify an improved brain function as an indicator of achievement:

I feel it really helps my brain (Ina, 73)

I do crosswords, and I always know the answers. It surprises me when I watch those quizzes on television, and those people don't know who has written a particular book, the titles or the authors. I can often remember even who has created a particular opera, because I would go to the Opera House when I was a young girl (Gene, 77)

It's something like this – when I see the cover of a book I know if I have read it, and I remember the impression it made. The other day I was returning six books to the library. I looked at the cover of one of the books and I knew I had liked it, but could not remember what it was about. I have to look at the abstract at the back of the book, or open and read a page so that I can remember (Tania, 70)

Evaluation of one's progress may also adopt a critical approach of insufficiency of one's efforts. An older adult may reflect on the process of self-directed learning leading to achieving the learning goal. However, even having identified a need and set realistic goals for self-directed learning of particular skills important to the development of one's generative activity, an older person may identify lack of determination to start the process of learning:

I haven't reached some goals, though. For example, to learn the Polish language. The Polish come here very often, and it is difficult to communicate with them because they speak neither Russian nor English. I have a dictionary, and I could learn a little, and there are things available on the internet. I've set myself a goal to learn some Polish this year, but I haven't even started yet. Well, at least I have formulated a wish. That's good (Nele, 62)

The strategy of comparison may be invoked in the process of assessment, when identified difference between the initial and later (improved) stages of one's involvement is used as a measure of progress. Participants reported feeling ill at ease if not performing at a sufficient level initially and appreciating their own efforts when the skills improved:

Singing lyrics by heart posed a challenge. I felt embarrassed when I didn't know the words by heart, and had to watch the articulation of one of the other singers, and imitate, actually, follow her. That was at the beginning until I learnt. You had to go and sing, and you were not allowed to have a slip, only in some exceptional cases (Elena, 71)

Subjective evaluation of the progress of one's activity is reflected in an older person observing the process and adjusting the efforts in order to develop an efficient way:

We had achieved considerable results [practicing music with a disabled woman]. But after a three-year break, you could feel a small step backward. But now I am trying it slowly for her and she feels a pleasure. It always seems to me that we are moving too slowly. I want to do more and faster, but then I see – well, you must “lower the wings” (Elena, 71)

Reliance on social environment through making use of the opportunities it provides is an important aspect of self-directed learning. Older adults rely on supportive social environment which is conducive to self-directed learning and develop knowledge-sharing relationships to facilitate their learning. Older people engage in learning through interaction and collaboration with other people in their generative activities for acquisition and sharing knowledge and resources. The process incorporates participating in community of generational peers; socializing with people in their immediate environment and living in close proximity; maintaining pre-retirement relationships; accepting support and encouragement from close people; making use of communication by placing the value on the content; maintaining personal relationships for emotional development.

The influence that the social environment has on older persons' learning opportunities is related to the importance that older adults place on their social environment. (Dis)encouragement from important others, establishing relationships of like-mindedness, opportunities to share your success or difficulties communicating with family members influence the way older persons construct their learning in the context of generativity. Participants recognized that older people engage in learning through interaction and collaboration with other people in their generative activities through sharing knowledge and resources, getting consultancy. Using social environment as a resource, older people may build knowledge-sharing networks which allows them not only gain knowledge in specific areas, but also learn about relationships and being in the world, being part of society:

Singing in the church choir means a lot to me - I feel needed. It's important when you are lone. My son lives far away, and I have no grandchildren. Nobody needs me, really. So, when I have this activity, and I am needed in that choir, I feel very good (Ina, 73)

Communicating with people gives you a lot. That's my experience (Dana, 64)

I share, but I also gain something from them [academics] (Ruta, 73)

I tried to consult specialists when they came to our town – I gave them a call and asked for consultation in person (Nele, 62)

When we have our meetings, we always share our thoughts, practices, and things that we have learnt, and so your knowledge increases (Laima, 64)

I get invited a lot, and I try to attend all events if circumstances allow. I never think if it's worthwhile. I just think if I can come. Sometimes the time is not convenient, or you are tired – there may be different obstacles (Jonas, 64)

When feeling limited opportunities for communication and socializing in their environment, older people realize the need to associate with the likes – people of the same generation. Having a community of generational peers may provide opportunities for acquisition and sharing knowledge. The community may range from one’s individual friends or neighbors to a small informal group of like-minded peers. The get-togethers provide opportunities to communicate the messages of what one has learnt, or share knowledge in informed discussions:

Our generation are kind of pushed aside, and we say that we, the seniors, need to get together (Ula, 64)

Now my library is “their library”. Every time when I select some books for my neighbor to read – he is really interested and reads a lot – I look through those books again. When he returns the books, I read some, and then we discuss (Dana, 64)

We have beautiful teatimes in our apartment house. So, we discuss books, and events, and share what we are reading. This communion is really beautiful. You know, one feels somehow “of secondary importance” at that age. I share my literary knowledge with my friends, if they are interested. You see, they read books by foreign authors, whereas I mostly read Lithuanian literature. I would say we ‘complement’ each other. Now there are a lot of magazines published – so we sometimes give to each other as a present (Ruta, 73)

My best friend is a poetess. So, when she gets hold of a good book, or learns something through other writers, she also tells me. Our communication gives me a lot (Gene, 77)

I would always find something about the topics I am interested in - about health or getting to know the world. Then I would write on sheets of paper and give to them. That was the most wonderful period of a few years. We would meet every Sunday (Svaja, 68)

Interacting with people may be given preference as a source of getting knowledge - seeking advice from people with specific expertise. Older people may use socializing with people in their immediate environment/living in close proximity as a resource:

I don’t read about gardening – I ask my neighbors. We exchange seeds and plants, and consult each other (Tania, 70)

And then there come the friends, with who I am connected through my business. The ‘great breakthrough’ happened when one of the friends told me “try through booking” (Nele, 64)

My son is an IT specialist and helps me a lot, and recommends things. There was a celebration event which I missed on TV, but wanted to see. So, he taught me how to access it on the Internet and watch on-line. Next time, if I forget it, I will ask him again – there is still a lot to learn (Ruta, 73)

My son works as a programmer in England. I write down what I need to learn about the computer, and he shows me when he comes to visit me. There are also some neighbors who understand computers well - so I ask them (Ina, 73)

Older people make efforts to maintain pre-retirement relationships and use them as sources to find out about new developments in the area of former career:

I still communicate with one of the teachers – I learn all the news from her, as school life is still interesting for me. I ask her when we meet on the street, or sometimes I visit the school (Ula, 64)

Learning may also be motivated by a realized need for more knowledge and better skills for one's practice in pursuit of self-expression within a group. For example, Laima admitted that working on a regular basis as a member of the local group required reading a lot of literature to be able to perform her enlightenment job. Participants reported feeling an inherent need to continue collaboration with other professionals in the area of their generative activity and contribute with their expertise. However, some collaborative learning may be questioned for its usefulness or acceptability for yourself:

Now the last of us [a group of like-minded peers] is finishing reading that book and then we are supposed to discuss it. I was reading that book in the summer, and it made me so angry. I thought that book was not suitable for me, but it was written for a younger woman. It taught you enjoy life, and how to be happy, but my mood was different. But I believe we will get together and discuss it (Tania, 70)

Participants expressed some criticism towards organized non-formal learning in later life due to limited cognitive abilities of older people and also questioning the possibilities to use the knowledge acquired:

If we look at the practical side, we must recognize that the learning abilities are limited, memory is worsening, and secondly, where will they use that knowledge? Unless the purpose is only personal pleasure, and personal development in a circle of like-minded people (Jonas, 64)

Older people feel motivated when they are shown appreciation of their generative activity from important others. Receiving support and encouragement from close people, especially family members, through being recommended and provided with some sources of information, the extent of their activity being observed and assessed, consulting their family for approval of the activity, and enjoying recognition for the quality of work. Some participants reported that external encouragement, approval of important ones, or having active friends stimulates their engagement in activity and sustained participation. Receiving support from a close person stimulates an older person to engage in active self-care. Participants appreciated family support and encouragement to learn:

My son found on the Internet [online lecture course], and he paid for it because I can't afford it. He is interested in non-traditional things. [] He could see how bad my condition was, so he found all those methods and also arranged for hospital treatment [] He sends those materials to my computer. Then he reminds me asking if I have read, or if I have practiced (Ruta)

I don't know if I would do that if not for my elderly mother. I may not have that confidence. My mother has helped me a lot until now, she has always supported me in this business (Nele, 62)

Let's say you don't want to participate in events alone – you need to find someone to go with. You have to do that yourself. It also depends on what friends you have (Ula, 64)

Social environment may provide an impetus and stimulation when an older person feels difficulty to learn independently. Considering a possibility to initially contact a trustworthy person for advice on developing a learning project further if needed may be recognized as a practicable strategy:

You need some environment for foreign language communication. If there were courses with discussion, that would be very helpful (Vaida, 67)

If I need to find a way, I will ask my niece for advice first. That would be the beginning of my plan, which would help me to set the goal and work towards it (Tania, 70)

The sharing relationship developed with a close person stimulates an older adult's sustained interest in learning. Participants reported placing a great value on an opportunity to discuss newly learnt things with somebody who shares the same interest. Lacking of conducive social environment for sharing one's knowledge may arouse the feeling of meaninglessness and detachment:

I keep looking for such things that are interesting to me – in medicine, education, some new developments – I search in my computer. I like to learn about new things a lot. Then I tell my husband, but he does the same, or even more. So, we gather knowledge for each other (Elena, 71)

I feel another loss – my husband was really interested in politics and had his strong opinion, and we would always discuss different issues. Now there is nobody to discuss things with. My friends are not interested. <...> But knowing politics is very important to me and interesting, I follow current developments, but I never express my position – there is nobody interested in it (Tania, 70)

When faced with disapproval from close people for the intense engagement, an older person may resist it, finding justification in doing good for other people or reconsider the extent of one's activity:

I can't live without the museum, and now I am going there. My son and friends scold me for involvement because of my poor health. But I feel very good in here. It might be because of that aura (Ruta, 73)

My husband asked me "Are you not satisfied with your life? Why are you looking for all those jobs?" But I am not looking for jobs - it's about forming attachment to people (Elena, 71)

Participants recognized that they also preferred getting the practical information from other people, and identified the sources in social environment – friends, acquaintances, ex-colleagues: Preference for getting knowledge through communication may be given due to the immediate access to specific knowledge and a concise form of the content - summarized and concentrated:

For you some things are difficult to comprehend, whereas for others they may be obvious. Therefore, when another person 'chews' the knowledge for you and gives you the conclusions, that's very good, and saves time (Svaja, 68)

When you need knowledge, there are two main ways: searching on the Internet is one way, and the other way is simpler – consulting your friends. For example, I have some knowledge how to deal with machines, but when I have a repair problem with my tractor, I may not have some specific knowledge. But my friend is really experienced in such things, and he knows. Or if I want to do some metal work, I ask my friend, who has all the grinding equipment, to teach me, or help me, if I feel I will not manage it on my own because of lack of skills (Jonas, 64)

I find the knowledge on the internet, I look and find how to do one thing or another, I have mastered it [the Internet] well. If I can't find the answer on the internet, then I go and ask a specialist. I mean, somebody who has or does that particular thing. How to prune trees, how to plant something... for example, why black currant bushes don't grow berries? I kept reading but wasn't able to find anything about that... then I called my neighbour and asked to come and see my garden... that must be some disease, but I can't find any information ... (Yolanda, 71)

In very complicated “borderline situations” an older person may attempt to get advice from people with similar past experience. They also have a preference for specialist advice and consultation over studying literature:

I tried to get some advice from a nurse working in the school, who suffered from a similar condition. She helped me a lot, as she had read about that, and she communicated all that to me. On the other hand, I had no inclination to read specialist medical literature I was responsible for everything, so, I wouldn't have been able to look for additional literature, as I had neither time nor energy for that (Tania, 70)

Contrary to popular ideas about older people participation being due to their need for communication, most participants reported considering the value in terms of the content rather than communication with people:

Meeting or communicating with people does not appeal to me. I am trying to assess it as a cultural event in itself. I would say: 'I don't like "crowds", or "being in the crowd" (Dana, 64)

The primary learning environment involves the family, friends and acquaintances, an extended network of which may make a wider social network unnecessary:

I don't need the so-called 'unloading' – I don't miss that. I have my family, a few acquaintances, who I meet, and I also communicate with my former university friends (Petras, 82)

Communicating with a close person for emotional development may be of primary importance to both lone older people or people with a family as they still feel a need for personal communication with a “soul-mate”. One needs somebody to support you when you feel overwhelmed by responsibilities and exhausted by performing life tasks. Inability to go out and communicate with others, while looking after an elderly person, may cause emotional distress to a retired person who used to be very active:

Sometimes you need a 'genuine' person for a talk - somebody who has never let you down. You really need. Then I 'run away' and I look for such a person. I need that for my soul (Brone, 64)

I believe that a person of my age cannot be alone. They need another person – a person who would be by you, with whom you could talk, who you could lean on – who would understand, and listen to you. I can't imagine noise, conferences, going somewhere, sitting and listening. I think there should be some kind of personal communication (Tania, 70)

You sometimes feel so distressed. If you were all alone, and had nobody to support you, or "pull you out" – it could be very difficult (Ula, 64)

Generative older people tolerate, and may even appreciate their living alone, which they associate with their independence:

I feel very well living alone. As I say "loneliness is my friend". There is equality mark between loneliness and freedom – nobody restricts me, and I see no problems in being alone (Ina, 73)

The process of Reconciling past and present - integrating pre-retirement learning experience with post-retirement learning needs: The context of informed generative action

In vivo: "I want to live in today's world. I don't want to be a retired woman going gaga"

In the process of reconciling past and present in their self-directed learning older adults integrate their pre-retirement learning experience gained through professional development events with post-retirement learning needs related to informed generative action. Making use of one's pre-retirement career competencies is integrated with the current need for competence when engaging in post-retirement generative activity. Acceptance of new developments in different domains related to generativity is associated with experiencing a clash between the past – the older person's experiences and worldview, which have been formed in the course of the life time, and the present – encountering the life of new generations, and respective modern developments. Acknowledging continuity in learning, older adults transfer their professionalism to the generativity context, invoke enduring learning strategies, develop a strategy of acceptance of new trends with reservation, and engage in learning through reciprocity with succeeding and preceding generations.

The process of transferring professionalism incorporates transferring competence to new productive generativity-related contexts and further developing one's professional competence motivated by sharing. Taking up a new activity poses a challenge to an older adult and encourages to find ways of dealing with it by invoking their professionalism as a readily available personal resource. Older adults create opportunities to make use of and build on their professional (specialist) pre-retirement competencies by transferring their professionalism. Participants pointed to a link between learning for post-retirement-related engagement in generativity and self-directed learning mode of continuous and intense professional development throughout pre-retirement career. Most participants still identified as professionals and found ways to integrate their professionalism into their present lives to a greater or lesser extent. Participants reported using their professional competencies in a variety of generative activities ranging from caring for other people to productive activity to communication with family members across generations.

In their self-directed learning in post-retirement, older adults engage in the process of reconciling the discontinuity and continuity in their professional expertise. The duality of the situation is represented by older adults facing conflicting beliefs and needs related to their expertise gained through their career: accepting the prospects of it becoming obsolete to maintaining one's continued interest in professional knowledge. In the transition from professional activity into retirement, an older person undergoes detachment from one's pre-retirement environment. The period of transition may last for as long as a few years accompanied by some ties maintained with the former working career:

Today I am fearing to meet somebody. I don't want it anymore, as it all feels alien to me – the people and the environment. But I used to miss my ex-colleagues – I used to come and see them. They would always invite me if there was an interesting lecturer coming, or some discussions taking place, or celebrations on special occasions. I used to come to the school with pleasure for some two or three years after retirement (Tania, 70)

They don't come to me anymore. It's already been for six years. Sometimes I encounter them, and then we talk, but otherwise... They sometimes ask me for advice - what to do in a particular case, what authority to apply to... I refer them to the head of sub-district administration for advice. I'm not in a position to help them, because things have been changing very fast, and I may mislead them. Legislation and everything have been changing, and you can mislead people. Of course, I am still interested in what is going on at the local municipality. I go and

see them, and they invite me to come. I feel a need to know. I sometimes go for a walk or for a drive to visit those villages, and see how they are doing. I know all the people here. But not the young generation, though. I don't know those young people (Yolanda, 71).

For a retired person it may be difficult to break ties with one's past identity as a professional. Retired professionals may feel nostalgic about their professional knowledge and maintain continued interest in professional issues, especially at the beginning of the post-retirement period. Although recognizing its appeal, participants reported feeling embarrassed about maintaining their interest in professional literature. The embarrassment may be stimulated by perceiving it as having no practical justification in the present life or doubting the usefulness of one's professional knowledge after retirement. Being susceptible to criticism from others in respect of their "*futile interest in professional knowledge*", they may conceal their continued interest:

After I retired, for some two years I subscribed to a newspaper for teachers. During my career, I used to read it in the library, because I liked it very much. I retired, I thought it would seem strange to other people if I keep coming to the library to read it. That's why I started to subscribe it to my home. I kept reading it for two more years – I was longing for all those articles, and the knowledge (Tania, 70)

I even catch myself and feel embarrassed – this magazine is for linguists, with articles about methodology, about writers, but I get and read it. I know I will not need that knowledge, but it's still interesting. I can't detach myself from that yet. Especially the "Metai" journal appeals to me. Of course, there is nothing about plants or household maintenance in it. It contains articles about literature and culture. I borrow it from the library (Ruta, 73)

Older professionals in the study associated themselves with their profession – they believed it to be part of their personality which persists after retirement. Identifying oneself with the professional background may stimulate an older person to maintain and publicly articulate their values and views:

There is such a thing as a teacher's responsibility, which means you must do what is needed. Although, I sometimes feel sorry that I haven't learnt to say „no”, as it has affected my time and health (Ruta, 73)

The participants' discourses demonstrated that they were considering how their past professional qualities and expertise could be integrated into their present lives. However, the discontinuity and continuity in one's professional expertise may come up as a dilemma for a retired professional. The attitudes of participants ranged from "*Who needs me with all my knowledge?*" to "*You still feel as a professional, and behave appropriately*". Some older people may doubt the usefulness of professional knowledge or be convinced that there are no opportunities to use one's specialist knowledge after retirement:

All that specialist knowledge becomes irrelevant to your life. I don't need that specialist knowledge of history any more. I don't need all those stacks of books that I have collected. I am not even going to look into some history issues in detail anymore (Vaida, 67)

Although this may seem a very straightforward statement, it can only be interpreted by further probing into the participants' perceptions of the meaning that professionalism had for them. For example, although initially denying the usefulness of her professional knowledge, Vaida admitted still reading some literature on the subject, which was encouraged by her grandson's request for advice:

Well, I have been reading now and then – now I was reading the history of civilization. Just because of my grandson – he is in the eighth grade, and calls me: “Granny, please, tell me”. So, we discuss some things (Vaida, 67)

Participants reported that sharing knowledge with other people was essential to their learning during their career. The relevance of the professional knowledge in post-retirement may be stimulated by new opportunities to share it in the context of generativity, family-wise in particular. Older adults are stimulated to brush up some specialist knowledge in post-retirement when approached by a younger generation of their family. Having enough knowledge to answer the questions of interest is a strong motivator to maintain one's professional expertise:

My grandson, who is in the third grade, comes for the summer holiday, so he is the one who “shoots” his questions at me, especially those history-related. When he sees a program on television, he asks such a lot of questions that I get tired – he is a real „tell-why”. I can still answer his questions in one way or another, they are not very complicated yet (Jonas, 64)

Participants maintained their professionalism when sharing their expertise with the young generation of the extended family working in the same or similar field. Their learning was stimulated by being recognized as expert authority on specialist issues and based on strong trusting personal relationships:

Now my favorite niece works as a social educator, and we are “soul mates”. She calls me about her problems, and asks for my experience, what I would do in such a situation. So, we discuss the problems, and she considers me an authority on that (Tania, 70)

Where can you use that knowledge? There isn't much need for that. But my daughter is a teacher, so she asks some questions on educational issues. So, it's only in the family yet. If someone invited me somewhere – I might go and share (Jonas, 64)

My daughter comes to see me and tells me the news in the school. She is a primary school teacher, so I can sometimes give her some advice (Gene, 77)

Older adults may create opportunities for transfer of professionalism by employing a creative approach to finding ways to use one's skills and knowledge when in new productive generativity-

related contexts. Elena adapted her professional skills as a musician to looking after an elderly person - she learnt his favorite pieces of music to practice singing with him. She also sought for techniques to use singing as a way to help a disabled person to recover speech after a stroke. Some generative activity may demand skills which go far beyond the older professionals' expertise, and require continuous engagement in self-directed learning. Former teaching professionals may use their educational skills for improvement of their relations with family and other people. Nele used her skills as an educator to stimulate her elderly mother:

I think I continue being a teacher. I take over those things from my career and use them in my relationship with my mother. I “push her forward” so that she lives longer (Nele, 62)

Laima adopted her professional approach to taking care of her granddaughter, although she admitted that trying to find the right way to deal with a hyper active character of the child of the contemporary generation required further development of skills and learning new things:

Taking care of my granddaughter requires new learning, because life is never stable. If I compare her upbringing with that of my older granddaughter, I see a completely different approach. My youngest granddaughter is of such a character, as one psychologist said “she is like three boys” You need to learn how to communicate with her. I have a friend psychologist in the capital city, so I consult her very often on the issues of child education at that age. The third year is critical in a child's life, and you have to know how to overcome the whims and things – there is a lot to do. Thus, I can still use my professional skills (Laima, 64)

Professional knowledge may become an advantage in the development of a new productive activity. Professional English language skills helped Nele in post-retirement to develop her personal (lodging) business internationally:

We changed the type of activity. Now there were foreign guests coming, and I used my English language skills. There started to come feedbacks in “bookings” saying “perfect English”, “the hostess communicates in perfect English”, and you know that foreign people when they come, they want to communicate very much (Nele, 62)

When developing the competences needed for their generativity, older adults build their self-directed learning on past learning experience by invoking long-practiced, enduring common learning strategies as “affordable methods” developed through their career. The process of invoking enduring strategies from the past learning history to build relevant competences incorporates invoking the meta-skills picked up through professional development, following new developments in the post-retirement activity, maintaining a professional attitude to performing an activity, drawing on accustomed sources, and “natural” independent learning strategies.

Participants reported that they retained the learning patterns and continued using skills developed through career: the use of IT, independent search for literature, learning through sharing with colleagues, etc. The opportunity for further development of professional skills may come up unexpectedly, and retired people find themselves faced with a need to “revive” their skills. Ina, a

specialist of English, was going to brush up her English for family reasons – to be able to communicate with her son’s girlfriend. If the generativity-related situation requires to update the competence, the older person may invoke the meta-skills picked up through professional development:

When I finished, I thought I would never need that knowledge again, and I would leave it alone. But I see that life has made some corrections – now I need to return to it and refresh the knowledge. I have some books in English, so I will read. I can remember the grammar, but the words. I feel I need to ‘revive’ them (Ina, 73)

You can learn [English] independently - just download and install some applications on your computer and do everything. I have given away some dictionaries to my grandson, but I still have one left for myself, so that I could learn a little on my own (Vaida, 67)

Participants compared their present situation to the self-directed learning mode of continuous and intense professional development throughout career recognizing that most of their learning during working career was of self-directed nature. Participants associated their self-directed learning with a responsible attitude to doing the job, when they were making determined efforts to learn to deal with new developments in their professional area considering it obligatory:

When I had to learn an absolutely new accounting program, I would say to myself: you must do that, there is no alternative – and I did (Brone, 64)

I was looking into things, because I wanted my pupils to have about as much knowledge as I did (Dana, 64)

Participants’ discourses demonstrated clear associations between their self-directed learning in post-retirement and that during the years of working careers. Learning was an accustomed way to adapt to change in the environment by developing relevant competences. Motivated by a need to adapt to change in the status as an ageing retired person, older adults approach their self-directed learning process as a continuation of the learning practice developed during their careers. In the past, the need for self-directed learning of most participants was stimulated by the period of transition of the political system which was followed by change of assessment of knowledge basis. The change in career required extensive self-directed learning to gain the relevant knowledge to „feel safe“:

If you came to a new job, and you had only that knowledge which you had acquired previously, and you didn’t make efforts to develop your competence, you must have felt really unsafe [...] That period was complicated, but interesting. Now there aren’t such interesting radio or TV programs any more, and things have become mundane. At that time, all the things had to be learnt anew (Dana, 64)

Older adults rely on the knowledge acquired through their career drawing on their accustomed sources, following „the natural course” of things as well as experience when a need for specific competence arises. The meta-skills acquired through the years of professional development enabled

participants to use a structured approach to performing complex tasks: turning to the „affordable” methods of information collection, and invoking the independent learning techniques practiced for years, which have become natural: “*you read the manual, try and learn*”. An older person may not be able to name the independent learning strategies which may have become subconscious through the years:

You just do and manage it, sometimes accidentally. I don't know how I managed to create my “Facebook”. I really don't know. Then registration with doctors – nobody showed me. You just try and do, and find the way (Ina, 73)

I don't act impulsively – suddenly or without considering things. I have always had my saying “to get ripe for the tasks”. If you need to do something, you should never rush immediately, because you will have to redo it. I put everything together in my mind, and this can take a week. It looks as if I haven't started doing the task, but all the things are being arranged in my mind gradually. When I eventually I get down to that work, I do it very fast and consistently. Some people would get surprised at the speed of performing saying ‘that was really fast’, but I have been ‘getting ripe’ for quite a long time. So, I still apply this strategy in every area (Dana, 64)

I work slowly because I make notes of the texts. Now I have looked through all my notebooks – and I refreshed my mind again. I found a lot of useful records. It seems as if the knowledge as much as I have acquired is coming back (Ruta, 73)

Maintaining a professional way of thinking and seeking to perform post-retirement tasks in a professional way stimulate older people to adopt a responsible approach and continue following new developments in the area of their activity:

This job that I am doing now makes me feel a little younger, as it makes you think professionally (Svaja, 68)

When you work as a bookkeeper, you keep learning, because there are always new things introduced – new programs and data bases (Brone, 64)

I always prepare – I read all the page of the Teacher's book, paying attention to the guidelines it gives; which things have to be emphasized, or how to adapt to the learner's level. Then I do everything it says in the Teacher's book. And I feel I am learning myself. I was attracted by the idea that I was going to take up teaching, and will use some of my skills (Elena, 71)

The value of one's skills in getting knowledge and information is appreciated by a retired person as an achievement and their investment continuing from the past to the present. Jonas was proud of his proficiency in a foreign language and making use of it for getting global knowledge:

I watch Discovery, Travel and other interesting channels in Russian. I have no problems understanding the Russian language (Jonas, 62)

Developing a strategy of acceptance with reservation

In vivo: “Moderation in all things”

In their efforts to reconcile past and present in generativity, older adults develop a strategy of acceptance with reservation. Sound judgement is developed through using one's common sense and trying out new techniques, which is a combination of one's previous knowledge and considerations of the new approaches. The process incorporates employing their ability to work out and form their own method of practice; moderate resistance to the new trends in approaching tasks; considering withdrawal and giving up a certain area of activity when one's expertise is not valued.

Being open to change and practicing critical thinking, older adults approach changes with reservation. Acceptance of new developments is associated with experiencing a clash between the past – the older person's experiences and worldview, which have been formed in the course of the life time, and the present – encountering the life of new generations, and respective modern developments. Older adults' attempts to integrate their past beliefs with common contemporary understanding of things may be expressed in adopting the principle of the golden mean – the moderate position between one's habit of performing a certain activity and the new approach. The sound judgement is developed through using one's common sense and trying out new techniques, which is a combination of one's previous knowledge and considerations of the new approaches. For example, the dissonance between their values and beliefs about child upbringing formed in the past, and the contemporary approach to child upbringing was evident in many participants' discourses. Facing the challenge of contemporary understanding of child up-bringing, they believed that inability to accept new trends was a result of ageing:

Now the conditions of child up-bringing are very different. They don't know the meaning of the word “it's not allowed”. I didn't realize it first – it was very strange. Such challenges just annoy me, so I am not sure I could continue that for long. I accept the new methods, but it's difficult for me. I hadn't encountered such attitude to up-bringing children. [...] No, I don't feel [age effects on activity] yet. Except that I can't understand those young children who are educated according to a new methodology. In a new way. Only this is where my age restricts me, as I was used to earlier methodologies, stricter ones (Elena, 71)

Elena approached the new methods in young children's upbringing with reservation: trying to accept the change and learn how to deal with it one has to look into the logics of educational situations and “*find some compromise*”. Elena developed her childminding approach by adopting some practices from the children's parents, but also using her own common techniques which seemed logical to her. The challenge of taking up childminding encouraged her to develop her own methods of dealing with very young “*unruly*” children. When dealing with modern trends, older adults demonstrate sound judgement in employing their ability to work out and form their own method of practice. Ula spoke of adapting her child-rearing practice when dealing with a different approach, but following her own ideas. She expressed a critical attitude to her children's child-rearing practice, and reported developing new methods to deal with her grandson's misbehavior. Her sound judgment of the effectiveness was based on the criterion of the outcome achieved:

Although the methods are different now, I tell them that they are doing something wrong. You must tell the child about the limits – what is allowed and what is not allowed. Sometimes I need to argue, and they don't approve of my point. I do understand that we have different views, and different life. My grandson will be coming from America for the third summer. The first summer was very difficult, because children are brought up differently abroad – they are allowed everything. Last year was absolutely different. And next summer will probably be even better (Ula, 64)

An older person may stick to their understanding and ways of performing, and show some resistance to the new trends in approaching tasks. They maintain their beliefs about ways of doing things in a professional manner, which may not comply with the „common modern trends”. Maintaining one's quality standards for performance may be associated with being critical of some quality standards set by a younger generation. An older person may not comply with the performance standards which do not correspond to their beliefs, and may express criticism of different standards set by a younger generation:

Well, you always need to improve competence. They say you need to write some interesting, funny texts [for the booklet]. But I am a person who belongs to another generation, and I think they are not suitable for such a booklet. I agree, if it was a different booklet. So, I distance myself from that...If you find something... (Ruta, 73)

Learning from the younger generation may be approached with reservation - through the „lens” of one's critical thinking. However, the change in attitude may be influenced by an expert authority or evidence of an advantage of the new approach:

He [son] came and asked “Why you don't recycle – we need to care about the environment and things?” And that's how I started. At the beginning, I thought there were too many bins needed, though. I listen to him. Although, in some cases I argue, it happens (Ina, 73)

The difference in approaches and inability to accept the new trends may stimulate the older person to withdraw and give up a certain area of activity, where their expertise is not valued. Although maintaining their generative concern – caring about younger generation to get involved in preserving customs and tradition – older people may become disappointed about the new trends which do not match their subjective understanding of the tradition. Although appreciating her activities and ideas being taken over by a younger generation in the community, Ruta was critical of the quality standard, and felt disappointed when her expertise was not used by younger generations for the benefit of the community:

I was just hoping that those beautiful Advent events [that she created] would go on as a tradition. So that they become instilled in children. But when I saw it the following year, I was a little disappointed. Although they continued that tradition. They have educational background in ethnic culture (Ruta, 73)

Self-directed learning enhances older adults' abilities of informed expression of generative concerns in the intergenerational social environment. The concept of reciprocity between generations in the context of later life learning encompasses creating a mutually supportive learning culture which originates in realizing the mutual learning benefit in the intergenerational relationship with preceding or succeeding generations. Interaction with and care about individuals in a younger or older generation stimulates older adults' learning for informed intellectual and emotional productivity as expression of generativity. The process of learning through reciprocity with the succeeding generations encompasses acceptance of change; encouragement for adoption of contemporary ideas; readiness to learn from a younger generation.

Learning from the succeeding generation represents the learning continuum in generational perspective: participants defined learning in the context of generativity as a lifelong process where one learns through bringing up one's children, then together with the children, and in the old age one learns so that to keep up with the children:

I believe people learn through bringing up their children, because we can see a lot of examples when people having no specialist background in education raise wonderful children. Now it's been named "lifelong learning", and it incorporates learning through intuition and experience (Dana, 64)

I am learning together with my grandchildren now (laughing), and it's interesting to me. You know, their coursebooks are so difficult – 4th grade Math, Science. There are such difficult questions, that I don't know how to answer them, when the kid asks me. And then we read and learn together. I realized I didn't know or had forgotten so many things, but now I've learnt. It's really interesting to learn anew. I ask my grandson: Why it's not interesting to you? It's such fun to learn about different things in the sky, and on Earth. I say to myself that I am learning again, and I am really happy about that. It's fun to learn about things that you have forgotten. However, it's just a trifle. I do read a lot by myself, as I am interested in many things, and science (Yolanda, 71)

The process of reciprocation with the succeeding generation leads to acceptance of change in the contemporary world and is associated with adoption of contemporary ideas. Many participants pointed out the situations where the commonly accepted historical roles of passing on the knowledge and life experience between generations are becoming reversed. The reversed roles are manifested in the way that "*in contemporary world one has to learn from younger people*". Motivation for learning is embedded in the desire to participate and "*live in the present, in today's world the way it is*":

I believe that life is progressing, and everything keeps changing. Thus, 'my wealth of experience' has become irrelevant to the contemporary world. That's why I have to learn from young people – especially these days. [] I willingly allow her to teach me, because I value the young age, and I believe that it represents life in these days, and I want to live in today's world - I don't want to be a retired woman becoming "gaga" (Nele, 62)

Learning from a younger generation may be represented by accepting adult children's attitudes to life, taking their advice, recommendations, listening to younger people's opinions and

having trust in them. The participants were very positive about their adult children observing their lives and giving advice, and encouraging their parents to keep up with the times, get interested in modern developments and prevent developing senile behaviors:

I am so happy that my daughter is by me. She wants me to stay young for longer, so she gives me not only advanced cosmetics, but also a modern approach to life, yoga, vegetarianism, contemporary music. She keeps telling me: "You are not a little old lady yet – look at our grandma – you can't be older than her". And my elderly mother is really interested in everything (Nele, 62)

He encourages me to learn about the meaning of life – he can see that I am reading not the right things, and that I need to develop myself in other aspects, that spiritual life is more important than my everyday rushing to do things. He has changed the direction of his interests, so he is also encouraging me (Ruta, 73)

I listen to him [son]. I rely on young people very much, and what they say. At some period in my life, I didn't read books, as I was ill. My son told me: "You should start reading, and you will like it again". So, I listened to him, and now I go to the library and read (Ina, 73)

Learning to accept change may involve a clash between past (i.e. one's experiences and worldview) and present (i.e. life of new generations, modern developments) in an older person's mentality. Learning to be in later life encompasses learning to deal with and accept other people acting in a way one disapproves of, to conceal one's disappointment and avoid negative emotions, which may be expressed in trying to subdue one's critical approach to some issues. However, an older person may not adopt a conformist approach and show their concern for values to be instilled in younger generations. Search for ways to express their generative concern stimulates an older person to develop appropriate behavioral patterns and learn their ways of expression of active citizenship:

I am critical of many issues, but I forgive because I am not God. I am not saying that my approach is the right one, and that my evaluation is higher than that of other people. But I tried once when there were some brochures prepared for publication. I wrote some texts like "I am concerned about", and I named some issues. They used one or two, but very sparingly. I think because of the shortage of print space (Ruta, 73)

Eventually I got a camera and took some photographs of all those things. And that will be history. Now I have a thick notebook where I record all the events of that year - both good and bad, but there are more good things happening. Let's say [I am] a "chronicle writer" – the "black writer" rather than the "white" one [mocking herself]. No, I write both good and bad things (Ruta, 73)

Learning may take place through observation and analysis of encounters with children, when an older person gets to know the mentality of the young. Petras engaged in analyzing the implicitness of communicative situations with younger generations seeing wisdom in young children:

You may think – she is only a child, and makes some childish talk. But her talk is quite clever, or even very wise – there is deep insight in it, and she does not feel inferior to you, or smaller, although you have reached your old man’s age (Petras, 82)

Participants saw a younger generation as very intelligent, gifted and seeking meaning. The idea of “*finding shared topics for talk*” with grandchildren and other people was based on the belief that communication with children and grandchildren, and even younger generation and relationships with people should be based on respect for and listening to their opinions, which offers plenty of opportunities to learn or to put things right:

We all encounter our children, and their children, and even very young children. And these encounters make you see such things from which you can learn, and which need correction. I find common talk with my grandchildren, and with many young people, but you should listen to them first (Petras, 82)

Older people may engage in their personality development under the influence of their adult children’s views and assessment. Many participants reported developing a self-reflection strategy in response to their children’s concern about some traits of their character in relation to “*living in the contemporary world*”:

My son teaches me: “Mummy, you must understand that other people can’t live the way you want, they can’t behave in the way you think right. Then you will start evaluating these people in a different way”. And he said this a few times. And I believed him, and started to observe myself from ‘outside’ (Ruta, 73)

She teaches me that I should be more reserved in my emotions with other people, that I shouldn’t tell them what I feel. I believe she is right, I shouldn’t, because thus you “put your worries on other people’s shoulders”. It’s better to cope with it on your own – I didn’t know that. [] She teaches me different things, like looking into the essence of things. She is in constant search for herself. When I was her age, times were different – we were not looking for our self (Nele, 62)

The impact of the succeeding generation on an older person’s change of behavior may go beyond the personal or family domain. Elena realized she needed a better understanding of new educational trends when she took up childminding with a friends’ family. Although having years of experience with raising her own children and looking after her grandchildren throughout summers, Elena admitted that she needed to learn how to deal with a new generation of children, whom she found completely different. Therefore, she was learning the methods of looking after a new generation of children from a younger generation of parents acknowledging that parents may have more informed ways of modern child up-bringing gained from different sources available to them:

I will try and learn from the children’s mother. She is really informed, not as if she has been highly educated, but she maintains interest in modern child upbringing – she reads a lot and attends seminars (Elena, 71)

Learning from the younger generation is justified by the younger persons' expertise, which older people acknowledge. In the participants' discourses it was associated with a variety of areas ranging from life-style to child rearing to house maintenance:

My son is my main consultant on the house maintenance. I hire the craftsmen myself, but before that I consult my son. I think of my idea, and then call my son to get his approval of my solution. We discuss, I make some improvements, and then I have it done. I look for ideas and solutions on the internet, but always consult my children. My son is a specialist that's why I ask him. He's got a master's degree, and has many years of experience, and has also built his own house (Vaida, 67)

The process of deriving inspiration for learning from the preceding generation through mutual reciprocity with a more senior generation incorporates observation of model behavior from an older person; encouragement for improvement: learning to care for a family member from a more senior generation in a way that enables; perceiving a more senior generation acting as an impetus for seeking knowledge.

Older adults may view and appreciate a generation of more senior people as models how to live in one's old age. The "older old" may demonstrate active engagement with their environment and positive disposition, which gives inspiration to others through their curiosity, enthusiasm and life energy. A following (younger) generation of retired people may see their behavior as a model to follow and learn from those older persons, who maintain an eloquent personality:

I am happy when I see those elderly people attending annual healthy lifestyle philosophy conferences at university. Some of the participants are very old, but they listen, show their interest, and they are full of living energy (Laima, 64)

The way their parents lived through their old age may be viewed both as encouraging or discouraging depending on how their lifestyle had been perceived by their aging and now retired children. Participants believed in respect for the older generation in their families for their expertise. Elena was convinced she had learnt to live in her old age from her parents as a model and hoped she could develop her character by following their example:

I think you can also become such a [bad-tempered] old person. But I may not. Because I could observe my parents in their old age. I should also be very patient, and not whimsical – this may be taken over in the family (Elena, 71)

Of course, in our family, older people have some authority in the family, and respect (Vaida, 67)

Participants reported their elderly parents' lifestyle of maintaining a range of interests and taking an active role in maintaining their physical health had a positive effect on their own development:

She [mother aged 94] has been doing a lot of things until now: doing various physical exercises, listening to health programs, learning about healthy eating – now we have changed the eating habits in the family, and I have also introduced new foods in my diet – I keep discovering new things about myself (Nele, 62)

The generation of their parents can also be looked up to for their learning methods, that a younger generation consider useful and practicable in their own old age. Nele was happy having adopted a new method of reading practiced by her elderly mother: a way to record what one has read – similar to one taking pictures of important moments:

My mother (aged 94) showed the initiative. She says that you read a book, and forget it. But you may want to keep the memories like taking photographs with a camera when you go on a trip. And she started writing ‘reviews’ of each book she has read. And I am doing the same now. I have written about one book today, but not commenting on what I liked or disliked, but just a summary. When you forget that book, you open your notes, read and remember – I have already been to that country (Nele, 62)

Relationships with a more senior generation may act as an impetus for seeking knowledge. The impetus for learning is embedded in the older person learning to care about a family member a more senior generation in a way that enables. The learning process takes place in creating an enabling environment for the older old person. In reciprocation relationships expressed through enabling care one has to develop ways how to compensate for physical deficiencies of an elderly parent caused by old age:

My mother has been active for a long time, and her activity goes through me. I had to become her arms and legs, She has an “architectural mind”, and she wants to build and expand, but she can’t do that. I agree with her initiatives. She pushes me forward – I have to make creative plans, because just going shopping for food or talking is not enough. Only then I see that she lives. She walks around the house and keeps thinking how to reconstruct it. Then I must implement the plan: talk to the architects and “become a manager”. I have always consulted her, and I could see if you go with her and participate in her plans – she lives full life. I believe the reason of her longevity is her proactiveness. Of course, her energy is gradually diminishing, but I am her ‘compensator’. I compensate for everything that she starts lacking. We have been doing well together (Nele, 62)

I take her [elderly mother] to the doctor’s, and I talk to the doctor, try to read about her condition and options for treatment on the internet. Then you can find some information that doctors don’t tell you about. And you learn about other people’s experience. She would read and find out that information herself if not for her poor eyesight (Dana, 64)

The caring relationship gives an older person a feeling of one’s importance and strengths through being with an elderly parent – realizing the mutual benefit in the intergenerational relationship. Productive activity in post-retirement may be inspired by a generative concern – continuing something that was developed by a previous generation. Nele appreciated cooperation

with her elderly mother in expanding her business activity after retirement, which became a driving force in the development of the activity:

My mother is very clever and wise. When being with my mum, I feel important, strong and needed. We have made a tandem, and we have been successful. We have done a lot of things. I don't know if I would be doing all this if not for my mother, I wouldn't probably have that confidence. My mother has helped me a lot so far, she has always approved of my activity. This activity is part of our lives. My mother even went to a newly opened restaurant nearby to see if we could recommend it to our guests – tried the food, looked at the menu, the working hours. She is over 90, but she still cares about it, and this is part of her life. This business makes me ask a question – what will happen when mother has gone. Will I still be doing this business? Because you need a purpose and a drive – what for? (Nele, 62)

Older adults' interest in health-related knowledge may be stimulated by looking after their elderly parent health-wise. Participants reported experiences of old age limitations they faced when looking after their older generation family members affected by dementia. Such experiences may encourage to look for knowledge about health issues and aging processes. Managing some complex situations may require an older person to develop their competence. Such situations may be related to a need to deal with life tasks, develop one's generative activity, or self-care. Participants reported a need to learn about care and nursing of their family members:

Sometimes there are moments when you feel really depressed. You feel alone, and also have to permanently look after an elderly person in your home all the time. You feel absolutely distressed sometimes (Ula, 64)

My mother was affected by dementia - she didn't understand anything, and that was very bad. It was an example for me what may happen (Vaida, 67)

The process of Sustaining self-efficacy in learning in aging-restricted circumstances: the context of generativity beliefs and concerns

In vivo: "You can start from zero – you can do everything"

This section will provide the research findings demonstrating how older adults exercise their self-efficacy in self-directed learning. Self-efficacy in later life is defined as an older adult's belief in their ability to carry out tasks independently. When faced with ageing-related issues, older adults visualize a trajectory of their future lives incorporating their generative self-care concerns associated with a need to maintain self-reliance and self-sufficiency and be in control of their life. The perceived independence in post-retirement provides greater opportunities to project one's autonomous learning trajectory and self-initiate the process of learning based on self-efficacy beliefs. Self-direction in learning is expressed in an older person's independent formulation of their learning goals and strategies and implementation of the learning process when managing the aging-restricted circumstances. The process of sustaining self-efficacy in aging-restricted circumstances incorporates maintaining confidence in one's abilities to be self-directed in learning, coping with aging-related inhibitors, self-imposing limitations, developing adaptive strategies consistent with the perceived

effects of ageing, and adhering to an accustomed style of learning built on self-reliance. Ownership of achievement is represented by older adults' assuming that they have the time, resources and the abilities to learn.

The process of maintaining confidence in one's abilities to be self-directed in learning in the context of generativity encompasses strong beliefs in one's ability to manage an activity on their own; building one's confidence on the competence acquired in the course of the lifetime, and expertise in a particular field of activity; "*standing your ground*"; competence development towards more complex tasks in the process of doing; perceived lack of personal efficacy may result in finding resources with which to complement a self-educating mode, or limiting one's activity; acknowledgement of and taking into account one's personality effects (the individuality); subconsciously seek help from outside to start something unfamiliar; engaging in collaboration with others on equal terms.

Establishing one's self in later years in generativity leads to having more confidence in managing one's continued self-development. Self-direction in one's learning may be associated with having a strong confidence in oneself, and one's abilities. Most participants talked about having a strong confidence in themselves and their abilities and believing they were able to manage a new activity on their own. When dealing with novel situations in generativity pursuits, older people feel an imperative to be self-directed in learning how to cope with the situation by themselves as "*you cannot burden other people with your problems*". An older adult's self-confidence may be reflected in believing in finding your way of learning by yourself. This may be adopted as the main strategy in learning, as nobody else can tell you what you need. Older persons try to independently develop effective strategies to learn the new competences or specific skills required:

The parish priest said that he had uploaded the photographs of our pilgrimage trip to Facebook. I was eager to see those pictures, as I also had been there. So, I created my personal account in Facebook by myself (Ina, 73)

I was looking for that experience here when being with him. There was nowhere else to go and acquire it, especially when I knew his condition was so bad. You couldn't "get on his doctor's or nurse's heads" by seeing them all the time. You just followed the directions given by the specialists and learnt everything by yourself (Tania, 70)

Every person looks for and finds everything by themselves. That's it. I don't believe that you can teach or tell them what things they should or shouldn't do (Nele, 62)

My strategy is based on determination and making efforts (Elena, 71)

Self-confidence is further developed through observation and analysis, formulation of one's beliefs and reflection of one's actions. Most participants believed they acquired enough competence in the course of the lifetime to be self-directed:

In our lifetime, we have acquired that knowledge of how to manage things by ourselves (Vaida, 67)

Once you have a degree, you are capable of self-directed learning. There is no single day that I don't learn anything – I sit down at the computer every morning, and some evenings. (Jonas, 64)

A high degree of self-confidence leading to self-efficacy in later life learning may be associated with the presence of this personal quality throughout the life-course. For example, Petras asserted that he acquired inner strength and built self-confidence and life philosophy through reading and communicating with good teachers:

I have always been self-confident. That's a bad trait, but nothing to be done. I learnt to rely on myself very early in my life – when at school, by reading. And I had very good teachers. I have always been interested in that, and I read literature. I did read a lot. It was interesting for myself. What motivated me? You need to overcome certain lack of confidence in yourself. Reading helped me to overcome that, of course (Petras, 82)

Realization of the past influences on one's self-efficacy in learning makes an older person reflect on their maintaining self-reliance in later life learning. Nele reported her lack of self-confidence to achieve more during her working life. Reflecting on the reasons why she did not achieve full potential in the past, she analyzes her present-day determination to live the way she considers right for her. She believes that the activity one undertakes in later life should be free of complication and satisfying:

I liked communicating with schoolchildren, But I was always afraid to communicate with adults. I have an inferiority complex, which other people can't see in me. I know I am self-conscious - I reproach myself a lot and underestimate. I know that's wrong. I lack self-confidence. I know I missed full self-realization in my career because I lacked self-confidence as a drive to move forward. Having been raised in a family who had been exiled due to soviet repression had an effect on my feeling of inferiority. I would try to conceal my fear and inability so that nobody could notice it. When at school, I was believed to become a writer. I haven't achieved self-realization, absolutely. Now I understand that the best way is where things go easily for you – you don't have to exert yourself or put excessive effort. If it goes easy – that's your way. You need to go with easiness and joy (Nele, 62)

The belief in personal efficacy may develop from successful completion of similar tasks in the past. When taking up child-minding as a paid activity, Elena was feeling confident about her abilities - her confidence being derived from experience and skills gained from looking after her own grandchildren:

It wasn't a challenge. I used to look after my three grandchildren when every year their parents brought them to my place for the summer. I had gained a lot of experience of caring for their physical needs including feeding, washing, putting to bed, and also songs and fairy tales, and taking them to the seaside for the day. So, I was prepared to look after the children. But then I realized there were some differences in nurturing (Elena, 71)

Older adults may derive their confidence in their abilities to perform a new challenging job from their expertise in a particular field of activity:

That area wasn't new to me, but the nature of work was absolutely different. I used to work in the district administration of education for many years before retirement, and now I took up a position of the secretary at the local council. Now I had to deal with all the resolutions of the council. However, I didn't find this absolutely new, as I had gained a lot of experience of working with documentation in the area of education, which is the most documented and regulated area at the municipal level. And I knew the people there. It seemed to me that I just changed the office room (Dana, 64)

Self-confidence is associated with an older person adhering to the quality standard for one's activity by seeking profound knowledge. An older person will look for reliable literature sources to ensure informed performance. Being confident in one's knowledge encourages an older person "stand your ground" and be outspoken when one needs to defend their beliefs:

Of course, some questions arise. Then I ask, ask the priest, but sometimes that's not enough, then I start thinking I should look somewhere else, because he has his ways of doing. Yes, I tell even to the priest. He is my son's age, so I feel I can tell him. I am not being rude, but I ask some questions as they arise. I read and see that we [the prayers group] are doing it in the correct way, because it says the same in the prayer book. It describes the way of this [religious ceremonial act]. I will show to him what it says (Ina, 73)

Believing in one's ability to manage a new activity encourages an older person to take up the responsibility to do everything on one's own not considering the possibility of getting help from others. Continuous performance in the long run shows the dynamics of confidence development. Participants reported getting more confidence in their abilities and strength to go on with more complex tasks in the process of doing. Initially feeling confident about one's ability to perform the activity, an older adult then works one's way through difficulties. Nele got that inspiration to develop her lodging business internationally after retirement by taking up the responsibility to do everything by herself after successful initial steps:

So, I tried it [going internationally with a lodging business]. It was a little awkward. I started from the website. I just opened it, had a look at the information provided, how to join it, how to fill in the form. But that showed me that you can start "from zero". And you can do everything. It gave me strength to go on. [...] at the beginning it was very difficult and frightening, and scary, and I felt somehow ashamed... until then there would be only Lithuanians coming, local people. And now the contingent changed absolutely, and there were people from almost all over the world. I don't know from which country there were no people coming. No, I didn't ask for any help from others. And they wouldn't have offered it to me because it's a great deal of work. So, I did everything myself: I went into "bookings", and I created my own website, uploaded my photographs, and wrote the descriptions, and thought of a name and other things. So all these things were discussed with my elderly mother because my daughter took interest in it. I tried to call the consultants to get some consultancy, and I

went to talk to them, Initially, it was really difficult, and complicated, and frightening, and embarrassing... (Nele, 62)

In some cases, an older person may perceive insufficiency of one's meta-learning competence. The older person's belief of being not competent enough to find out the meaning of some things independently, and therefore needing assistance makes an older person believe that a self-educating mode should be complemented with some organized learning:

I would like to take part in some gatherings with somebody invited to give a lecture, so that you can expand your world view. It's an age of fast progress, and there is a lot of new terminology, and new developments or events that we are not aware of. When you hear or read about it for the first time – you have no idea what it is. Let's say cybernetics or astronomy. When somebody tells you more about it – it's more interesting and different from reading about it on your own. There is plenty of health knowledge available on the internet, but one needs to know what to look for (Ula, 64)

Lacking personal efficacy and doubting their ability to master new skills may result in older adults limiting their activity or giving up an idea of taking up a new desirable activity:

I would like to learn the art of handicraft, but I don't trust my abilities any more (Ana, 70)

Conversely, an older person may be setting no particular goals to learn specific knowledge if they believe they have enough knowledge and skills for carrying out their immediate life tasks:

I don't see any need to acquire some specific knowledge, as long as I have enough knowledge to get along in my everyday life (Jonas, 64)

I can do everything with my mobile: calculate the bills, send a message, and I understand it all, and I don't need a computer (Gene, 77)

The individuality of the older learner may have an impact on the level of activeness in an older person's engagement with their social environment in pursuit of generativity. The accounts of participants reflected their different approaches to later life learning associated with personal development of retired individuals related to personal motivation and choice. Participants believed that pursuing personal development in later life is determined by personality - people whose spirit is enlightened keep pursuing learning among other meaningful things:

It must be related to an inner need. Those older people who didn't want to learn when they were children, are unlikely to feel like learning about things – they will be happy with their small worlds, and their households, and some material things. But when a person's spirit is enlightened, they always reach for something, they want to achieve something more in life. That makes life more interesting (Laima, 64)

The people with outgoing personality advocate the proactive approach: showing initiative and creating opportunities for activity by themselves. Having been very communicative in their career, they continue an active mode of engagement in post-retirement:

Your self-development is up to you. If you use your initiative, go and participate somewhere. You only have those opportunities that you create for yourself (Ula, 64)

Now you have a need to communicate, to see your ex-colleagues or friends, as you used to be with people all the time work-wise. It's interesting to find out what is happening in their lives (Jonas, 64)

I want to share my insights with other people – so that they would also think about meaningfulness (Svaja, 68)

Maintaining agency may be expressed in an older person's pursuit of informed participation in generativity-related environment as a member of the group engaging in collaboration with others on equal terms. Taking up the challenge of doing new things which are part of one's role in the collaborative activity may occur in a variety of situations: joining a new organization (civic engagement, interest group), working in groups (collaboration with members of a group), establishing one's role of importance in the group, organizing events for the family, neighbors or friends, or giving informed support to members of the group. An older person's engagement in a collective activity may require learning new skills to be able to perform an intended activity to contribute to the success of the group. An older person may take on commitment to the common goal when there is nobody else to perform the role:

There was an intricate solo song included in the program of the event, which was quite difficult for everybody to learn, because it had a sophisticated melody. So, I had to sing all that song alone. But I was not used to singing lyrics by heart – I had used to sing from notes in my choir singing practice. We would sing everything from notes, absolutely. So, I had to take this challenge, and I succeeded. You start feeling yourself so important, and you realize the significance of your role (Elena,71)

Being of shy nature, older people may be self-conscious with people they don't know or lack self-confidence in joining an established group and subconsciously seek help from outside to start something unfamiliar:

I didn't have the courage. I was thinking to myself: "How will I go there? I don't know those women". Luckily, when I got there, I met somebody I knew and he introduced me to them. I would probably have never dared to approach them. Now I am really happy I joined them (Ina, 73)

Those of the introvert personality enjoy being and doing things by oneself. Participants believed that some productive activities require individual efforts rather than collaboration with

others. The reserved approach of an older person is reflected in having inherent tolerance, showing respect to other people's ways of thinking:

I would like to say a quote by a prominent writer: „I am never bored being by myself’. I think I am also never bored. If you want to do something [important], you should be on your own, as you will not do much in other people’s company. [] I feel disinclined to offer my opinion. I prefer to listen to another person, and give my opinion if asked. Sometimes I just listen, and never argue. Pressing your point is useless as it may lead to argument or offense (Petras, 82)

Participants believed that having a reserved personality did not go with an active role in serving community. Approving other retired people's agency and activeness, they admitted that they wanted to be invited to join some activity rather than showing their own initiative:

I am happy about the women I know who are able to do and participate, and look for opportunities. They don't wait to be invited - they go and find things themselves. I see and admire those who “let their light shine before others”, but I can't imagine myself in such a role. I probably have a more reserved character: I can't initiate things myself – I wait for others to come to me, but nobody comes. Maybe, somebody will (Tania, 70)

Older adults may need inspiration for their agency from other older people as models of character they would like to follow - spiritual guidance from a close person who they would look up to:

She may not know that, but she is my spiritual guide. She has a lot of tolerance, which I lack myself. I am trying to learn a lot of things from her, but, of course, I am not able to learn everything. You can't learn to talk the way she does, and her writing skills are impressive. She practices yoga, which I can hardly do. A lot of things (Ruta, 73)

Age-related limitations (deteriorating physical health, diminishing energy levels, mental health problems, etc.) to perform generative activity may become a deterrent leading to reduced levels of participation. The different ways older adults perceive and recognize limitations result in differing patterns of older adults' engagement in learning. The very process of managing age-related inhibitors may be viewed as a dynamic interactive learning process in which the inhibitors serve a positive role as an impetus to learning. The learning nature of the process is represented by an older person learning how to transcend or accept the limitations posed by aging-related changes. *In vivo*: „*My health condition restricts me, and the pace is not like that before, but I don't want to do things anyhow*” (Ruta, 73). The process of coping through managing aging-related inhibitors to learning incorporates considering the (potential) negative impact on activity; perception of combination of ageing and environmental inhibitors; ageing-related socio-cultural limitations as incentive to create opportunities; efforts to prevent ageing-related cognitive decline.

The efforts to cope with limitations are represented by an older person 'not feeling their age' when engaging in their generative activities following the motto: “*you are as old as you feel yourself to be*”. When faced with the first effects of aging on one's abilities, older adults start considering the potential negative impact on their activity. The age inhibitors identified by participants included more

time needed for adequate performance, slower pace, ideas and thinking processes becoming slower, deteriorating eyesight or gradual deterioration of memory:

I have experienced that with myself – I used to do a lot of things very fast, but now they take much more time, and slower pace. Let's look at my eyesight – I never needed two pairs of glasses, but now I need those for putting a thread through the eye of the needle. I use one pair for television, and another for reading. So, these are the first signs of deterioration (Vaida, 67)

I can't go there anymore because I have difficulty walking in the dark, and my head feels "dizzy" (Ruta, 73)

Now there are plenty of books, but reading has become difficult at my age – my eyesight is not very good, so it makes problems (Petras, 82)

An older person may also expect „*inevitable limitations approaching*” based on experiences of old age limitations which they have observed in a previous generation of old people, usually their parents' generation:

My mother couldn't do anything by herself – I had to think for her. There has to be a person by you who thinks for you, helps, cooks, washes you, brushes your hair. That time comes, when you are not able. I wish in the future I at least know what medicine to use, how to treat myself, what to take... You are happy while you can take care of yourself, and don't become a burden for your children. So that you understand yourself, but that understanding will be 'going down', as your health condition has started 'going down'. There is no optimism left at your age (Vaida, 67)

Participants talked about physical, emotional or environmental effects of aging on their possibilities and abilities of learning. They reported the situations when subjectively assessed aging-related individual physical and emotional inhibitors to access learning opportunities, like physical and emotional health condition, or limited mobility were combined with environmental inhibitors. Environmental inhibitors may be perceived as limiting opportunities for more active participation in cultural activities, leisure, entertainment, or broader communication. Participants talked about physical obstacles preventing them from utilizing the opportunities available within some distance when their social environment was limited:

If I lived in a big town or city, where there is that university of the third age, I would attend lectures there. I would like psychology, human relationships, things like that. I would also go to the theatre or concerns. Now it's not available, because nobody takes me there, and I have no opportunity to go on my own (Tania, 70)

However, accepting the limited opportunities for socio-cultural participation may have a positive effect by encouraging older people to create opportunities for themselves and give preference

to productive activity vs leisure and entertainment. Older adults take up a generative activity in the area of their interests and expertise which is readily available:

My possibilities for going to the theatre are restricted, and I don't watch films on television, so this [voluntary work at the museum] becomes the only thing to be interested in (Ruta, 73)

I have such activities for myself that are sufficient for me at home: in spring and summer there is the flower garden and greenhouse; when it's hot – you do some handicraft, and in the morning, you do things around the house (Gene, 77)

Following some common knowledge and beliefs about how to prevent aging decline may stimulate older adults to engage in practices of cognitive activities like memorizing texts or doing crosswords. However, older adults may also adopt the position of doubting and not accepting the common beliefs about development of mental abilities. Their engagement with cognitive activities is based on maintaining interest rather than usefulness or “*appropriacy to an older person*”:

I love crosswords very much. I think you need to do something about your memory – so that it doesn't deteriorate. It happens that I forget a word, or a name, or something. For example, when I get tired from physical activity it's not acceptable to me to sit down and just relax. I can relax when I am doing a crossword at the same time (Ina, 73)

I always solve [crosswords], and always get the answers. Sometimes you get stuck with a term, or name. Then I keep thinking, and recover that word the following day, and solve it (Gene, 77)

My husband and I would do crosswords, and we would compete with each other. I did that, because it was interesting, but I didn't think about exercising my brain this way. I was interested and curious, and I didn't think about practical application (Tania, 70)

Determination to make efforts in a cognitive activity is combined with external motivation - there has to be a reason for an older adult to take up particular learning. Many respondents believed that learning languages in old age was good exercise for brain, however, they admitted not initiating the process of learning due to lack of practical application of language skills in their environment. Ina's resolving to take up learning a language was due to a perceived need for language skills:

She [son's girlfriend] is Polish, so I am trying to look at that language, what it is like. They say language learning is good exercise for brain in later life. Now there is also a reason for that. I think I will learn a little of this language (Ina, 73)

Preventing one's aging-related decline is seen as a consequence of an older person's engagement in learning for generativity-related activity rather than a goal on its own. Elena reported that her focus on keeping up the musical skills when singing in the ensemble may have had a preventive effect on her age-related memory deterioration:

I feel I maintain my musical skills. But I also feel that I am improving my memory. I think that I help my memory by learning texts – prevent it from “going down” (Elena, 71)

Lack of competence to perform complex tasks makes an older person accept limitations – an older person takes into account their limited abilities preventing performance of the activity at a higher quality standard. The process of self-imposing limitations incorporates adopting resigned acceptance as a strategy of accepting limitations; self-imposing limitations on the resources and scope of learning; self-imposing limitations due to perceived decrease in needs; disengagement caused by lack of will and “*spiritual laziness*”.

Resigned acceptance may be adopted as a strategy of accepting limitations on quality - older adults take up the activity within their competence. Self-imposing limitations, an older person avoids engaging in a more complex activity or restricting the volume, degree, scope of activity, which leads to restricting learning. An (excessive) complexity of the activity serves as a discouraging factor. Although acknowledging that mastery of some skills could make the process of a generative activity more efficient, older adults may decline some opportunities due to the complexity of learning:

I tried to learn to use some programs for editing photos, but it’s hard and difficult (Ruta, 73)

There are things organized in the community, but you need to have some understanding, some ideas how you can contribute, what you can bring there (Tania, 70)

Perceived lack of competence to perform a complex task at a subjectively set quality standard makes an older person self-impose limitations on their activity taking into account the effects of ageing on their performance. Due to aging-related issues, older people may have limited ability to use some forms or resources of learning:

I don’t watch television any more, although there are some really good programs. I can’t concentrate for a longer time, because of the heart rate, or blood pressure. I can’t read books, only for a short time. If I read in the evening, I can’t sleep at night, and the problems start. I listen to lectures on-line, but they are in Russian, and I don’t understand everything, and it’s a little difficult, and I can’t listen to them for long (Ruta, 73)

[a group of like-minded peers for socializing dissolved] *because one of them said it was difficult for her to walk, and she needed some silence. Another said it was too far for her to walk such a distance. The third woman went to live in another district. The age takes its toll, and thus this beautiful gathering of five women dissolved (Svaja, 68)*

You know, I stopped going to the library, because I can’t read anymore – I get a book to read and I fall asleep immediately. I also notice that I can’t remember what I have just read. What’s the point reading and exerting yourself? I used to read books, but I can’t do that anymore (Yolanda, 71)

Due to health reasons, older adults may reduce the scope of activities. Starting to feel the physical effects of age as “diminishing energy” may lead to considering cutting on the extent of

activity – „I don't have the energy to do everything properly, like before”. Older people may decide to give up some opportunities or reduce the degree of involvement by shifting from active involvement to a participant or viewer role in some of their generative activity:

I still participate, but now more as a listener or spectator, because the last two years have been difficult for me health-wise (Ruta, 73)

Self-imposing limitations is needs determined. Provided that there is no urgent need for a specific skill, older adults may give up the idea of learning it if the initial learning strategy fails:

I register with the doctor's on-line, but I don't pay bills [on-line]. Although, I tried once, but I didn't manage. Then I thought, never mind, I can go and pay, it's not far to go. Maybe I could do it, but it's not necessary. I have electronic banking, but I don't use anything. I am not even trying - just left it alone. It's not necessary, and that's it (Ina, 73)

When a person tells you, I can't write down everything, but I haven't learnt how to use the new telephone [for recording] yet. So, I make notes by hand into my notebook, or slips of paper (Ruta, 73)

Older people may lack motivation for creative approach to some things due to perceived decrease in needs, and pursuit of quiet life – feeling a need to do easy things. Lack of will may be identified as a barrier to activity by the older people themselves:

Your age weighs with you, and you don't have that flair anymore. Of course, my needs have decreased considerably, that's the meaning to retirement as detachment from many things. Now I feel good, because you don't want to rush, or do something beyond your physical abilities. You feel like quiet life, some reading, good friends, a beautiful environment, and that's enough - what else you may desire? (Vaida, 67)

I don't even want to do all those complicated things – I want to go through my life easily (Nele, 62)

It seems to me that nothing hinders me. It all depends only on my efforts, desire, time and health condition. I can still learn some things with the Internet that I don't understand to the full, except for what I really need. Your determination, will and interest are the drives (Ina, 73)

Some people have inherent restrictions of their activity in spite of having opportunities - it is sufficient to stay within the boundaries of their immediate environment – they limit their opportunities because of „spiritual laziness”:

Of course, you need a strong will – you need to make yourself do things. I don't think I used to lack will. You probably lack it more in your old age. You feel so heavy, and it's better to lie down and do some crosswords (Ina, 73)

And then there is the spiritual laziness – one has no global interest. They are happy with what they have - their own space, the space of their homes – that’s the way it is (Svaja, 68)

Self-imposing restrictions may be stimulated by experiencing emotional distress due to ‘borderline situations’ leading to a period of inactivity and decrease in the level of interaction with others which also results in diminishing self-efficacy. A “period of silence” is used by an older person to come to terms with a new stage in their life:

Now this period – they probably feel that I have a need to be on my own. I don’t need yet [being with other people]. Now I have to be alone and I sometimes feel how I push them aside. Then I apologize the next day - they understand it. I feel somehow unpredictable (Tania, 70)

Existential solitude is unavoidable. You want to be in that solitude until you feel it to a certain ‘line’. When you reach that line, that you feel you’ve had enough of that solitude, you meet like-minded people (Svaja, 68)

Temporary limitation of one’s abilities may be perceived as a result of emotional state. Tania acknowledged that a failing ability to memorize information may have been associated with her depressive emotional state:

I’m thinking about it, trying to memorize something, and I am reading books a lot, but my memory is decreasing. It may be due to the present depressive period in my life, that I can’t concentrate (Tania, 70)

Due to aging-related limitations, older adults develop adaptive strategies consistent with the perceived effects of ageing. The adaptive efficacy strategy of learning is developed aiming to adapt one’s performance of generative activities to the perceived age-related effects on their abilities. Older adults take up the activity within their competence based on subjective assessment of their needs and abilities and develop adaptive strategies consistent with the effects of ageing. Adapting to ageing reflects an older person’s efforts to maintain control over perceived aging-related decline. The process incorporates learning to adapt to effects of ageing; learning how to be in control of one’s health condition; developing the “ease of performance” strategy; altering well-established learning strategies to avoid potential negative effects.

Aiming to prevent or mitigate potential ageing-related decline, older adults learn how “to live in your old age” - to keep up their physical, affective and cognitive abilities. The learning experience involves an ability to identify the needs and develop strategies for physical and mental (cognitive and affective) health-wise learning. In the context of generativity, consistent with perceived ageing processes, older adults develop learning strategies directed towards adaptation to effects of ageing on their performance. The learning process involves independent learning activities on maintenance of the physical and mental health condition or engaging in organized practices. The process of learning starts on becoming aware of the effects of ageing on one’s productive activities. Envisioning potential effects of aging on their abilities, older people start preparing for living in their old age and learn to adapt to ageing caused changes:

Yes, I have started thinking hard [about living in old age]. I think a lot. I like this saying: “It won’t always be like that”. It means it will not always be that good or that bad. It may be better or worse. It’s more likely to be worse. You think about it with some fear when you talk to your peers: ‘What is it going to be like in the future?’, “Will you need to be cared for?”, or “You need to take a good care of your health to stay in good health longer”. It’s difficult to adapt to the challenges of ageing but I am doing my best (Elena, 71)

The strategies you adopt are related to you trying to improve your household in the way it requires less of your energy – the heating, the garden and everything. You are trying to get things ‘closer to your hand’. I keep thinking what it will be like then. Actually, you can’t prepare for everything (Jonas, 64)

Perceiving their health being of primary importance, older adults make efforts to learn how to be in control of their health condition. Participants reported making efforts to learn to monitor their health condition through change of lifestyle and natural ways of sustaining health. Motivation for learning new methods of health techniques is inspired by an intention to be able to help oneself and others:

Now I give a lot of attention to my health. I use all the natural methods, and now feel having more energy (Ruta, 73)

At weekends I always go to the meditation center for health reasons, where we also practice doing massage for each other. In the future I would like to learn the Theta healing method, which enables you to help yourself and others (Laima, 64)

When realizing that a certain age-related condition - deteriorating health or reduced energy levels prevent them from particular modes of learning practiced before, older adults develop adaptive strategies in response. Consistent with their changing condition, older adults may develop new ways of learning or alter a well-established learning strategy to avoid potential negative effects. The positive consequence of adaptive approach is associated with an older person developing the “ease of performance” strategy, which helps to remove the obstacles to learning caused by a fear of failure. The consequence of this process is development of strategies one feels comfortable with:

I am a little afraid to go on longer journeys because of my health, but I go everywhere in Lithuania if offered an opportunity (Ina, 73)

Now every summer, my son takes me somewhere, because I am not able to travel with groups. So, I always read before going – my son checks on the Internet if a particular place is worthwhile seeing, but I also read about it a lot (Ruta, 73)

When I read, I don’t make notes – I rely on my memory. I would write my articles by hand – as I have only one eye, I don’t want to lose it (Petras, 82)

Due to physical and cognitive processes slowing, an older person may feel a need for developing a sustainable routine, which allows an older person to monitor the health condition:

Shortage of time prevents [doing tasks on time]. You know – an older person’s thinking, summarizing does not come immediately, and you take much more time. Also, my health does not allow to work longer than an hour, or an hour and a half – and that’s enough for the day. If I sit at the computer one and a half hours, it’s a lot for a day. Then I wait for another day until I can work again. You must wait and „slow down” (Ruta, 73)

Some health-related conditions, which cause some restrictions on mobility, may encourage learning some relevant skills which otherwise would have been not taken up. An older person with limited mobility may develop compensatory strategies of learning “dictated by limited mobility”:

I have learnt knitting crochet after retirement. Actually, I did it when undergoing chemotherapy, when I couldn’t go anywhere because I couldn’t stand on my feet. So, I learnt that somehow – I had wanted to long before (Ina, 73)

That loneliness, the silence, those dark months, especially in winter and autumn are difficult, but then in spring I recover. I read books, as there isn’t much communication. Because it is cold for some people, or it’s difficult to come, or icy roads for people at such age, and thus communication disrupts (Gene, 77)

My mother (aged 94) reads more than me, because I have a lot of things to do, whereas she is restricted walking-wise. So, she reads even much more now (Nele, 62)

When engaging in new activities and complex tasks related to generative pursuits, older adults adhere to accustomed methods of learning guided by their self-reliance strategies. Self-reliance strategy builds on their common sense, efficient learning beliefs, and meta-learning skills. The process of adherence to an accustomed style of learning built on self-reliance incorporates relying on meta-learning skills; exercising the practical mode of learning; invoking long-adopted learning strategies; modelling a dynamic learning strategy which encompasses initial assistance from other people followed by independent practicing; utilizing the opportunities to access readily available resources; making use of well-established community relationships.

In the situations of taking up a new activity or faced with complex tasks, self-directed older learners use methods which comply with their common sense, their beliefs about efficient learning and are based on practice. In participants’ reports these situations were associated with solving emotional problems, conducting one’s retirement business, or dealing with complex tasks in one’s everyday activities. Elements of self-directed learning were present in maintenance of one’s immediate environment, performing life tasks to be self-reliant living in the country, individual self-care, or development of IT skills for functioning in life - to facilitate communication, or on-line access to services. The mode of learning adopted by an older person depends on both the level of independence and the baseline of skills. Some older adults may have both good meta-learning skills, and confidence in their ability to improve their performance independently:

I just opened the website, looked at the information how to subscribe and complete the forms (Nele, 62)

I have a manual of photography and learn from it (Ruta, 73)

I have learnt everything by myself. This artistic gift may have been inherited and running in the family (Gene, 77)

Believing that the desire for knowledge comes with personality development through one's life-time interest in literature, participants identified recourse to reading as a major accustomed method of learning in post-retirement. Their engagement in self-directed learning for informed generativity was associated with extensive reading of „reliable worthwhile publications”, which were “truthful and not politically tainted”. There was a variety of uses of literature in participants' generativity-related learning including improving one's voluntary teaching practice from a teacher's book, learning from a manual to master a new skill, reading relevant literature for participation in enlightenment or religious activities, etc. Informed generativity pursuit in the form of self-care may be associated with recourse to reading literature to develop a coping strategy when faced with difficulties, or maintain one's health in the aging-related circumstances. Participants demonstrated ability to identify and utilize resources for getting information for their pursuits recognizing that the choice of learning sources was limited to their personal resources and those freely available in their community environment:

I have a considerable “library” of my own, as I used to buy books as long as I could afford them. But now you can find a lot of materials in the town library, which is very active. So, I look, and find in guidebooks, directories, magazines, or books (Ruta, 73)

However, in the respect of practical skills, older people may not be so confident about independent learning from written resources, and doubt their ability to learn practical things through reading, or studying theory. Therefore, in the case of practical skills development, older people give preference to experiential learning strategy – learning through initially observing other people perform a particular activity and later practicing the skill independently:

I have always wanted to see and learn how to weave. It's not the same as learning from a book. When you see how it works in real life. When you have seen it, you can take a rush or a twig and try to do it at home for yourself (Ula, 64)

Skills come with practice – one must do it. Theory is not enough – you also need practical knowledge. It's not like you read the traffic rules and you know them. It's different when you deal with metal work or something similar – you will not be able to do that - you need some specific knowledge and skills (Jonas, 64)

Learning through observation was a common strategy used by participants: visiting similar places, looking at model performance and imitating, or doing research of the opportunities in the environment to improve one's activity:

You go and see how other people arrange their gardens and decorate homes (Ula, 64)

I had to look through a number of examples before I arrived at my own ideas. You visit one museum, then another, attend seminars, and then you see what you can do in your situation (Ruta, 73)

Yes, I carried out some research – visited all the places, looked at the working hours, transport and access, catering possibilities (Nele, 62)

I read something relevant. I also use those materials as models for imitation – where else can you learn? (Ruta, 73)

Copying models from literature or other sources may be invoked as a common readily available long-adopted learning strategy, which comprises finding a model to use for performing a new type of tasks, and using one's creativity to approach the task to fulfil its function or to suit one's intentions. When learning from other people's experience, older adults follow their subjective understanding of the standard of performance, and thus develop a new mode of doing the activity in a customized way rather than imitating a model:

All the five of us got into the car and went to another town to meet a local prayer group. We had arranged for the visit with their parish priest, asking to see the way they do it. We looked at their way, but we did not imitate them exactly. We kept our mode of performing, because we can choose the prayers and the psalms freely, and they had some restrictions there which were not acceptable to us (Ina, 73)

Guided by an assumption that when taking up a new activity, better performance is achieved by working on practical skills, most participants exercised the practical mode of learning by invoking well established methods of practice. Acknowledging a need to be self-sufficient, older adults direct their learning efforts towards learning practical skills which are obtained through doing:

Now there are some practical things, when you need to repair, or make something. If you don't know about it, you have to ask your friends and learn from them (Jonas, 64)

Of course, they [other participants] could do everything, but I couldn't. I would keep saying that we needed practice, but they didn't agree, because some of them had been in that church choir for 30 years. I told them that I didn't know anything, and got the support from the organist, the choir leader; and he organized practice (Ina, 73)

Adhering to one's style of learning may become a common strategy when an older person chooses not to take up the learning activity which does not correspond to their accustomed mode of learning. When trying out new things for learning, older people assess the value of the new experience, and don't accept the methods which have proved not to be suitable for them:

She gives me that literature, but it doesn't work out for me. I tried once to listen to that lecture, but it was not for me. Firstly, you need to sit and listen, which I can't do – I don't like it this way. Secondly, I think it is brainwashing (Nele, 62)

The dynamics of learning through practicing the activity may initially involve accepting help from others to deal with new things, but developing the skills independently later to be able to handle the tasks independently:

I have got that Facebook, and I have been using it quite often since I created it. My sister's son is in America, so I communicated with him by Skype. Then my daughter went for an internship to Japan for half a year, and we also communicated via Skype. When they installed it and showed to me, it went well afterwards (Brone, 64)

I would like to improve my knowledge how to use a computer, because I don't know everything yet, so I need to ask my neighbors for help (Ina, 73)

In their community environment, older adults adhere to their well-established strategies of using the readily available opportunities to get more knowledge from professionals and experts, or through community organized educational events. Older adults may intentionally seek informal learning opportunities by taking advantage of the events in which “*you can get what is useful for you*”. Participants engaged in reflection about their learning taking place in their activity identifying that some learning was of an informal nature, when one acquired knowledge through engagement in a particular activity. The educational impact is reinforced by an older person taking their participation seriously by doing some preparation for activities through upgrading their knowledge on the subject or further reflection and assessment of the value of the event. The opportunities to access resources are facilitated by well-established personal relationships developed prior to retirement. Participation in community activities and events makes an older person feel part of society, not „*thrown overboard*”, and „*get out of the circle*” of their personal problems:

The librarian invites me to events. I used to teach her boys. She also reserves some new books. And I get an invitation to come (Gene, 77)

But also one of my former pupils is a professional photographer – he gives me some advice (Ruta, 73)

You can get something useful for you from every situation - things that teach you (Dana, 64)

When you know that you will have to go to an event, you get some read about that (Petras, 82)

I can confirm that one learns throughout the life. You don't need to go to that UTA [University of the Third Age]. It's not available here. [] But you read a book, you learn about something, you take part in events, which also gives you some knowledge, and you also see and find out something. So, every activity and that participation gives you some knowledge, and it may even change you – your attitude (Ina, 73)

3.3 Discussion

In this chapter of the study I will discuss the grounded theory of older adults' self-directed learning in informed generativity in relation to existing theories of self-directed learning and will discuss the major findings in the context of the existing literature on later life learning. I will start by linking the current model with the most prominent theoretical models of self-directed learning. Then, situating the grounded theory in the context of existing theories, I will discuss the key findings of the present study - *positioning later life self-development in generativity, constructing learning in later life changes-affected circumstances, reconciling past and present, and sustaining self-efficacy in learning in aging-restricted circumstances*. The findings extend the self-directed learning theory by providing a better understanding of how older adults make meaning of their later life learning in generativity. The core category in this grounded theory of self-directed learning of older adults is *self-development in informed generativity*. Older adults engage in self-directed learning to inform their generative performance. This context determines the ecology of building the self-directed learning process which highlights the importance of integrating pre-retirement experience with post-retirement changing needs and sustained self-efficacy in learning. Positioning later life developmental goals in generativity (guiding and caring for the next generation) is a developmental task related with psychosocial growth in later life (Erikson), socio-cultural aspects, diversity of contextual influences (the outcomes of individual development over the life-span).

Links with theories of self-directed learning

Based on the findings of empirical research, the study provides a grounded theory, which presents an interactive model of self-directed learning reflecting the interrelation between generativity and later life learning. Previous studies have presented self-directed learning in a linear model (Tough, 1971, 1979; Knowles, 1975), or interactive multi-dimensional model (Spear & Mocker, 1984; Garrison, 1997; Hiemstra & Brockett, 2012). Tough (1971, 1979) defined self-directed learning as self-teaching in the form of learning projects undertaken by adults. Tough's model (1971) emphasizes a planned nature and linear progression of the learner actions in the process of learning. In contrast to Tough's model, the findings of the present study demonstrate that self-directed learning occurs as a continuous interactive process. Similar to Tough's (1971) model, the present theory of self-directed learning shows that older adults make deliberate efforts to learn and their assessment of their achievements is based on acquisition of knowledge, skill or making change as outcomes of learning. Knowles' (1975) model defines the process of learning as consecutive steps the learner performs. The findings of the present study indicate presence of the elements identified by Knowles, including the learner commitment to learn, identifying the resources, implementing strategies and assessing the achievements. However, in contrast to Knowles' model, in the present study, they were not arranged in a pre-planned linear progression of steps, but occurred within the dynamics of a complex continuum of learning. The participants in the present study described their learning as being part of their lifestyle rather than individual projects lasting for a defined period of time. The findings of the present study are congruent with Spear and Mocker's (1984) model consisting of three components: learning opportunities in the environment, past or new knowledge, and the learner's actions. Spear and Mocker (1984) argue that the individual circumstances-determined situation provides incentives and resources, and organizes a person's self-directed learning. In the present study, generativity-based context played an important role in structuring participants learning through

providing the impetus, opportunities and resources for learning. The individual circumstances comprised individual aging-related limitations, availability of resources and social environment. Other circumstances were related to macro environments and included status change, ageist attitudes, and intergenerational issues in society. Integrating past learning experience with the current learning needs was identified as a key process in self-directed learning of older adults. However, dissimilar to Spear and Mocker's (1984) model, this research revealed older learners placing greater importance on intrinsic motivation to learn determined by pursuit of quality performance. Garrison (1997) suggested a conceptual model which integrates contextual (self-management), cognitive (self-monitoring) and conative (motivational) dimensions. Similar to Garrison's model, the present study also revealed the motivational attributes of the learning process including constructing personal meaning for learning outcomes, and development of strategies based on prior knowledge and experience. Different from Garrison's model, which is built on a collaborative constructivist view and explains self-directed learning of adults in an educational context, the current theory analyzes older adults' learning in independent learning contexts. Therefore, the dimensions of control defined as self-management, and self-monitoring as the learner taking responsibility in a collaborative learning environment, have no links with the current theory of older adults self-learning, where the learning process is not linked to external management of tasks and activities. The current theory aligns with Hiemstra and Brockett's (2012) interpretation of self-directed learning consisting of the process, context and learner dimensions. The framework I constructed allows tracing the complex interactions between different components of the self-directed learning process and experiences, generativity elements present in the older learners' life and aging-related circumstances. The framework reflects the dynamics of the elements of the three dimensions – the self-directed learning process, the generativity-based learning context and the ageing-affected learner. The variables identified within the three constructs emerged as determinant factors of the participants' learning experiences, and are encompassed in the framework in sets of causal/conditional relationships. This study shows that motivation for learning is embedded in the factors behind generative commitment and action. Older adults engage in self-directed learning when they realize a need to learn for generativity purposes – generative commitment and action require competence development for informed performance. Generativity-related environment shapes contextual conditions for the process of learning through the opportunities that older adults take advantage of through generative commitment and action.

The scholarship developed in the first decade of the 21st century (Roberson, 2003; Roberson & Merriam, 2005; Valente, 2005; Song & Hill, 2007; Rager, 2009) proposed conceptual models for understanding self-directed learning in specific contexts. The aforementioned studies are of considerable significance to the analysis of the present study due to the fact that they are based on research involving later life learners, and view the life stage as context for learning. The findings of the present study align with the theory of the self-directed learning process of older, rural adults by Roberson (2003) and Roberson and Merriam (2005). Their model includes an external or internal incentive to learn, interest in the topic or activity, accessing resources, systematic attention and time, making adjustments to fine-tune the learning, and resolution or continued pursuit of the learning activity. The similarity with the present study lies in the emphasis on late-life development in the process of learning. The present study demonstrates that the consequence of this process is older people becoming aware of their learning efforts, in terms of their success and outcomes. The measures of performance are developed on the basis of a subjectively imposed level of proficiency required in the activity. Different from Roberson and Merriam's (2005) model, where the role of self-directed

learning is embedded in late life adjustments (Roberson, 2003), the present research demonstrated that the role of later life learning is associated with older adults' pursuit of informed generativity, which also provides authentic learning environment. The interactive process model of self-directed learning proposed by Valente (2005) was developed in the context of older adults' health care. The model reflects self-directed learning as a continuous learner-initiated cyclical process, which includes acquiring and assessing information, choosing treatment(s), monitoring and reflecting on the result of treatment interventions, and managing adjustments in their life style and treatment. A health event is identified as an initial point of starting the process. The self-directed learning process revealed in the present study identifies generative engagement acting as an impetus for self-directed learning. Similar to Valente's model, the current model also incorporates the components of selection, adjustment, and assessment of achievement by the older learner, and use of external resources in a collaborative mode. In the model of Self-directed Health Care the older learner moves forward into the cycle of learning and then moves back to collaborate with their health care professional. The current model of self-directed learning in informed generativity suggests that older learners rely on their immediate social environment as a resource. However, different from the Self-directed learning in Health Care, the findings of the present study support the position that collaborative elements are present not outside, but within the learning cycle, and become part of the learning process through reciprocation in intergenerational relations.

Song and Hill (2007) proposed a Conceptual Model for Understanding SDL in Online Environments. The model encompasses three dimensions – personal attributes, processes and context. Personal attributes include the learners' motivation, resource use and robust cognitive strategies. The processes refer to autonomous learning which is manifested in the processes of planning, monitoring and evaluating. The model presents the interaction between the person and the process elements. The context is focused on the dynamic interrelation between the environmental factors (resources, structure, the nature of tasks and support elements) and the learner self-direction. The similarity with the present study lies in the three-dimensional composition of the model encompassing the person, process and context (Brockett & Hiemstra, 1991), and in the dynamics of interrelation between the elements. However, different from Song and Hill's (2007) model, which identifies instructor feedback and peer collaboration as essential elements of the learning context, in the current model the context of generativity is associated with self-efficacy, and self-educating mode which has no links with external instruction.

Rager (2009) presents an interactive integrative model of self-directed learning that introduces emotional context in the crisis situation. The model was developed on the basis of research on self-directed learning of people facing a medical crisis. The model consists of five components: the learner, the context, content, process, and learning. Each component of the process contributes an emotional layer to the self-directed learning experience mediated through the individual learner. It can be inferred from the current model of learning in generativity that there are emotions inherent in older adults engaging in learning to counter ageist attitudes, and coping with ageing-related restrictions. The findings of the present study also support Rager's (2009) argument that emotional weight of the learner's past and present experience impacts the learning process. Participants in this study reported their efforts to reconcile their past and present, and their confidence in their self-directed learning and self-efficacy were associated with their experiences of success in the past, and their realized need to position themselves and earn respect in their generative pursuits.

Discussion of the key findings in the context of the contemporary literature

The empirical research allowed me to conceptualize key aspects of self-directed learning in the context of generativity. In this section of the study I will analyze the key findings of the present research in the context of contemporary theory and research of later life learning. The relevant aspects of theories of aging and psychosocial development will be referred to as related to the context of self-directed learning. I will start the discussion of the key findings of the present study from the issue of the nature of self-directed learning in later life. Viewed from the perspective of learning as a lifelong human process (Jarvis, 2004), learning in later life may be defined as a complex narrative process integrating contextual, social, behavioural phenomena (Pfahl, 2011). The present study presents older adults' self-directed learning as a continuous self-development which occurs across later life as a dynamic interplay of processes which older adults become involved in through their performance in informed generativity. Roberson's study (2003) also showed that self-directed learning is an integral process in the lives of older adults. Lamdin (1997) related self-directed learning to the need and interest arising from the developmental stage of older adulthood. My research indicates that self-directed learning is embedded in older adults' pursuit of generativity as a developmental task of older adulthood stage. When contrasting the findings of the present study with those of a similar study of older adults' self-directed learning by Roberson (2003), there is a significant difference from the findings of the present study in respect of the nature of self-directed learning. The key finding of Roberson's (2004) study on older adults was the importance of self-directed learning in making necessary adjustments in later life. It was found that age-related change could motivate older adults to learn how to continue living an active life. Roberson (2003) argues that late life adjustments (to time, family and loss) are a primary incentive for self-directed learning. In the present study, the findings indicated that the participants related their learning with continued productive activity and personal development. However, participants did not explicitly associate their learning activities with adjustment to ageing. The findings of my research demonstrate that learning for self-care in later life is viewed by older adults as part of their generativity and is associated with their development of the ways to fit in the social world as a generative retired person to „leave a legacy of the self for future generations" (McAdams and de St. Aubin, 1992).

Key finding 1: Older adults position their later life self-development in generativity.

The present study demonstrates continuity of learning as inherent part of personal development. Perception of learning as integral part of one's life and a meaningful worthwhile activity leading to self-fulfilment (Sears, 1989) has also been identified by later life learning researchers (Hodkinson et al., 2008; Russell, 2008; Tam, 2013; Borrero & Kruger, 2015; Narushima et al., 2018). The findings of the study align with the findings of Russell's (2007) research demonstrating that motivation for learning in later life is based on realizing its worth as providing opportunity for active participation in one's lifeworld. Older people set themselves the goals of growth and development (Russell, 2008), and express commitment to developing personal potential (Scott, 2006). An improved sense of self (Narushima et al., 2017), discovering new aspects of one's personality, and moving towards identifying one's new self as a retired individual (Hodkinson et al., 2008), authenticating the self in learning (Russell, 2008) have been identified as outcomes of later life learning. The participants' accounts of their perception of learning in later life indicated their acceptance of the process of learning as moving towards realization of personal "*later-life maturity*".

This finding supports the position expressed by Tornstam (2011) that aging provides “potential to mature into a new outlook on and understanding of life”. Continued pursuit of self-development in later life in educational research is associated with an older person seeking to maintain an integrity of the self (Narushima, 2005; Russell, 2008; Urrutia et al., 2009; Piercy et al., 2011). The concept of integrity (Butler, 1963) is linked with Erikson’s theory of generativity defining it as a developmental task in old age. The present study shows that generativity provides motivation and content for later life learning in the way older persons consider their growth in the perspective of younger generations. Roberson (2003) in his study of older adult learning also found that generative experience promotes growth and personal transformation, and generative activities promote self-directed learning in later life. There are extensive empirical studies which demonstrate that older adults maintain high levels of purpose associating it with preservation of values, traditions and culture (Pinquart, 2002), and being of value to the world (Borrero & Kruger, 2015).

The notion of “leaving a legacy” was identified in the present study as a significant aspect of learning through generativity. Considering one’s ability to leave something behind as personalized generativity (Sabir, 2015) comes from the “desire for symbolic immortality” (Kotre, 1984). Inner desire as a source of generativity may be manifested by an individual’s „desire for symbolic immortality” or „a need to be needed” (McAdams & de St.Aubin, 1992), desire to engage in such giving to other people, next generation (purposive and positive interaction with an individual or individuals in a younger generation (McAdams & de St.Aubin,1992). Older people’s learning is closely related to finding ways of how to make a significant contribution to their environment lasting beyond one’s life (Russel, 2007). The present study extends understanding of the interrelation between a person’s legacy pursuit and learning by demonstrating how the learning process incorporates formulation of the legacy pursuit, developing the potential ways of “leaving a legacy”, and setting a model of living in old age. Older adults engage in the process of reflective learning by questioning the value of their expertise in the contemporary world, and updating their knowledge and skills. In their expression of generativity older adults learn of ways to communicate their concern to succeeding generations. The drive for active engagement stimulates older adults’ interest in the current developments related to the life of contemporary generations of young people. Other studies (Stergios & Carruthers, 2002; Kruse & Schmitt, 2012) also identified getting insight into the life of contemporary generations of young people as a motivational theme of learning through generative activity. Older adults in Roberson’s (2003) study were learning about how to be involved in the life of younger generations in their families – generative action motivated them to utilize self-directed learning to help meet the needs of the family.

The conflicting attitudes towards the status and role of older people in their environment act as a strong motivator for older adults’ continued learning to demonstrate competence in the areas of their expertise as a way to counter devaluation. The process of competence demonstration before ageist stereotypes represents older adults’ resistance to ageism. Other studies (Purdie & Boulton-Lewis, 2003; Narushima, 2004; Russell, 2007; Kruse & Schmitt, 2012) also showed that older people engage in learning to confront ageist attitudes. Complexity of a generative activity is tolerated and accepted as long as an older person can see its potential impact on one’s improved performance. In Russell’s study (2005) older learners rose to the challenge of “difficult learning” motivated by belief in personal growth. In the present study, commitment to learning motivated learning some skills and knowledge which was part of a generative activity. The process of learning incorporates taking up the challenge by introducing novelty into the activity, pursuing creativity and variety, and realizing a

need for more extensive knowledge for improving performance. In later life, an older adult moves towards redefinition of the self and relationships to others (Tornstam, 2011). The need for belongingness, mutual and moral obligation and value in relationships stimulates older adults to take responsibility for sharing and participating (Russel, 2007). The findings of the present study showed that improving social performance is a primary goal which older adults set for their personal development in view of its significance to generative performance. Achieving harmony in relationships with younger generations is considered a necessary condition for their generative concerns to be accepted and appreciated in their environment.

Key finding 2: Through engagement in informed generativity, older adults construct authentic learning in later life changes-affected circumstances.

The dimension of ageing is in the center of the biocultural context to later life learning. Learning behavior is determined by age (Friebe, Schmidt-Hertha, 2012), and an older adult's environment can shape the learning pattern (Roberson & Merriam, 2005). Spear and Mocker (1984) found that self-directed learners construct their learning by selecting from the limited alternatives in their environment. Engagement in generativity gives an older person the feeling of authenticity and worthwhileness in the learning situation - older adults perceive their learning as very "natural" and motivated by a need to improve their performance. The experiences of older adults constructing learning in this study are consistent with the findings of Russell (2008), who identified that older adults place emphasis on authenticity of learning activities and the meaning the activity has in the context of a whole life. Faced with aging-related limitations, older people create new opportunities for themselves (Russel, 2007). Worthwhileness of activity is closely linked with the notion of time. The notion of limited time emphasized in literature on older adult learning (Erikson et al., 1986, Russel, 2007) was also identified by the participants in this study as an important factor influencing setting the goals and choice of learning strategies, that would enable personal growth within the time left. Realization of limited time results in older people adopting a selective approach to learning strategies and activities. Similar to findings of other studies (Russell, 2008; Scott, 2006), the present study uncovered a highly selective manner of learning. The category of selecting may be viewed in the perspective of the Selective Optimization with Compensation (SOC) theory of behavioral development, which posits that selection strategy may be adopted by individuals to manage their lives when limited resources (time, energy, and capacity) form opportunities and constraints (Baltes & Smith, 2004). Selection processes are focused on new age-related developmental goals and allow identifying the areas the individual chooses to maintain. Age-related deficiencies require loss-based selection - choices about the allocation of limited resources deciding on which goals and outcomes to undertake (p. 134). In the present study, identification of the category of selecting allows to better understand the dynamics of learning processes that individuals engage in when pursuing their goals in their aging-restricted environment. Older adults adopt a practical approach to learning, which is expressed in the reactive mode of learning. The study confirms that self-directed learning is perceived by older adults as contributing to dealing with arising life needs, and developing ability to help oneself and others. The practical perspective of learning was also identified by Roberson (2003) in older adults learning to cope with negative aspects of their lives.

Commitment to quality of performance and assessment of achievements have been identified as essential elements in older adults building their learning. Quality performance is directly linked

with older adults' engagement in informed generativity. Guided by a responsible attitude to doing their job in an informed manner, older people direct their learning towards improvement of performance. The commitment to quality performance is embedded in expectations of approval and avoidance of potential criticism, which leads to continuous assessment of the level of performance. The process of assessment incorporates recognizing the efforts of action, developing measures for assessment, evaluating the outcomes, and setting the goals for improvement. In the process of assessment, older adults undertake reflection on the meaning and the level of the learning outcomes achieved. Cognitive reflection (Pfahl, 2012), and assessment (Lamdin & Fugate, 1997), and reflective and observational attitude to the learning environment increasing with older age (Truluck & Courtenay, 1999) was reported in the literature. The learning process encompasses reflective thinking and searching for the meaning in the context of later life when the older learner undergoes a process of change (Mezirow, 1991), or identity modification (Hodkinson et al., 2008). Older adults may measure their performance by identifying external verification of their success, ability to perform independently, change of status, an improved self, further development of one's abilities, effectiveness of performance and sufficiency of efforts. Schmidt-Hertha's study (2013) showed that other older people within the social environment are chosen as a benchmark to evaluate ones' own learning activities. The findings of the current study did not support this assertion as participants associated measuring their achievement with either external verification or observation of positive change in themselves. In their learning older adults place reliance on social environment for use of resources. The process incorporates accepting support and encouragement from close people, making use of communication by placing the value on the content, and maintaining personal relationships for emotional development. This assertion is consistent with the importance of social connectedness reported in the literature (Borrero & Kruger, 2015). Other authors report that other people are involved in older adults' process of learning (Candy, 1991; Lamdin, 1997; Roberson, 2003), highlight building informal social support networks with other long-term learners (Narushima et al., 2017), and knowledgeable people with some expertise on specific issues (Schugurensky & Myers, 2008).

Key finding 3: In their informed generativity-based self-directed learning, older adults reconcile past and present by integrating pre-retirement learning experience with post-retirement learning needs.

In the present study, reconciling past and present emerged as an essential category characterizing older adults' learning through generativity. It represented the participants' position of considering their learning in the context of their whole life (Russell, 2008). In the context of generativity, it can be further elaborated in the perspective of the continuity theory as both the construct of generativity and ageing are related to the concepts of continuity and change. The continuity theory (Atchley, 1989) proposes the concept of continuity as an older person's adaptive strategy to deal with aging-related changes by maintaining their middle age experiences-based patterns of activity (Atchley, 2006). The element of transferring professionalism in the present study is discussed furthering understanding of how older adults integrate and further develop their pre-retirement career competences by transferring them to the generativity context. A combination of continuity and change is present in the very process of transition to retirement (Hodkinson et al., 2008). For older learners it also becomes a strategy for integrating one's past experiences into the present learning situation. In the literature on later life learning, there is evidence of older adults

reflecting on their previous knowledge and experience (Wolf, 2009; Boulton-Lewis, 2010), and reviewing their life by reproducing memories in their work (Narushima et al., 2017). Transfer of professionalism in one's later life learning is associated with the concept of continuity of identity (Stergios & Carruthers, 2002; Borrero & Kruger, 2015). Stergios & Carruthers (2002) found that continuity of professional identity motivates older people to continue engagement in an area of activity related to their pre-retirement profession to make use of the expertise acquired through professional career. Borrero and Kruger's study (2015) of retired professional women showed that the consistency of older professionals' identities was expressed in their enduring interests in pre-retirement activities - participants continued to foster the key aspects of their identities during retirement from their professional careers.

The concept of older adults invoking enduring strategies in their self-directed learning can also be viewed in the perspective of the continuity theory (Atchley, 1989), which posits that older adults apply long-practiced patterns of activity. In terms of self-directed learning, these patterns include adoption of "affordable methods" developed in pre-retirement career. Older adults build their learning strategies on the learning skills developed through professional development, and on accustomed resources. The findings of this study further explore how learning experiences are situated in relation to a person's earlier learning history. Some previous studies have also identified a unity of the past and present in the process of learning (Hodkinson et al., 2008) as interplay of new and old information as the organizing factor (Spear & Mocker, 1984), or as a component in the variably structured learning (Roberson, 2003). The findings of this study support the position that older adults rely on well-practiced methods of learning, and previous educational experiences related to personal achievement may encourage learning (Withnall, 2006).

Reconciliation between the past and present in learning is reflected in older adults trying to integrate their past beliefs with common contemporary understanding of things – developing a strategy of acceptance with reservation. This concept relates to the dimensions of adaptation and change, when an older person has to develop a response to the changing world. Consideration of others' views and accepting tolerance becomes part of older adults' social learning (Bandura, 1986). The *in vivo* code "*living in today's world the way it is*" combines some implicit meanings and assumptions about an older person's learning of present-day developments, and learning how to express one's attitudes and concerns in an informed manner. Older adults learning through reciprocity with succeeding generations in their pursuit of informed generativity is a key finding in this study. Russel (2007) proposed the concept of mutuality in the study of generativity concerns. She suggested that generative concerns may imply mutuality between generations in a learning context where a younger generation provides something that contributes to the quality of life of their parents or grandparents (p. 380). Mutuality may be related to older people looking at the present from the past and the future, although being "acutely aware that the door to the future would not open for them" (Russel, 2007, p. 380). Older adults seek meaning in their lives looking to "a sense of communality" - beyond individual needs searching for "mutualness and value in their lifeworld" (Russell, 2007). This study confirms that older people want "to be placed in authentic and life-affirming spaces" rather than being patronized (Russell, 2007, p. 380). Seeking meaningful and relevant relationships, older people replace themselves from marginalized spaces into "spaces where relationships and discourses allow them to be included, not excluded" (Russel, 2007, p. 380) - "*I want to live in today's world. I don't want to be a retired woman going gaga*". Learning from the succeeding generation represents the learning continuum in generational perspective as a lifelong process. Learning through reciprocity

with a younger generation encompasses acceptance of change, encouragement for adoption of contemporary ideas, and readiness to learn from a younger generation. Participants reported deriving inspiration for their learning from reciprocity with a more senior generation. The process involves observation of model behavior from an older person, encouragement for learning to care in an enabling mode, and as an impetus for seeking knowledge. The literature on intergenerational relationships provides some research on the links with previous generations showing that generative activity towards a more senior generation may benefit both generations involved and help achieve integrity (Villar & Serrat, 2014).

Key finding 4: Self-direction in learning through generativity is built on sustaining self-efficacy in aging-restricted circumstances

Guided by informed generativity beliefs and concerns, older adults engage in the process of sustaining their self-efficacy in learning in aging-restricted circumstances. Bandura (1982) defines self-efficacy as a personal belief how well one can “execute courses of action required to deal with prospective situations” (p. 122). The interview data showed that older adults’ self-directed learning is strongly connected with their identification of themselves as ageing individuals and their response to the aging-related changes. Older adults agency is based on their beliefs of personal efficacy which motivate and guide their actions, and also impact adaptation and change (Bandura, 2000, p. 75). The perceived self-efficacy provides greater opportunities to project one’s autonomous learning and self-initiate the process of learning based on self-directedness. The present study furthers understanding of what constitutes the process of sustaining self-efficacy in aging-restricted circumstances by identifying the relevant categories: maintaining confidence in one’s abilities to be self-directed in learning, coping with aging-related inhibitors, self-imposing limitations, developing adaptive strategies consistent with the perceived effects of ageing, and adhering to an accustomed style of learning. Self-efficacy regarding one’s learning abilities and strategies, and perception of learning as contributing to dealing with arising life needs have also been recognized by other studies as factors facilitating later life learning. Friebe and Schmidt-Hertha (2013) study showed a link between perceived control of action, attitudes about one’s own behavior and later-life learning. Purdie and Boulton-Lewis (2003) found that self-efficacy and strengths in learning are related to acceptance of ageing related limitations, and recognizing that learning is still possible. “Lifetime patterns and trends” is the source from which the learner’s notion of one’s competence originates from; and then it transforms into efficacious identity with „the pursuit experienced by the learner as compelling and personally right” (Scott, 2006 p. 11). Wolf (1998) suggested that maintaining agency in later life is associated with the role of learning as enhancing one’s ability to lead an independent life, i.e. being self-sufficient. The concept of agency of an older individual is central to the „Selective optimization with compensation” (SOC) theory (Baltes, 1991; Baltes & Baltes 1990). In this model the individual’s agency is exercised in combination to adaptive capacity and encompasses the cognitive aspects of self-development and self-management. Agency is reflected in enhancing self-reliance in the face of potential ageing deficiency, adaptive control of one’s life as an ageing individual - adaptive efficacy, and attaining a higher level of functioning (Baltes, 1991). The selective optimization with compensation principle proposed by Baltes and Baltes (1990) maintains that in order to maintain functioning older people adapt to age-related changes by selecting the domains of functioning in which they are still competent. In our study older adults engaged in those generativity areas where

they could maintain and further develop their competencies. Confidence in one's abilities manifested itself in a variety of generative environments where participants reported doing activities on their own: looking after children (babysitting for young children), child-minding as a paid activity, voluntary activity or working with a disabled person. In the perspective of the selective optimization with compensation principle, compensation processes are focused on maintenance of functions when faced with loss of previous resources and allow the older person to use the reserve and external resources to make up for restricted abilities. The optimization processes (Baltes & Baltes, 1990) were demonstrated by participants being focused on the use of available resources and their learning abilities. Participants reported self-reliance regarding their learning abilities and strategies, which was based on their previous learning achievements and assessment of their current efforts to improve generative performance. Ownership of one's achievement comes as a consequence of sustained self-efficacy process, which demonstrates older adults' abilities to manage their learning in continuous modes. Other studies identified that learning generates a stronger sense of self (Roberson, 2003), self-esteem and confidence (Narushima et al., 2017). The findings of this study further explore how generative commitment to action leads to maintaining confidence in one's abilities based on self-efficacy beliefs. Research indicates that meta-learning competence and expertise in particular fields acquired during the years of professional development allows older adults to be self-directed in their learning. The element of confidence is discussed furthering understanding of what constitutes the process of maintaining confidence in one's abilities to learn in later life. The findings suggest that it incorporates competence development towards more complex tasks in the process of doing; finding resources with which to complement lack of competence; acknowledgement of and taking into account one's individuality, and engaging in collaboration with others on equal terms. The research indicates that perceived lack of personal efficacy may result in looking for resources with which to complement a self-educating mode, or limiting one's activity. The learning process involves coping with perceived aging-related inhibitors by learning how to transcend or accept the limitations posed by aging-related changes. The present study contributes to understanding how aging-related inhibitors affect older adults' self-efficacy in learning. It reveals that resigned acceptance may be adopted as a strategy of accepting limitations on quality performance, when older adults take up the activity within their competence, but self-impose limitations on the resources and scope of learning. The perception of inhibitors may enable some forms of learning, but prevent others (Hodkinson et al., 2008). Russell's (2005) study also showed that later-life learners do not dwell on present deficiencies, but adopt the growth and change attitude. Other researchers also proposed that aging constraints may be overcome by learning, which helps to "expand and broaden their mental space" (Narushima et al., 2017).

The concept of self-directed learning as adapting to ageing-related changes has been widely explored in literature. Adaptive control of one's ageing body and mind represents an individual's response to aging related changes as biological context. Later life development also encompasses adaptation to physical limitations and social loss - physical and social change. Adapting to ageing is expressed in an older adult's learning efforts to maintain control and mitigate the perceived aging-related decline. Due to the dynamics of both the person and the environment, adaptation may take different forms. The individual adaptation form and the extent are dependent on the individual abilities to adapt in response to the changing demands of the environment. Roberson's (2003) study indicated that older adults become "masters of adaptation" when they utilize self-directed learning to adjust to change. Withnall's (2006) study showed that most older people had progressive attitudes

towards change and accepted personal responsibility for coping. Schmidt-Hertha (2013) found that internal impulses for older adults to learn are linked to individual dispositions to follow their personal interests or worries about losing cognitive skills. In Russell's study (2005) later-life learners adapted to ageing-related changes to maintain active participation in society. Hodkinson et al. (2008) found that learning is embodied in the very retirement process as adaptation to retirement-related changes, and is triggered by the need to deal with personal and situational changes. Looking for efficient ways to delay the process of cognitive decline is identified by older adults as primary concern in the perspective of maintaining intellectual and mental fitness as a necessary condition for informed generativity. However, the findings of the present study show that older adults' pragmatic approach reflected in learning things of immediate use, and reinforced by beliefs about the meaning of engagement into a particular activity, and selective investment of energy (Atchley, 1989) attitudes may become the reasons to postpone working on cognitive skills "until a need arises". In the present study the participants viewed aging changes as limiting their engagement in learning, and developed adaptive strategies by changing their learning patterns. Viewed from the perspective of the selective optimization with compensation theory, self-directed learning is linked to the concept of adaptation related to reaching higher levels of functioning (Baltes & Baltes, 1990). When applied to later life, this integrative paradigm of the three elements shows the dynamics between physical, mental and social aspects. Adaptation is a strategy for an older individual to take control over the aging processes employing the knowledge and experience acquired in the life course as a resource to compensate for aging-related losses. Although this model describes the process of adaptation through an individual's life, it is particularly significant for exploration of later life learning in terms of providing a framework which combines physical, mental and social influences. The influences of micro and macro environments on the learning processes of older adults include the three layers as defined by Baltes and Smith (2004): age-graded contexts of developmental change, historical contexts reflected in technological advances or health behavior, and individual-idiosyncratic events. In the present study, the environmental influences were embedded in the generativity environment and individual circumstances. The context of generativity provides space for a dynamic interplay of the ageing-related social and individual influences including ageist attitudes, intergenerational issues, availability of resources, and immediate social environment, personal beliefs and values, previous learning experience, the degree of involvement, the degree of support in the social environment, health condition and other idiosyncratic events which determine the degree of control older people have over their learning behavior.

Summing-up. The most significant contribution of the present study is in the extension of the self-directed learning theory by introducing generativity as context in the process of self-directed learning in later life. In self-directed learning theory and research, the concept of self-directed learning has not been considered in relation to the concept of generativity as context to later life learning. The synergy of the two concepts is displayed in the grounded theory of self-directed later life learning in informed generativity. The results of this research demonstrated that informed generativity as a context provides sustainability and authenticity to the self-directed learning process in later life. Self-directed learning is a complex process which unfolds during the years of retirement in the context of older persons' involvement in generativity-based activities. The relationship between self-directed learning and generativity is disclosed in the following way: older adults self-direct their learning towards improvement of their performance in generativity through achievement of better understanding of what they need for informed generativity. They construct their participation in

generativity-based world on the basis of the experiences and outcomes of self-directed learning. This conceptual model incorporates the three dimensions of self-directed learning – self-direction as personal attribute, process and context identified by previous studies (Candy, 1991; Hiemstra & Brockett, 2012). The structural dimensions of the grounded theory can be described in three aspects: (1) generativity is a structural condition affecting the nature of self-directed learning in later life; (2) engagement in generative activity provides a supporting holistic context for self-directed learning in later life including learning impetus, development and application of contextualized learning, opportunities for utilization of past experience, and relevant individual and social resources; (3) action strategies for realization of self-directed learning are influenced by ageing-related changes and older adults' individual circumstances as intervening conditions. In their generativity, older adults attempt to connect change and continuity. The study demonstrated how the consequences of self-directed learning may sustain older adults' continued learning and participation in generativity. The major findings of the study can be viewed and explained in the perspective of the continuity theory of ageing and the Selective Optimization with Compensation theory of behavioral development.

CONCLUSIONS

1. Theoretical analysis of self-directed learning presents considerable conceptual challenges due to the variety of models and contexts this term has been used and construed in educational theory. Viewed from the constructivist perspective, self-directed learning is conceptualized as intentional and conscious self-learning which takes place in particular social contexts. The complexity of this multidimensional adult learning concept can be revealed through its fundamental integral dimensions including the learner self-directedness, the interactive process of learning and the learning context. The three dimensions are interrelated and exist in an integrated dynamic relationship. The process of learning is based on the learner autonomy and integrates an active role of the learner, and use and development of the competences needed to manage independent learning in a specific context. The learning choices made by the learner with regard to learning goals, strategies and assessment of the learning outcomes are determined by both personal characteristics and the contextual factors. The older adult personal characteristics include prior learning experience and formation of efficacious identity, which facilitate the learning process through integration of the past experience. The context of self-directed learning in older adulthood is characterized by two aspects: (1) the developmental tasks in older adulthood as a life-stage; (2) later-life changes affected environment. The self-directed learning process encompasses the dimensions of life-stage needs related motivation, maintaining control over learning in aging-restricted circumstances, development of coping strategies, and self-efficacy in learning developed through extensive prior learning experience.
2. The most significant contribution of the present study is in the extension of the self-directed learning theory by introducing generativity as context in the process of self-directed learning in later life. Generativity provides an authentic context for sustained self-directed later life learning both in terms of meaningfulness and purposefulness of learning activities. Informed generativity is conducive to self-directed learning in later life and acts as both the motivator and consequence of learning. Self-directed learning occurs as a process of self-development in pursuit of self-actualization continued throughout the life stage of later adulthood. Older adults continue their personal growth by engaging in self-directed learning motivated by pursuit of informed generativity as a way of self-actualization in later life. The findings of the grounded theory of self-directed learning in informed generativity in later life show that the relationship of informed generativity and self-directed learning is expressed in learning being integrated in a dynamic interplay with generativity-based contexts which include generative concern, commitment, action and personal narration. In the contexts of generativity, learning is associated with participation in intergenerational relationships where older adults make self-directed learning efforts to achieve informed generative participation. By responding to the challenge of the complexity of generativity, older adults pursue further development of their abilities (cognitive and physical power and skills) for informed generative commitment and action. Generativity encompasses a wide range of beliefs and behaviors through which older individuals express their agency in their environments. Viewed from generativity perspective, self-directed learning is a complex process which unfolds during the years of retirement in the context of older persons' involvement in generativity-based activities. Personal development in later life is inherent part of engagement in

generativity. Learning is embedded in this engagement in the way it facilitates achievement of generativity-related goals through informed participation. The dynamic relationship between self-directed learning and generativity is disclosed in the following aspects: (1) older adults self-direct their learning towards improvement of their performance in generativity; (2) self-directed learning results in achievement of better understanding of what an older learner needs for informed generativity; (3) generativity-related contexts provide sustainability and authenticity to the self-directed learning process in later life; (4) older adults construct their participation in generativity on the basis of the experiences and outcomes of self-directed learning. The factors affecting learning in generativity-based contexts include generative engagement, previously gained competence and social environment influences.

3. Self-directed learning of older adults is characterized by later-life changes affected environment. Ageing-influenced circumstances affect further personal development undertaken by older adults by their engagement in self-directed learning. The older learner is the central element characterized by the qualities which enable the process of self-directed learning in specific contexts. Learning in later life is interconnected with social processes in terms of older individuals positioning themselves in the social relationships, and this positioning being determined by the learners' age. Later life as a life-stage is marked by the older person's self-concept development based on realization of one's identity change towards becoming a knowledgeable retired individual who cares about the succeeding generations. The nature of the later life learning process is represented by these dimensions: (1) the learning motivation being based on older learner developmental tasks and needs; (2) the interconnection between learning and maintaining agency in later life changes-affected circumstances, (3) the multidimensionality and integrated nature of the learning process. The learning motivation is based on older learners' developmental tasks and needs and includes search for meaning, adjustment to aging-related changes, remaining in control of one's life, personal growth, social stimulation, and instrumental reasons. The dimension of interconnection between learning and maintaining agency is associated with empowerment and emancipation as primary roles of learning, improvement of the social status and self-efficacy. The multidimensionality and integrated nature of the learning process is reflected by prevalence of informal mode of learning, the relationship between active aging and informal learning, merging different types of learning, development of a unique model of learning in response to the specific conditions of the older learner's life, learning as becoming - an integrated system with physical, practical, emotional and cognitive elements, learning as a transformative process and situated social learning. The consequences of later life learning include the dimensions of the life review and integrity, and the individual and social nature of the learning outcomes. When faced with ageing-related issues, older adults visualize a trajectory of their future lives incorporating their generative self-care concerns associated with a need to maintain self-reliance and self-sufficiency.
4. In generativity-based contexts, older adults exercise self-reliance in utilizing learning strategies and resources when realizing a need to learn in line with later life changes. Self-reliance with regard to learning abilities and strategies is based on previous learning achievements and assessment of the current efforts to improve generative performance. In their self-directed learning, older adults apply long-practiced patterns of learning and invoke enduring strategies,

which reflects older adults' attempts to connect change and continuity, and may be viewed in the perspective of the continuity theory (Atchley, 1989). The integration of the strategies of experiential independent learning, and the meta-learning competence acquired through pre-retirement professional development can also be viewed and explained in the perspective of the Selective Optimization with Compensation theory of behavioral development (Baltes & Baltes, 1991). Older adults combine the processes of selection, optimization and compensation, which allows an older individual to utilize the available resources affected by later-life circumstances. The self-directed learning process is determined by the ageing individuals' environment which is reflected in the reactive, collaborative and contextual nature of learning.

5. The self-directed learning of older adults in generativity-based contexts is defined as continued autodidactic self-learning aimed at development of competences needed for sustaining informed generativity in later life. The grounded theory explains the process of how the phenomenon of continuous self-development in informed generativity is manifested in older adults' self-directed learning. The structural dimensions of the grounded theory of self-directed learning in generativity-based contexts can be described in three aspects: (1) generativity is a structural condition affecting the nature of self-directed learning in later life; (2) engagement in generativity provides a supporting holistic context for self-directed learning in later life including learning impetus, development and application of contextualized learning, opportunities for utilization of past experience, and relevant individual and social resources; (3) the action strategies for realization of self-directed learning are influenced by ageing-related changes and older adults' individual circumstances as intervening conditions. Creating sustained authentic learning in informed generativity is central to the process of self-directed learning in later life. In their self-directed learning, older adults are engaged in four interdependent processes: (1) positioning self-development in generativity; (2) constructing authentic learning opportunities to inform generativity in later life changes-affected circumstances; (3) reconciling past and present - integrating pre-retirement learning experience with post-retirement learning needs; (4) sustaining self-efficacy in learning in aging-restricted circumstances. An older adult moves through the four phases depending on the changes in the individual circumstances and the contexts of generativity. The process of self-directed learning is influenced by micro and macro conditions. The critical macro conditions that determine the nature of self-directed learning include the issues of ageism, intergenerational power issues, and availability of resources. The micro environments are associated with personal beliefs and values, previous learning experience, the degree of involvement, the degree of support in the social environment, health condition and other ageing-related individual circumstances and idiosyncratic events which determine the degree of control older people have over their learning behaviour. Older adults develop unique self-directed learning patterns in the context of dynamic interplay between objective aging-related circumstances and subjective perception of those circumstances. The dimensional variability of self-directed learning includes differences in the level of engagement with learning experience, individual perception of one's learning abilities, subjective evaluation of the opportunities provided by the immediate social environment, and the degree of proactiveness in utilizing the learning opportunities. In the context of the personal narration, older adults engage in the process of positioning their self-development in generativity. Seeking to establish and maintain one's status as a knowledgeable generative person, an older adult sets the goals of learning in keeping

pace with contemporary developments, preparing to “leave a legacy”, in demonstrating one’s competence to challenge devaluation, and working on improving one’s social performance in informed generative concern and action. In the context of commitment to generative action, older adults go through the process of creating opportunities for their own learning in later life changes-affected circumstances. The process involves finding meaningful learning contexts, selecting worthwhile activities, adopting practicable strategies of performing and assessing performance, and relying on the resources of their social environment. In the context of generative commitment and action, self-directed learning is expressed in older adults’ attempts to integrate their past beliefs with common contemporary understanding of things. The process of integration involves transferring the competences gained during one’s career to post-retirement generative activities, invoking enduring strategies from the past learning history, developing a strategy of acceptance of new trends with reservation, and engaging in learning through reciprocity with succeeding and preceding generations. In the context of personal narration, identifying themselves with pre-retirement careers, older adults move towards identifying themselves as generative retired individuals. In this learning context, they are faced with the need to reconcile the discontinuity and continuity in one’s expertise. The consequence of this process is further development of meta-learning competence enhancing efficient learning. Guided by one’s informed generativity beliefs and concerns, older adults engage in the process of sustaining their self-efficacy in learning in aging-restricted circumstances. Perceived self-efficacy is an older person’s belief in their capability to exercise control over their activities. The process of sustaining self-efficacy in aging-restricted circumstances incorporates maintaining confidence in one’s abilities to be self-directed in learning, coping with aging-related inhibitors, self-imposing limitations, developing adaptive strategies consistent with the perceived effects of ageing, and adhering to an accustomed style of learning built on self-reliance. Ownership of one’s achievement comes as a consequence of sustained self-efficacy process, which demonstrates older adults’ abilities to manage their learning in continuous modes.

RECOMMENDATIONS

For policy:

- Older adults’ participation in generativity-related activities at the community level may be stimulated through creating contexts and structures for facilitating older adult learning in generativity-based environments. Engagement in generativity as a developmental task in older adulthood may enhance older adult self-development, adaptability and empowerment.
- Development of a modern policy of ageing and learning should place an emphasis on creating preconditions for older people to achieve self-actualization through learning in later life. The educational policy should be orientated towards creating effective mechanisms to support older adults in maintaining their self-directed learning capacity in pursuit of the continuity of personality development.

For practice:

- The design of educational programmes for older adults should focus on increasing self-directedness of older learners taking into account aging-restricted circumstances. Incorporation of generativity-based environments may facilitate the development of self-directed learning competences by providing sustainable authentic learning environments.
- The organizers of generativity-related activities at the community level should develop comprehensive schemes incorporating the elements of older adults' competence development through engagement in generativity which would enhance both older adults' informed contribution and personal growth.

For further research:

- Further study of later life learning in the context of generativity requires a more interdisciplinary approach linking research on older adults' generative performance with the characteristics of the learning process. This approach may allow better understanding of the dynamics of learning processes that individuals engage in when pursuing their generative goals in aging-restricted situations.
- A more comprehensive view of generativity as a self-directed learning context may be achieved by exploring how the present model can be applied in different socio-cultural settings and identifying the influences of socio-cultural factors.
- Further research on older adults' self-directed learning in generativity context may benefit from qualitative inquiry aiming at a more extensive investigation of each component identified in the present grounded theory in relation to specific generativity-related micro and macro conditions.
- To advance understanding of the phenomenon of self-directed learning in generativity, further empirical quantitative measurement may be undertaken on a wider social context for acquiring quantitative grounding for the dimensions identified in the present study.

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APPENDICES

Appendix 1: Literature review of later life learning in informal context

	Author(s), year	Theoretical framework	Methodology (type, participants)	Findings	Themes, subthemes
1	Boulton-Lewis et al. (2017)	A constant comparative method	Qualitative Semi-structured interview; 39 older adults in Hong Kong and 40 older adults in Australia	Research focus: interrelation between later life learning and loss. Findings: Three main kinds of loss as life changes were identified as motivators or having a negative effect on learning. Loss was a catalyst for engaging in learning. Learning as a preventive to maintain health. Loss of a job or a partner as a stimulus to engage in learning. The type of learning was directly related to loss. Desire to learn depends on individual motivation levels.	Loss and learning Loss of health Loss of job Loss of partner
2	Carragher and Golding (2015)	Grounded theory	Mixed methods: 2 questionnaire surveys (297 participants) and 5 focus groups Majority of participants men aged 50+	Focus of study: older men's learning experiences, perceived readiness to engage in learning and motivation, older men's attitudes to learning and learning behaviour. Findings: men's sheds produce the environment for hands-on learning and have a positive impact on life transitions. This learning environment provides space for personal conversations utilized as a resource for active engagement in constructing behaviours and identities for later life.	Favourable learning environment Hands-on learning Constructing behaviours and identities Sense of belonging
3	Carragher and Golding (2016)		Mixed methods: 2 questionnaire surveys (297 participants) and 5 focus groups Majority of participants men aged 50+	Focus of study: attitudes and learning behaviours of older men participating in Men's sheds in Ireland. Findings: Men's sheds are conducive to men's learning; as sites of informal learning this learning environment encourages sharing skills, knowledge, wisdom; active engagement in constructing masculine behaviours and identities in later life; confirms the importance of meaningful activities; participants' eagerness to carry on learning.	Conducive learning environment Sharing skills, knowledge, wisdom Construction of behaviour and identity in later life
4	Chi-hung Ng, (2008)	Grounded theory Socio-cultural perspective	Qualitative In-depth interview; 10 older adults aged 57 to 88	Research focus: older adult learning of computer technology. Development of a model of evolving motivation from "anxious novices" into "motivated experts". Findings: Social support derived from various social contexts helps older adults make sense of their learning and develop lasting interest in learning (computing). Social support for learning may originate from different social agents, the most important support coming from family members and friends. When they begin	Learning problems and difficulties Evolving motivation Learning supports Collaboration Personal and social benefits

				<p>learning, older adults may experience worries and difficulties.</p> <p>Older adults' motivation may evolve in the process of learning - after engaging in learning, older people show strong motivation in mastering the new skills. Collaboration is a major process contributing to successful learning. The benefits of learning encompass personal (a sense of efficacy and achievement) and social development (friendship).</p>	
5	Creech and Hallam (2015)	Critical geragogy Thematic analysis	<p>Qualitative Observation of music sessions and reflective interviews with 13 facilitators of musical activities of older people</p> <p>Over 100 older adults aged 50 to 92</p>	<p>Research focus: Older adult informal learning in community settings: informal learning facilitator's perspective.</p> <p>Findings: Musical groups may provide informal learning contexts where facilitators may empower their participants through positive interpersonal climate, valuing participation, using participants' prior experiences as a resource, and guiding towards creative expression and progression.</p> <p>Music is a specific context which may facilitate creative, meaningful, reflective, collaborative, and purposeful learning experiences.</p>	<p>Prior experience</p> <p>Vulnerability</p> <p>Ownership of learning</p> <p>Interpersonal dynamics</p> <p>Learning when relaxed</p> <p>Enjoyment</p> <p>Valuing participation</p>
6	Golding (2011)	Thematic analysis	<p>Mixed methods field studies</p> <p>On-site surveys and semi-structured focus group interviews</p> <p>Participants: men aged 50+ in Australia</p>	<p>Research focus: Older men's informal learning in community settings in Australia.</p> <p>Findings: Effective older men's learning in community settings is social, local, practical, situated, and in groups. Learning is embedded in informal sharing of hands-on skills from older men's work lives.</p> <p>Other factors contributing to learning: enhancement of communication and well-being.</p>	<p>Situated social learning</p> <p>Well-being and communication</p> <p>Learning benefits</p>
7	Hodkinson et al. (2008)	The life history	<p>Qualitative Minimally structured interviews</p> <p>Sample of 19 people aged 50 to 80 from a large-scale longitudinal study in the UK</p>	<p>Research focus: the meaning and significance of learning in later life in the process of retirement and transition into the third age.</p> <p>Findings: Learning viewed as a process of becoming. The retirement experiences were situated in relation to a person's earlier life. Established the relationships between learning and identity and agency in retired persons' lives. Learning is triggered or facilitated by changes "in a person's horizons for learning" - the possibilities for learning. Learning is an integral part of the retirement process, and is embedded in the "interrelationships between the changing person and his or her</p>	<p>Learning as becoming</p> <p>Impact of earlier life</p> <p>Horizons for learning</p> <p>Possibilities in the learning culture</p> <p>Interrelationship between changing person and</p>

				<p>learning situation". Learning through retirement has physical, practical, emotional and cognitive elements. The possibilities for learning are influenced by the learning culture, the person's health, dispositions, and resources. The retirement process becomes a process of learning due to the need to adapt to retirement-related changes: new situations, new opportunities, new constraints. Learning is also triggered by adapting to declining health and changed family circumstances. Learning as becoming process involves self-reflection, identity modification or sustaining identity in new circumstances. Learning as becoming can be linear and developmental, or occur as a series of disconnected multiple experiences.</p>	<p>learning situation Influence of the person's health, dispositions, and resources Adaptation to retirement-related changes (new situations, opportunities, constraints) Self-reflection Identity modification Sustaining identity</p>
8	MacKean and Abbott-Chapman (2011)	Grounded theory	Qualitative; in-depth semi-structured interview with 25 people aged over 65	<p>Research focus: informal learning through leisure activities. Findings: confirm the learning component in older peoples' leisure activities. "Leisure activities" provide opportunities to learn skills appropriate to the person's time of life and empower people to help themselves. Learning contributes to self-assessed well-being. Older adults use knowledge and skills to cope with transitions, learn strategies for adaptation to the life phase. Communal mode of learning provides opportunities for using and sharing skills and experience, mutual assistance and support, self-efficacy and resilience.</p>	<p>Empowerment Learning skills for the life phase Well-being Use of lifetime knowledge Coping with transitions Adaptation strategies Building self-efficacy</p>
9	Malec (2012)	Symbolic interactionist perspective	Qualitative biographical research; in-depth interview with 10 Polish senior immigrants in Sweden	<p>Research focus: process of learning to be old across the life-course. Findings: A three-part model to conceptualize learning to be old in three contexts: context of youth; context of external representations; context of experience as interdependent, normative and dynamic contexts. Learning as construction of meaning in later life involves reflective learning and perspective transformation by older persons, and availability of the outcomes of</p>	<p>Learning to be old Reflective learning Perspective transformation Learning from experience</p>

				lifetime learning from experience to younger people.	
10	Merriam and Mohamad (2000)	Constant comparative method	Qualitative approach interview 19 older adults aged 60 to 83 in Malaysia	<p>Research focus: understanding how cultural values shape learning in older adulthood.</p> <p>Findings: Older adult learning in Malaysia is non-formal and experiential, communal, religious or spiritual in orientation. Experiential orientation: the content of learning is embedded in everyday lives of older persons. The nature of the learning is congruent with past and present life circumstances. Learning through experience and sometimes in combination with non-formal programs or informal activities that occur within the context of people's lives. Communal orientation: in the context of a community; learning considered a social activity for interacting with others; engagement in learning motivated by a desire to benefit others and for improving community (through being good role models, through volunteering, and through engaging in social-action agendas); learning embedded in social interaction (families or the larger community).</p> <p>The learning is guided by being open to new ideas, being tolerant of other races and religions, helping others, and leading a good life. The role older adults play as mentors, advisers, and wise elders inspires them to continue learning. Being elderly and experienced brought with them a favored position and status in their family and community.</p>	Later life learning orientations Experiential learning Communal learning Religious or spiritual learning
11	Moon (2008)	Constant comparative method Developmental-constructivist approach Transformative learning theory	Qualitative approach in-depth, semi-structured interviews with 9 bereaved older adults aged 71-82 in Georgia (the USA).	<p>Research focus: older adults' transformative learning through bereavement in late life.</p> <p>Findings: Bereaved older adults experienced transformation toward a greater consciousness of death issues, reprioritization of goals and activities, and re-evaluation of intra-/interpersonal relationships. Components of the process of transformation: distress, reflection, change in perspectives, new behaviours.</p> <p>Transformative learning is influenced by relevant prior learning, dwindling social network and proximity to personal mortality (life-cycle issues). Perspective transformation can occur in late life bereavement. Transformative learning is a fluid and oscillatory process. Transformative</p>	Transformation process Greater consciousness of death issues Reprioritization of goals Reevaluation of relationships Distress Reflection Change in perspectives

				learning is shaped by biographical and life stage developmental contexts.	New behaviours Prior learning Dwindling social network Proximity to personal mortality
12	Narushima et al. (2017)	Hermeneutic phenomenological approach Inductive thematic analysis	Qualitative semi-structured interviews 10 older learners aged 70 to 90 in Canada	Focus of study: Lived experiences of lifelong learning of vulnerable older adults. Findings: The meanings of learning found in the five existential aspects included: assurance for the dissonant body and mind; a circle of camaraderie; a balance between physical and mental spaces; integration of past, present, and future; and beyond knowledge and skills. Participants' continuous practice of learning works as a therapeutic self-help mechanism to counterbalance changes in their life worlds. Continued learning may be driven by older persons' "frustration, anxiety, and fear about their changing physical abilities. In the learning situation older adults "build informal social support networks with other long-term learners". In the face of physical constraints, learning helps older adults "expand and broaden their mental space". Older adults are growth oriented acknowledging their limited future. Learning helps older adults review their life by reproducing and preserving some memories in their work. The outcomes of later life learning include improved knowledge and skills, acquisition and maintenance of positive attitudes and "an improved sense of self". Learning generates self-esteem and confidence. <i>I learn, therefore I am</i> is the manifestation of the essential meaning of lifelong learning for older adults in the study. Learning in later life as a worthwhile activity.	Existential aspects of learning Integration of past, present, and future; Learning outcomes beyond knowledge and skills Learning as a therapeutic self-help mechanism
13	Purdie and Boulton-Lewis (2003)	Constant comparative method	Mixed methods Semi-structured interview 17 older adults aged 70 to 82 in Australia Survey of 160 older adults	Focus of study: learning needs, barriers to learning, and self-efficacy to overcome the barriers. Findings: learning needs included technical skills and knowledge, health issues, leisure and entertainment, and life issues. Barriers to learning consisted of physical problems, cognitive factors, "self" matters, and social factors. Most of these were	Learning needs Barriers to learning Self-efficacy

				<p>attributed to aging. Largest number of barriers was identified with regard to cognitive and “self” matters</p> <p>Self-efficacy and strengths in learning: acceptance of ageing related limitations, positive thinking; being open to new things, and recognizing that learning is still possible.</p> <p>Quantitative research findings: the most important needs were associated with transportation, health, and safety. The strongest barriers to learning were those associated with physical disabilities; the weakest barriers were those associated with other people.</p>	
14	Russel (2008) Russell (2005)	hermeneutic phenomenological method	Qualitative 19 later-life computer learners aged 63–86 in Australia (the study presented in the article is based on Russell, H. (2005). The lived experience of later life computer learners (PhD dissertation)	<p>Focus: time, later life, and learning as related constructs.</p> <p>Findings: Older adults learning is characterized by: selective engagement in learning; continually seeking to maintain the integrity of the self; using knowledge of the self and the whole life to reflect and to stand back; putting learning into the context of a whole life; heightened sense of time; search for the meaning in life. Characteristics of the later-life learners included adapting to the aging changes; rejecting the notion of withdrawal from society; rising to the challenge of difficult learning and choosing growth; using reflection to reconfigure and reconstitute time, to maintaining integrity and a sense of self; negotiating one’s place in a changing environment, seeking for continuity, inclusion, and integrity in relations with others, preference of autonomy to dependence; authenticating the self in learning. Older learners reposition themselves in relation to goals to enable growth and development within the time left to them.</p>	<p>Generative nature of learning</p> <p>Search for meaningful pursuits</p> <p>Selective choice of learning</p> <p>Maintaining integrity</p> <p>Learning put in the context of the whole life</p> <p>Heightened sense of time</p> <p>Adapting to changes</p> <p>Taking up difficult learning</p> <p>Growth in later life</p> <p>Reflection</p> <p>Authentic self</p>
15	Russell (2007)	Hermeneutic phenomenological method	Qualitative 19 later-life computer learners aged 63–86 in Australia (the study presented in the article is based on Russell, H. (2005). The lived experience of later life computer learners (PhD dissertation)	<p>Focus of study: learning experiences of later life computer learners.</p> <p>Findings: Belief in the worth of learning in later life as providing opportunity for participation in one’s lifeworld. The ontological and existential outcomes of learning include growth and development (corporeality), integrity and continuity (temporality), positioning and agency (spaciality) and mutualness and value (relationality). Growth and development are associated with maturity, wisdom, pragmatics, reflection, creating new opportunities for themselves. Integrity and</p>	<p>Participation in one’s life world</p> <p>Living life authentically</p> <p>Pursuit of the existential self</p> <p>Growth and development</p>

				continuity are associated with maintaining integrity and repositioning oneself in relation to goals of continued growth. Positioning and agency are associated with achieving the desired outcomes in terms of one's position and enacting changes. Mutualness and value (relationality) are associated with seeking meaning and communality	Integrity and continuity Positioning and agency Mutualness and value
16	Russell (2011)	Hermeneutic phenomenological method	Qualitative Interview 16 older adults; aged from mid-70s to early-90s (ICT learners) (interviewed twice over a period of seven years)	Focus of study: the lived experiences of ICT learners. Findings: the existential concept of time was at the core of the learning experiences of later life ICT learners. Later life is a unique time period, which provides an opportunity for significant growth and development with an increasing focus on time and meaning. Two significant aspects: the person's awareness of the limited number of the years left and the longer period after retirement.	Uniqueness of the time period Opportunity for growth and development
17	Schmidt-Hertha (2013)	Qualitative content analysis; Reconstructive social research	Qualitative First study: 42 case studies of people aged 55+ (55 to 99) in post-employment Personal interviews Second study: 32 interviews with older adults aged 60+ in post-employment	Research focus: motives and opportunities of informal older adult learning. Findings: The fundamental factors facilitating learning include positive self-perceptions, self-efficacy beliefs and evaluation of expectancies of the social environment. There is a link between perceived control of action, attitudes about one's own behaviour and later-life learning. The motivation to engage in learning is related to older adults' self-perception and the way of life. Motivation (for learning technology): not to miss opportunities or advantages of digital media; to participate in and be informed of the younger generations' lives in one's family; generating deeper intergenerational relationships; to avoid exclusion; to take advantage of new possibilities for enriching lives. Impulses to learn can be internal and external. Internal: related to individual dispositions and experiences. External: social networks and the social environment can stimulate learning related to tasks and challenges of everyday life. The older adult engagement in a conscious learning process is stimulated by the availability of learning resources, the belief in one's learning ability, self-efficacy and other resources. The significance of a wider social network: learning is related to interactions within wider social networks; other	Significance, preservation, and development of competencies; Positive self-perceptions, Self-efficacy beliefs Evaluation of expectancies of the social environment Internal and external impulses to learning Intergenerational learning and exchange Learning habits and strategies

				<p>older people within the social environment are chosen as a benchmark to evaluate ones' own learning activities and overall cognitive abilities and thus serve as a source of motivation and challenge. The types of self-perception: "makers", "helpers", and the ones "driven by circumstances" A heuristic model of motives and opportunities and their relation to informal learning of older adults developed.</p>	Wider social network
18	Tam (2016)		<p>Mixed methods: survey of 519 participants, ranging in age from 55 to 75+; in-depth, face-to-face interviews with older adults: 18 participants in organized learning and 21 non-participants in Hong Kong</p>	<p>Focus of study: older adults' experiences and views on learning in later life, including the meaning of learning, barriers to participation, learning interests, needs, motivations, and instructional preferences. Findings: the purpose of later life learning is to increase knowledge and to keep up to date with society. The purposes or meanings of later life learning are of functional nature, which is related to health; empowerment or emancipation for personal interest and fulfilment; moral where learning is for any ages; and transcendence where learning is living, life-wide and lifelong. Elders are more likely to be motivated by expressive rather than instrumental reasons. Preferred areas of learning: things about their health, for leisure and interest. Selective approach to learning: learning useful and suitable things.</p>	<p>Functional nature of learning Empowerment Moral learning Transcendence Expressive reasons Selective approach</p>
19	Tam et al. (2017)		<p>Mixed methods questionnaire and semi structured interviews; 519 older adults in Hong Kong and 421 in Australia aged 55 and older; 18 older participants in organized learning and 21 non-participants in Hong Kong; 28 participants (aged 55 years and older) in organized learning; 12 interviewees non-participants in Australia</p>	<p>Focus of study: cross cultural understanding of ageing and learning by seniors in Hong Kong and Australia - the similarities and differences in reasons, choices, processes and barriers for elders in different cultural contexts as they conceptualize, experience and negotiate ongoing learning. Findings: Views of ageing show that elders in both cultures greatly value the maintenance of health. Hong Kong participants were concerned with peace of mind and adjustment, while Australians were more concerned with the ability to make choices and to be able to act according to their own values. The cross-cultural research involving elders in two cultures, Hong Kong and Australia, has so far reported both differences and similarities regarding the conceptualizations of the meaning of ageing and learning, reasons and</p>	<p>Culture related differences Maintenance of health Adjustment Making choices Meaning of ageing and learning</p>

				barriers for participation and non-participation, interests and choices for learning.	
20	Tyler et al. (2018)	Thematic analysis	Qualitative case study photo-voice, diary, semi-structured telephone interview 11 older adults aged 59 to 82 in Australia	Focus of study: the digital experiences of older adults – Internet “super-users”. Findings: older adults’ digital participation is best conceptualized by incorporating self-efficacy theory, digital competence and personal learning environments (PLEs). The increase in the level of self-efficacy results in increased motivation. The personal learning environment, which is defined as technology used for learning is the contextual environment in which self-efficacy and digital competence is learnt and enacted.	Self-efficacy Personal learning environment Digital competence
21	Withnall (2006)	Thematic analysis	Qualitative Focus group 10 focus group discussions with very different groups of older post-work learners (total number 98)	Focus of study: life course influences on older people’s learning. Findings: Older people often have progressive attitudes towards change, accept it, and take personal responsibility for coping with it. Construction of a conceptual model of influences on later life learning. The multiplicity of influences on the life course operate in an interrelated and complex manner within a continually changing and evolving social and cultural context over time. The individual is affected by situational and personal factors over the life course, including the time spent in educational institutions, the timing and circumstances of becoming post-work and the possibilities of subsequent involvement in learning. The notions of learning may change and differ among older adults.	Situational influences Institutional influences Individual influences Change and discontinuity Personal responsibility Coping with change

Appendix 2: Literature review of self-directed later life learning in informal context

Author(s), year	Theoretical framework	Methodology (type, participants)	Findings	Themes, subthemes
Grover et al. (2017)		Quantitative online survey; 73 older adults	Focus of study: Self-directed learning practices and individual characteristics in respect to perceived quality of life. Findings: Older adults are in control of and take responsibility for their learning. Not establishing a plan for learning. The behavioural nature of individual control of learning.	Control of one's own learning Planning Management Evaluation
Lear (2011)	Heuristic inquiry	Six women aged over 50 (58-71) in South Australia	Focus of study: life-wide learning and personal development of older women in community activities. Findings: For rural women learning is personally rewarding and provides opportunities to develop an independent identity, achieve recognition, make a difference and contribute significantly to community viability and wellbeing. Most of learning is experiential through everyday involvement and social interactions.	Empowerment Personally-rewarding learning Experiential learning
Rager (2006)	Constant comparative method	Qualitative: interviews with 12 older men, prostate cancer patients in USA	Research focus: the use of self-directed learning in a crisis situation. Findings: Connecting to survivors is critical to self-directed learning. The desire to make informed treatment choices or to validate the recommendations of the doctors is a strong motivation factor. Strategies of evaluation included identification of multiple sources verifying the information, common sense, the reputation or credentials of sources, comparison of a survivor's experience with the participant's particular set of circumstances and an 'ongoing analytical process' that included consideration of personal values. The emotional component represents a challenge for self-directed learners. The motivation to continue the quest for new information on their issue - 'watchful waiting'. Deficiency in self-directed learning skills identified as a disadvantage. The desire to help other newly diagnosed individuals identified as an outcome of self-directed learning.	Social learning resources Informed participation Evaluation strategies Ongoing learning Learning competence Generativity as an outcome of learning
Roberson (2003)	Constant comparative method	Qualitative semi-structured interviews, 10 older people aged 75 to 87	Focus of study: older, rural adults utilizing self-directed learning in the adjustments of late-life. Findings: Self-directed learning is highly engaging, variably structured, collaborative, and goal-directed. The specific process of self-directed learning involves an incentive to learn, an interest, accessing resources, systematic attention and adjustments in learning to fine-tune the learning, resolution or continued pursuit of the learning activity.	Engaging nature Variable structure Collaboration Goal-orientation Adjustments

			Another person acts as a catalyst interspersed in the process. The rural environment is a positive context for learning. Late life adjustments are a primary incentive for self-directed learning. Self-directed learning is an integral process in the lives of older adults.	Another person as catalyst Integration Rural environment as positive context
Roberson (2004)	Constant comparative method	Qualitative in-depth, semi-structured interviews, 10 older adults aged 75 to 87	Focus of study: older, rural adults utilizing self-directed learning in the changes of late-life. Findings: The highly engaging aspect of learning: learning activities perceived as enjoyment, fun, and excitement. The variable structure: contrasts of new and old information, serendipitous and determined events, and simple and complex topics. The collaborative nature: incorporation of other people in their community in the learning. The goal-directed aspect: commitment to accomplish a certain objective of learning. Outcomes of learning include improved life satisfaction, help with aging-related adjustments, lessening some of the negative aspects of aging. SDL is a continuum of learning from individual personal efforts to a lifestyle of learning. Learning as empowering experience enables older adults to utilize retirement to learn the necessary tools for change and personal enrichment.	Engagement Variable structure Collaborative nature Commitment to accomplish the goal Continuum of learning Adjustment Personal enrichment Empowerment
Roberson (2005a)	Constant comparative method	Qualitative semi-structured interviews, 10 participants aged 75 to 87	Focus of study: the role of leisure in older adult personal learning. Findings: the leisurely style of learning enables the individual to adjust to change. Self-directed learning is motivated by generative action - children and grandchildren may become like a personal project of learning for older adults. Older people are motivated to learn what is necessary to gain pertinent information at their stage in life. Learning during one's leisure time allows the individual to have more control and power in their learning.	Leisurely style of learning Family needs as motivation for SDL Information for the life stage Control and power in learning
Roberson (2005b)	Constant comparative method	Qualitative semi-structured interviews, 10 participants aged from 75 to 87	Focus of study: late life adjustments through self-directed learning. Findings: late life adjustments include: adjustment and adaptation to the loss of time by leaving a legacy to help the next generation; internal struggle to feel positive about one's life; facing degenerative changes in one's body; encountering loss (of respect, acquaintances, health). Generativity through one's family, volunteering or mentoring provides opportunities for personal learning. In order to age successfully older adults can learn to adapt, adjust, and change through self-directed learning.	Change and adjustment Learning opportunities in generativity

Roberson and Merriam (2005)		Qualitative semi-structured interviews, 10 participants aged from 75 to 87	Focus of study: the process of later life learning Findings: the process comprises a loosely organized series of events. The individual will make some adjustments in order to fine-tune the learning. At some point after making adjustments in the learning activity, the project comes to an end (resolution), or the person continues to pursue the learning activity. The motivation and intensity to learn are often enhanced during this process through a catalyst. An internal incentive is something the person wants to learn on his or her own; an external incentive is something that others ask the person to do. Adjustments in one's learning activities are often the result of an error or mistake. Some event may speed the process or stimulate deeper learning.	Internal and external incentive Systematic attention Interest Assessing resources Trial and error strategy Important events speeding the learning process
Scott (2006) Scott (2004)	Constructivist grounded theory	Qualitative Semi-structured interview; 8 older adults aged over 50.	Focus of study: congruous autonomy as a form of autodidactic learning. Findings: Congruous context is central to self-directed autonomy. Self-directed learners use congruous autonomy to exercise control over their learning. Older learners use strategies of sorts represented by planning and principles for maintaining commitment to the pursuit when faced with barriers: ability to adapt, accepting obstacles as part of the process, and progressive realization of worthwhile goals. Commitment to the pursuit is facilitated by a strong system of beliefs and values. Learning competence is affected by congruous context, efficacy and commitment to pursuit.	Self-efficacy Development of personal potential Congruous context Intrinsic motivation Realization of worthwhile goals Reliance on beliefs and values Competence originating from lifetime patterns of experience
Sears (1989)		Mixed: quantitative and qualitative In-depth interview with 120 older adults aged over 50 in the USA	Focus of study: the motivational factors, anticipated benefits and obstacles of self-directed learning undertaken by older adults. Findings: The major motivational factors are learning for self-enjoyment and self-fulfillment. Self-directed learning projects are self-planned. Obstacles to learning: lack of time, cost of activity, home responsibilities, difficulty deciding what knowledge or skill to learn; difficulty remembering new material or information; poor health. Self-directed learning is a major source of self-fulfillment and a major way to develop new knowledge and skills. Most self-directed learning projects were expressive in nature, about a third were instrumental. Age was a mediating variable. Older adults perceived their learning to be of significant benefit to others.	Self-enjoyment Self-fulfillment Expressive and instrumental learning Self-planned activity Age as mediating variable Benefit to others

Valente (2005) Valente (2006)	Constant comparative method	Qualitative Semi-structured Interviews 15 older adults, ages 65-89.	Research focus: the role of self-directed learning in older adults' health care. Findings: older adults' engagement in SDL in health-related context is motivated by age-related issues, other people and potential benefits associated with controlling one's health. The specific process of self-directed learning involves triggering health event, acquiring and assessing information, choosing treatment options, monitoring treatment results, and managing adjustments in life style and treatment. The self-directed learning process specific to health care involves negotiation and socialization. Self-directed learning is perceived as positively affecting health care. The factors affecting self-directed learning: individual's level of physical and psychological strength, positive outlook on life.	Other people as motivation source Controlling one's health Negotiation and socialization Empowerment Seeking independence Learner initiated learning cycle
Withnall (2017)	Autoethnography Critical reflective analysis	Case study; personal experience of an older woman.	Focus of study: personal learning experience to manage one's health condition connected to the social, cultural, and political context. Findings: Empowering oneself and establishing a degree of control over one's chronic illness in later life involves self-directed learning. Learning to self-manage a chronic illness can be a lengthy process when the individual learns to identify, access and use the necessary resources to manage one's condition.	Empowerment Establishing control Self-management Resources
Woodilla and Stork (2016)	Autoethnography	Qualitative Case study Two third age learners	Focus of study: development of coping strategies to continue engagement in learning. Findings: Introduction of the concept of a "learning jolt" - emotional, physical, and cognitive experience which "signals a real breakdown in the ability to learn in familiar ways". When experiencing a learning jolt, older learners rely on self-efficacy and search for an alternative mode for learning and develop a different approach to learning. The learning jolts challenge learners' self-concept as learners and their competence as self-directed learners	Change of learning strategy Development of a different approach to learning Self-efficacy Self-concept Self-directed learner competence

Appendix 3: Literature review of generativity and learning

	Author(s), year	Theoretical framework Methodology (type, participants)	Findings	Themes, subthemes
1	Bates and Goodsell (2013)	Grounded theory; qualitative interview; narratives grandsons told about their grandfathers (n=14) (USA) Generativity perspective Psychosocial development theory	Generative grandfathering dimensions include consciousness of the family's lineage, skill sharing, meaningful emotional bonds, renewing bonds, family identity, sacred family spaces, culture of good fathering, multigenerational family generativity, and inter- and intra-generational improvement, which reflect grandfathers' generative efforts.	Family identity Skill sharing Development of family bonds
2	Birrer-Hardwick and Greenwood (2017)	Qualitative – thematic analysis; Interview with 10 older adults aged 65-82; (Ireland) Social capital theory	Older adults enact valuable roles in their community through engagement in volunteering as generative activity which enhances their social and psychological well-being. Family was identified as having little importance as a source of social support.	Peripheral role of family Communal generative pursuits Disregard for non-generative pastime
3	Borrero and Kruger (2015)	Qualitative phenomenological approach and thematic analysis; photo elicitation, journaling, in-depth interviews with six retired women (USA) Social gerontology Critical feminist and age stratification theories	Generativity (although the term is not used in the study) after retirement through engaging in part-time paid employment and/or participating in volunteer work. Being of help and support to others is a distinct aspect of a retired woman's identity during retirement motivated by making generative impact on the lives of others.	Consistency of identity Social connectedness Continued learning Involvement in work roles
4	Chen (2016)	Constant comparative method Qualitative study: in-depth interviews with 31 older adults aged 60-93	Study focus: the roles of learning through volunteering. Volunteering as a form of informal learning provides a holistic approach to successful ageing including physical, psychological, social and spiritual dimensions. Learning through volunteering facilitates successful aging by establishing a substantial and expanding life, building and improving relationships, enhancing positive changes and self-evaluation, promoting health, triggering treasures and preparation for the rest of life. The interpersonal skills learnt influence late adulthood by building and improving relationships. Learning is a substantial tool to overcome tensions.	Volunteering as environment for informal learning Learning through helping others Positive changes Self-evaluation Preparation for the rest of life Interpersonal skills Overcoming tensions
5	Field (2003)	Social attitudes survey including 1,800 adults (Northern Ireland) Lifelong learning perspective	Positive association between recognition of the importance of civic engagement in one's own life and learning. Lifelong learning is valued as a force for personal emancipation and active citizenship. Lifelong learning is considered a means of personal growth	Learning and civic engagement relationship Commitment to learning Personal growth Emancipation

6	Flynn (2001)	Qualitative - thematic analysis; interviews with 100 religious sisters, aged 64-95 (USA) Social participation perspective	The study of meaningful activity of retired religious sisters focused on personal growth and development. The study demonstrated the interest of older sisters in learning new things associated with change acquiring greater depth on what is already known, medical advances, nature, artistic endeavors, languages, literature, and others.	Meaningful activity Personal growth Variety of interests Learning new things
7	Golding and Foley (2017)	Interpretative qualitative study – narrative research based on the interviews with older men (Australia) Gendered intergenerational learning perspective	Older men’s informal mentoring, sharing skills, and developing meaningful relationships with disengaged and disconnected young people in the community provides opportunities for older men’s learning through carrying forward life experiences, seeing one’s knowledge as developmental and situating it as contemporary.	Mentoring as a learning context Intergenerational learning
8	Jones and McAdams (2013)	Life-narrative and content analysis; online survey, life-story interview 158 older adults aged 55 to 59 years (USA) Generativity perspective Psychosocial development theory	Adults’ commitment to caring for and contributing to the well-being of future generations are the developmental antecedents of generativity through engagement in political and civic activity in midlife.	Positive socializing influences Political and social activity
9	Kleiber and Nimrod (2008)	Grounded theory; in-depth interviews with 20 retirees aged 57 to 78 (USA) Generativity perspective	The dynamics of generative expressivity in a group of 20 well-educated members of a local ‘learning in retirement’ community demonstrates a variety of generative activities. Generative activities were identified as those which yield some benefit for both oneself and future generations. Generative activity patterns are consistent with civic engagement.	Benefit for oneself and future generations Civic engagement
10	Krašovec and Gregorčič (2017)	Case study; interviews and a focus group with 12 persons, 6 out of 12 being retired aged 65+ (Slovenia) Social learning perspective	Intergenerational informal learning is expressed in exchange of knowledge, skills, values and practices between self-organized active citizens through participation in the democracy process in district communities. Older adults’ social learning encompasses consideration of others’ views and accepting tolerance, awareness of and helping others, and the feeling of connectedness. Older adult learning is informal, activist, authentic and primarily emancipatory. Older people are provided with an opportunity to learn about younger generations and their values.	Social learning Behavioral and value exchange between generations Self-organized district communities as a space for learning Awareness of learning Emancipatory learning
11	Lear (2013)	Qualitative – heuristic inquiry; semi-formal research conversations with six women aged 58-	Third age women’s learning is influenced by their experiential knowledge and civic engagement. Older people learn through experience,	Learning through experience, participation and social interaction

		70 involved in transforming their local communities (Australia) Third age learning, generativity and civic engagement perspective	community participation and social interaction. Learning is reflected in a new consciousness of self and the world. Learning is mainly informal, implicit and tacit. Community engagement can contribute to older women's personal development by increased self-confidence, sense of efficacy, deeper self-understanding, critical awareness of one's actions and development of skills and knowledge. Learning is motivated by the requirements associated with one's leadership position. Learning is essential to personal growth, fulfilment and self-realization. Learning is of implicit, tacit, incidental and experiential nature. Older people develop a new, more authentic and satisfying identity to go into old age.	Personal development Implicit, tacit, incidental and experiential nature of learning Development of a new identity for one's old age
12	Lysack and Steipke (2002)	Constant comparative method; in-depth interviews with 23 women aged over 85 (USA); Continuity theory and symbolic interactionism	The "feminine sphere" (i.e. traditionally female tasks) is the backdrop for elderly women to construct and communicate images of competent occupational selves. Women find satisfactory ways to compensate for the activities they can no longer perform. The reasons for holding to the occupational self: being independent in self-care, personal mobility and public representations of the self to others. Elderly women redefine and reconstitute the boundaries of their occupational self to match the current situation by reducing the level or restricting the range of activities.	Competent occupational self Compensatory strategies Public image Occupational competence
13	Narushima (2004)	Qualitative case study; document analysis, interviews and participant observation of 15 Grannies (Canada); Feminist life-span perspective Interdisciplinary perspective: adult development, critical gerontology, women's studies and psychodrama	The focus of study: later life learning experience and meaning in the Grannies style activism. Collaborative and creative political activities with other women facilitate later life learning and empowerment. Learning is reflected in the changes older women undergo. Taking on the role of a Raging Granny means engagement in "an on-going process of self-actualization and liberation. Learning encompasses the "quest for an authentic self and spiritual growth" which goes with the "goals of later life development as 'ego-integrity' and 'transcendence'". Social activism serves as an alternative model for later life learning. Involvement in political community activism provides a social and collective learning environment.	Self-defined social role Collective identity Empowerment Social collective learning environment
14	Narushima (2000)	Qualitative approach - "Life history" research; interviews and participant	Study focus on learning experienced by older adults through engagement in volunteer work, and their effects on	Experiential learning Holistic learning

		<p>observations 15 volunteers aged 54 to 94 (Canada) Transformative learning theory</p>	<p>aging. Volunteering provides continued learning opportunities. The learning is experiential and holistic. The types of learning include communicative competence and instrumental knowledge. Communicative competence development encompasses interpersonal and communication skills. Older adults increase specific knowledge about social issues and self-knowledge. The forms of learning through volunteering include formal training, self-directed study, and problem-solving and communication with others at volunteer sites. Behavioral and perspectival change is the outcome of learning.</p>	<p>Communicative competence Interpersonal skills Knowledge of social issues Self-knowledge Self-directed study Tacit learning Change of behavior and perspectives</p>
15	Narushima (1999)	<p>Qualitative - case studies; life history interviews with 2 older volunteers in their 70s and participant observation (Canada) Transformative learning theory and critical gerontology</p>	<p>Study focus: transformation in meaning structures in later life development through engagement in community volunteering and its effects on ageing. Volunteering fosters communicative and holistic type of learning as realization of an individual's full potential. Outcomes: self-knowledge, better understanding of society and a higher level of social integration. Problem-solving experiences are associated with constant learning which results in a constructive process of self-integration, self-growth and self-actualization. Development or growth in late adulthood may represent an adaptive process of making sense of one's experience to integrate oneself firmly in relation to others and society. Older adults continue to learn and adjust their lives in response to loss and discontinuity. Emancipatory nature of learning is expressed in social interactions.</p>	<p>Transformative learning Communicative learning Holistic learning Self-actualization Self-integration Self-growth Loss and discontinuity Emancipatory learning</p>
16	Narushima (2005)	<p>Qualitative - interviews, documents and participant observation; senior volunteers in 12 Toronto NPOs (Canada) Inter-disciplinary theoretical framework - moral economy of ageing, adult development and transformative learning</p>	<p>Community volunteering provides opportunities for expression of generativity in late adulthood and social and instrumental learning. Transformative learning embedded in participation enables older people to maintain their self-esteem and well-being.</p>	<p>Social learning Instrumental learning</p>
17	Piercy et al. (2011)	<p>Qualitative – thematic analysis; semi-structured interviews with 38 adults aged over 50 (USA)</p>	<p>Volunteering experiences affect psychosocial development of older volunteers facilitating altered personal perspectives, greater appreciation of cultural differences, finding existential meaning in service, gaining deeper</p>	<p>Existential meaning Understanding the complexity of the world</p>

		Generativity - psychosocial development theory	understanding and acceptance of others. The attributes acquired in volunteering could be adapted to maintaining ego integrity in later life.	Emotional resiliency
18	Schugurensky and Myers (2008)	Qualitative - interviews and questionnaires with 15 older adults aged 59 to 84 (Canada) Perspective of lifelong citizenship learning and holistic “pedagogy of democracy” theory	Study focus: changes in knowledge, skills and attitudes through older adults' engagement in local democracy. The informal learning acquired by engagement in the activities is largely tacit, but some of it is self-directed or incidental. The changes may be associated with acquisition of knowledge and adoption of new insights or attitudes rather than competencies.	Informal civic learning Adoption of new insights Acquisition of democracy-related knowledge
19	Serrat et al. (2016)	Mixed methods - content analysis and logistic regression Participants: 192 people aged over 65 actively engaged in political organizations (Spain) Civic participation perspective	Study focus: the learning of older people through participation in political organizations. Political participation offers opportunities for informal learning related to social, political, or instrumental domains. Older adults develop better understanding of community and collective action, as well as relational and practical skills in implementing these new understandings.	Informal learning in social, political, or instrumental domains Social learning Political learning Instrumental learning
20	Stergios and Carruthers (2002)	Qualitative – thematic analysis; Interviews with 19 elder volunteers and field observation (USA)	Older adults develop better insight into contemporary young generation through generative activity in the teaching domain. Older adult engagement is motivated by desire to understand the young generation. Participation facilitates further development of expertise and skills from pre-retirement profession and continue engagement in an activity expressing one’s sense of self and personal competence.	Understanding of the contemporary young generation Continuity of professional identity Development of expertise and skills from pre-retirement profession
21	Urrutia et al. (2009)	Qualitative – content analysis; the life-story interview with 15 women aged over fifty-five (Argentina) Generativity and psychosocial development perspective	Generativity in social roles beyond one’s family is strongly linked to the expansion of older people's self. Volunteering allows older women to maintain a space of reciprocity of care and learning. Generative development impacts the older person’s integrity of the self.	Self-integrity Volunteering as a space for learning
22	Warburton and Gooch (2007)	Qualitative - phenomenography; personal and group interviews; 44 participants aged over 55; data from a large qualitative study of environmental stewardship volunteers (Australia)	Generative concerns draw older people’s behavior towards improving the environment for future generations and helping the younger generation by passing on the knowledge and awareness of the environment. Participation in volunteering may fulfil the need to engage in learning as part of personal growth. The learning may be expressed in development of an ecological identity. Transformative learning occurs in the	Personal growth Ecological identity Transformative learning Grand-generativity

		Erikson's theory of generativity	development of grand-generativity as mentoring and teaching young people. The study showed a link between generative activities and older volunteers' personal growth, learning and understanding.	
23	Yuan et al. (2018)	Qualitative – thematic analysis; interviews with 42 older adults aged 59 to 95 (USA). Salutogenic perspective	Older adults engage in a diverse range of daily coproduction activities (experiences) including physical, social, service, discussion and interest-based activities. Providing interacting with people from a variety of life stages helps in learning how to cope with ageing. Coproduction encompasses intellectual activities in the form of sharing experiences, exchanging skills, or discussions, and provides social and informal learning opportunities. Engagement in coproduction is a resource of social learning.	Learning to cope with aging Social learning

Appendix 4: Participants

	Name	Gender	Age	Retirement period	Pre-retirement career	Education	Family	Interview	Transcript
1	Ina	F	73	10yr	teacher	university	widow, a son	39mins 58mins	8p. 10p.
2	Ruta	F	73	6yr	teacher	university	widow, 2 sons	51mins 49mins	10p. 11p.
3	Tania	F	70	7yr	teacher/ school manager	university	widow, no children	45mins	9p.
4	Petras	M	82	15yr	principal	university	married, 2 children, 4 grandchildren	72mins	10p.
5	Brone	F	64	3yr	accountant	college	divorced, 3 daughters,5 grandchildren	35mins 48mins	4p. 8p.
6	Jonas	M	64	0.5yr	principal	university	married, 2 children, 3 grandchildren	56mins	9p.
7	Gene	F	77	14yr	teacher	college	widow, 2 children, 3 grandchildren	43mins	9p.
8	Vaida	F	67	1.5yr	teacher	university	widow, a son, 2 grandchildren	39mins	7p.
9	Ana	F	70	6yr	teacher	university	widow, a son, 2 grandchildren	36mins	3p.
10	Svaja	F	68	6yr	physician	university	married, 2 children, 3 grandchildren	41mins	6p.
11	Laima	F	64	2yr	artist/ teacher	university	divorced, 2 children, 2 grandchildren	54mins	8p.
12	Dana	F	64	2.5yr	civil servant	university	single	85mins	17p.
13	Ula	F	64	4yr	accountant	college	widow, 3 children, 3 grandchildren	74mins	11p.
14	Elena	F	71	5yr	musician	university	married, 2 children, 6 grandchildren	55mins	12p.
15	Nele	F	62	4mos.	teacher	university	widow, a daughter	144min	20p.
16	Yolanda	F	71	6yr	civil servant	secondary	married, 4 children, 6 grandchildren	46mins	13p.

Appendix 5: Example of line-by-line coding

Interview statement	Line-by-line coding
<p>Taip, reikia, jeigu dainos yra ne liaudies, o kompozitorių dainos, tai kartais reikia pasimokyti; mandresnę melodiją reikia trupučiuką pasižiūrėti namuose, nors turiu pakankamai laiko ten išmolti; visos yra ne muzikės.</p>	<p>Preparing in advance – practicing on one’s own at home.</p>
<p>Ir dar teko dainuoti solo vieną dainą. Taip išėjo, kad reikėjo sudaryti programą - buvo Rėzos minėjimas 3-iam amžiuje; tai dar kokią čia solo dainą – tokia mandresnė, buvo sunku išmolti visoms kartu, nes melodija sudėtinga, ir moterims buvo sunku. Tada aš turėjau visą dainą viena padainuoti. O aš buvau nepratusi mintinai dainuoti, dažniausiai mes viską dainuodavome iš natų kiek aš lankiau chorų. O dabar šitą iššūkį pavyko, namie dainuodavau, ir pavyko įveikti; keletą kartų teko padainuoti. Jaučiu, kad atmintį lavinu, ir išvis – kažkaip pasijunti toks labai svarbus, savo reikšmę suvoki (juokiasi). Dabar jau Rėzos pasibaigė tas laikotarpis, jeigu dar koks iškiltų variantas, tai gal įtrauktų tą dainą. Nors aš norėjau ir kitų dainų, bet jos dar sudėtingesnės.</p>	<p>Taking up the challenge of doing new things one never used to do before.</p> <p>Motivation for taking up the challenge – to contribute to the success of the group</p>
<p>Kai kitos dainuoja, man labai lengva kartu dainuoti, nes aš tiesiog pamėgdžioju, seku, kartu. Bet viena niekada nedainavau šitų sudėtingesnių dainų. Tai, kad reikėjo žodžius atmintinai mokytis – man buvo iššūkis. Išmokau. Strategija tokia: kai reikia, užsispiri, dedi pastangas. Darau taip: pasirodo, ir kompozitorių dainos, tame ansamblyje dainuojamos mintinai, visos dainos, ne vien šita. Kai dainuoji su kitomis moterimis, pusėtinai, tačiau vis tiek jauti, kad reikia ir pačiai mokėti. Tai aš taip darau – rašau raštu tuos žodžius. Jeigu aš raštu atsimenu, tai po to dainuoju – atradau tokią metodiką. Aš rašau tuos žodžius – ar aš atsimenu tuos žodžius, ar neatsimenu. Ir taip mokausi.</p>	<p>Employing a common strategy of imitation and doing alongside other people</p> <p>Developing a strategy of learning on one’s own - one never used before.</p> <p>Looking for an effective technique of learning and testing it in practice</p>
<p>Ne, aš taip, jeigu sąžiningai kalbėti, tik palaikau; ir jaučiu, kad nori nenori, lavinu atmintį. Aš galvoju, kad mokydamosi tekstus aš vis tiek savo atminčiai pagelbsčiu, ar ne? Neleidžiu jai rintis žemyn.</p>	<p>Considering the positive effect one’s learning may have on age-related memory deterioration as a preventive means</p>

Appendix 6: Coding example

Interview excerpt	Open codes	Axial codes	Selective code
<p><i>Today I am fearing to meet somebody. I don't want it anymore, as it all feels alien to me – the people and the environment. But I used to miss my ex-colleagues – I used to come and see them (Tania)</i></p> <p><i>All that specialist knowledge becomes irrelevant to your life. I don't need that specialist knowledge of history any more. I don't need all those stacks of books that I have collected. I am not even going to look into some history issues in detail anymore (Vaida)</i></p>	Undergoing detachment /discontinuity	Transferring professionalism	Reconciling past and present
<p><i>After I retired, for some two years I subscribed to a newspaper for teachers. (Tania)</i></p> <p><i>I even catch myself and feel embarrassed – this magazine is for linguists, with articles about methodology, about writers, but I get and read it. I know I will not need that knowledge, but it's still interesting. I can't detach myself from that yet (Ruta)</i></p>	Maintaining continued interest in professional issues		
<p><i>During my career, I used to read it in the library, because I liked it very much. When I retired, I thought it would seem strange to other people if I kept coming to the library to read it. That's why I started to subscribe it to my home. I kept reading it for two more years – I was longing for all those articles, and the knowledge (Tania)</i></p>	Facing conflicting beliefs		
<p><i>You still feel as a professional, and behave appropriately (Ina)</i></p> <p><i>There is such a thing as a teacher's responsibility, which means you must do what is needed (Ruta)</i></p> <p><i>I think I continue being a teacher. I take over those things from my career and use them in my relationship with my mother. I "push her forward" so that she lives longer (Nele, 62)</i></p>	Identifying with professional background		
<p><i>Well, I have been reading now and then – now I was reading the history of civilization. Just because of my grandson – he is in the eighth grade, and calls me: "Granny, please, tell me". So, we discuss some things (Vaida)</i></p> <p><i>My grandson, who is in the third grade, comes for the summer holiday, so he is the one who "shoots" his questions at me,</i></p>	Realizing relevance of professional knowledge		

<p><i>especially those history-related. When he sees a program on television, he asks such a lot of questions that I get tired – he is a real „tell-why”. I can still answer his questions in one way or another, they are not very complicated yet (Jonas)</i></p>			
<p><i>My daughter comes to see me and tells me the news in the school. She is a primary school teacher, so I can sometimes give her some advice (Gene)</i></p> <p><i>Where can you use that knowledge? There isn't much need for that. But my daughter is a teacher, so she asks some questions on educational issues. So, it's only in the family yet. If someone invited me somewhere – I might go and share (Jonas)</i></p> <p><i>Now my favorite niece works as a social educator, and we are “soul mates”. She calls me about her problems, and asks for my experience, what I would do in such a situation. So, we discuss the problems, and she considers me an authority on that (Tania)</i></p>	Sharing		
<p><i>We changed the type of activity. Now there were foreign guests coming, and I used my English language skills. There started to come feedbacks in “bookings” saying “perfect English”, “the hostess communicates in perfect English”, and you know that foreign people when they come, they want to communicate very much (Nele, 62)</i></p> <p><i>You need to learn how to communicate with her [granddaughter]. I have a friend psychologist in the capital city, so I consult her very often on the issues of child education at that age. The third year is critical in a child's life, and you have to know how to overcome the whims and things – there is a lot to do. Thus, I can still use my professional skills (Laima)</i></p>	Transferring to new contexts		
<p><i>When I finished, I thought I would never need that knowledge again, and I would leave it alone. But I see that life has made some corrections – now I need to return to it and refresh the knowledge. I have some books in English, so I will read. I can remember the grammar, but the words. I feel I need to ‘revive’ them (Ina)</i></p> <p><i>If you came to a new job, and you had only that knowledge which you had acquired previously, and you didn't make efforts to develop your competence, you must have felt really unsafe</i></p>	Relying on meta-learning skills developed through career	Invoking enduring strategies	

<p><i>[...] That period was complicated, but interesting. Now there aren't such interesting radio or TV programs any more, and things have become mundane. At that time, all the things had to be learnt anew (Dana)</i></p>			
<p><i>When I had to learn an absolutely new accounting program, I would say to myself: you must do that, there is no alternative – and I did (Brone)</i> <i>I work slowly because I make notes of the texts. Now I have looked through all my notebooks – and I refreshed my mind again. I found a lot of useful records. It seems as if the knowledge as much as I have acquired is coming back (Ruta)</i></p>	<p>Drawing on accustomed sources</p>		
<p><i>You just do and manage it, sometimes accidentally. I don't know how I managed to create my "Facebook". I really don't know. Then registration with doctors – nobody showed me. You just try and do, and find the way (Ina)</i></p>	<p>"Natural" independent learning strategies</p>		
<p><i>When you work as a bookkeeper, you keep learning, because there are always new things introduced – new programs and data bases (Brone)</i> <i>I always prepare – I read all the page of the Teacher's book, paying attention to the guidelines it gives; which things have to be emphasized, or how to adapt to the learner's level. Then I do everything it says in the Teacher's book. And I feel I am learning myself. I was attracted by the idea that I was going to take up teaching, and will use some of my skills (Elena)</i></p>	<p>Maintaining professional attitude</p>		
<p><i>Although the methods are different now, I tell them that they are doing something wrong. You must tell the child about the limits – what is allowed and what is not allowed. Sometimes I need to argue, and they don't approve of my point. I do understand that we have different views, and different life. My grandson will be coming from America for the third summer. The first summer was very difficult, because children are brought up differently abroad – they are allowed everything. Last year was absolutely different. And next summer will probably be even better (Ula)</i></p>	<p>Working out methods of practice</p>	<p>Acceptance with reservation</p>	
<p><i>Now the conditions of child up-bringing are very different. They don't know the meaning of the word "it's not allowed". I didn't realize it first – it was very strange. Such</i></p>	<p>Dealing with contemporary issues</p>		

<p><i>challenges just annoy me, so I am not sure I could continue that for long. I accept the new methods, but it's difficult for me. I hadn't encountered such attitude to up-bringing children. [...] No, I don't feel [age effects on activity] yet. Except that I can't understand those young children who are educated according to a new methodology. In a new way. Only this is where my age restricts me, as I was used to earlier methodologies, stricter ones (Elena)</i></p>			
<p><i>He [son] came and asked "Why you don't recycle – we need to care about the environment and things?" And that's how I started. At the beginning, I thought there were too many bins needed, though. I listen to him. Although, in some cases I argue, it happens (Ina)</i></p>	<p>Consideration of new approaches</p>		
<p><i>Well, you always need to improve competence. They say you need to write some interesting, funny texts [for the booklet]. But I am a person who belongs to another generation, and I think they are not suitable for such a booklet. I agree, if it was a different booklet. So, I distance myself from that...If you find something... (Ruta)</i></p>	<p>Resisting new trends /Withdrawing when expertise not valued</p>		

Appendix 7: Example of Conditional relationship guide

Category: Transferring professionalism

Category	What	When	Where	Why	How	Consequence
Transferring professionalism	<p>Process of creating opportunities for maintaining and making use of pre-retirement career competencies</p> <p>Vivo “Who needs me with all my [professional] knowledge?”</p>	<p>Communication Advice Discussion Request for help Potential sharing in future</p>	<p>Family Personal business New area of activity Providing help Continuing productive activity Providing care</p>	<p>Responding to complexity Commitment to quality Preparation for leaving a legacy Keeping pace Self-identification</p>	<p>Demonstrating competence Improving social performance Meta-learning competence Invoking enduring strategies</p>	Self-reliance

Negative cases: Doubting usefulness - being convinced there are no opportunities to use specialist knowledge

Appendix 8: Example of Memoing

Learning through RECIPROCITY

2019-01-20

Intergenerational relationships is a domain for learning in later life. The aspect of reciprocity becomes essential here. Although it has been long assumed that the wisdom, expertise or experience accumulated by older generations should be passed on to the younger generations as a legacy, which has been valued by societies as giving a sense of unbroken continuity and stability, the participants suggest that their previously gained knowledge may be of little value to younger generations. It's not just about passing on the knowledge or values, it's also about learning about the change in the new generations, trying to understand that change and find a way how to impart your knowledge/values to the younger generations. Following Erikson's idea that generativity is related with teaching and learning about "what and whom you can take care of" (Erikson, 1974, p.124). One's contribution to "the life of the generations" (Erikson, 1975): (1) within one's generation; (2) caring for older (preceding) generation; (3) caring for following (succeeding) generations.

The learning nature in reciprocity between generations is embedded in the situation: learning from younger generations, getting to know their needs, finding ways to contribute. "Being interested in development, living conditions, and vital interests of younger people, the transmission of information to younger generations and the self-responsible reflection of experiences and knowledge systems of younger generations are examples for intellectual and emotional productivity in old age (Kruse & Schmitt, 2012, p.2). The responsibility for succeeding generations is an area of responsibility associated with "individuals' obligation against God and creation" (Kruse & Schmitt, 2012, p.2-3)

Learning through expression of GENERATIVE CONCERN

2019-01-27

Older people generally focus their generative concern on the immediate environment – one's own family - children and relatives. Interaction with and care about individuals in a younger generation is an expression of intellectual and emotional productivity. Older people may consider involvement in generative activity a way to prove one's expertise and to change the attitude by creating opportunities for communication with younger generations. However, individually perceived "common derogative attitude towards old people as worthless" may become an obstacle for expressing one's generative concern on a greater (community) scale.

- 1) within one's generation. Restricting one's social context to communication only with peers may lead to fewer opportunities to express one's concern or reducing the extent of one's generative concern.
- (2) older (preceding) generation. Caring for preceding generation may be expressed by creating an enabling environment - learning to care for a family member in a way that enables the person cared for. The situation of giving care boosts the person's self-confidence - feeling important, strong and needed when with an elderly parent – realizing the mutual benefit in the intergenerational relationship

(3) following (succeeding) generations. There is a need for learning to harmonize one's relationships with younger generations, which is generally expressed as learning to give up controlling their lives, learning how to give one's advice in an unobtrusive way.

Believing in the potential of the older generation to play a more significant role if the younger generation were prepared to accept their contribution, an older person may develop some maxims guiding their relationships with younger generations. For example, being considerate and tactful in communication with younger generation may be developed as a behavioral principle leading to acceptance. The learning situation is reflected in an older person having respect to the "current knowledgeable expertise" of young people. Believing that one should trust the young generation realizing their needs better than somebody older, an older person is doing his/her best to understand their needs and beliefs. However, this attitude may lead to underestimation of one's own knowledge, skills or experience or even accepting uselessness of one's previous experience to younger generation. Questioning the value of one's experience gathered through the lifetime may result in believing that sharing this experience will not be acceptable to younger people. Not feeling an urge to pass on one's knowledge to the younger generation, an older person may develop a strategy of learning from observing younger people. This is expressed by an "in vivo" code shared by many participants: "Living in the present, in today's world the way it is".

These attitudes align with McClusky's argument that the relevance of learning is associated with the difference in the environment in which younger generations are immersed. Contemporary younger generations are better positioned to reflect change, and this realization of the difference in the positioning may encourage older people to maintain contact with younger people to keep up with the change.

Appendix 9: List of published texts and conference speeches by Salomėja Šatienė

The list of published texts

1. Šatienė, S. (2013). Institutional older adult education: Older learner characteristics and role in lifelong learning. In *Proceedings of the 10th International scientific conference Current Issues of Education in PhD Students' Researches* at faculty of Education, Palacky University Olomouc, 27-28 November, 2013.
2. Šatienė, S. (2015). Learning in later life: The perspective of successful ageing. *Sveikatos ir socialinių mokslų taikomieji tyrimai: sandūra ir sąveika/ Applied Research in Health and Social Sciences: Interface and Interaction*, 12(1). <https://doi.org/10.1515/arhss-2015-0003>
3. Šatienė, S. (2016). Self-directed learner development: A transformative learning perspective. *Studies-Business-Society: Present and Future Insights I*. In *International conference proceedings (peer-reviewed)*. Klaipėda State University of Applied Sciences.
4. Šatienė, S. (2017). Self-directed learning in later life: Motives and learning competences of retired teachers. *e-Pedagogium*, 17(2), 50-61. <https://doi.org/10.5507/epd.2017.024>
5. Šatienė, S. (2017). Self-directed later life learning: The individual and social contexts. *Sveikatos ir socialinių mokslų taikomieji tyrimai: sandūra ir sąveika/ Applied Research in Health and Social Sciences: Interface and Interaction*, 14 (1), 2-25. <https://doi.org/10.1515/arhss-2017-0002>

The list of conference speeches

1. Presentation of paper *Institutional Older Adult Education: The Older Learner Characteristics and Role in Lifelong Learning* at the 10th International scientific conference Current Issues of Education in PhD Students' Researches at Faculty of Education, Palacky University Olomouc, 27-28 November, 2013.
2. Presentation of paper *Learning in Later Life: The Perspective of Successful Ageing* at the international scientific conference "Ageing with Dignity: Mission (Im)possible" in Plunge, Lithuania, held by Klaipėda State University of Applied Sciences, 16th April 2015.
3. Presentation of paper *Self-directed Learner Development: The Transformative Learning Perspective* at International scientific conference *Studies – Business – Society: Present and Future Insights*. Klaipėda state University of Applied Sciences, 22-09-2015.
4. Presentation of paper *Non-formal Adult Education in Lithuania: The Lifelong Learning Perspective*. International scientific conference *Studies – Business – Society: Present and Future Insights*. Klaipėda State University of Applied Sciences, 20-09-2016.
5. Presentation of paper *Self-directed Learning in Later Life: Exploring the Influence of the Learners' Professional Background* at the national scientific conference *Suaugusiųjų švietėjų ir besimokančiųjų veiklos optimizavimo aspektai*. Klaipėda University, Institute of Continuing Education, 12-05-2017.