Desk research on intergenerational practice

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Introduction

Initiatives designed to support old-aged learning by promoting their active social participation has gained substantial attention all over the world in the past decades (e.g.,Corrigan, 2011; Jacobsen, 2017; Lin & Sandman, 2012; Ropers, 2013) It is partly due to the growing number of elderly population (DESA, 2017) and the emergence of several related issues regarding their social reintegration (cf. Liotta et al., 2018). Intergenerational practice may act a possible solution to assist in bringing older people into closer contact with younger members of the society by providing a non-formal learning context of cross-generational exchange (.g., Newman, Hatton-Yeo, 2008; MacCallum et al., 2006; Martin et al., 2010; Sanches & Kaplan, 2014).

The Erasmus+60 research project approved by French National Agency is directed to explore the potentials of intergenerational exchange as a means for community building in the framework of higher education with the contribution of University de Versailles (France), Eurpoen University Foundation-Campus Europea (Luxembourg), Sveculiciste Splitu (Croatia), Universidade di Porto (Portugal), Latvias Universitate (Latvia), Eötvös Loránd Tudományegyetem (Hungary), Mendelova Univerzita Vbrne (Czech Republic), Universitat Zurich (Switzeland).

Outline of the desk research

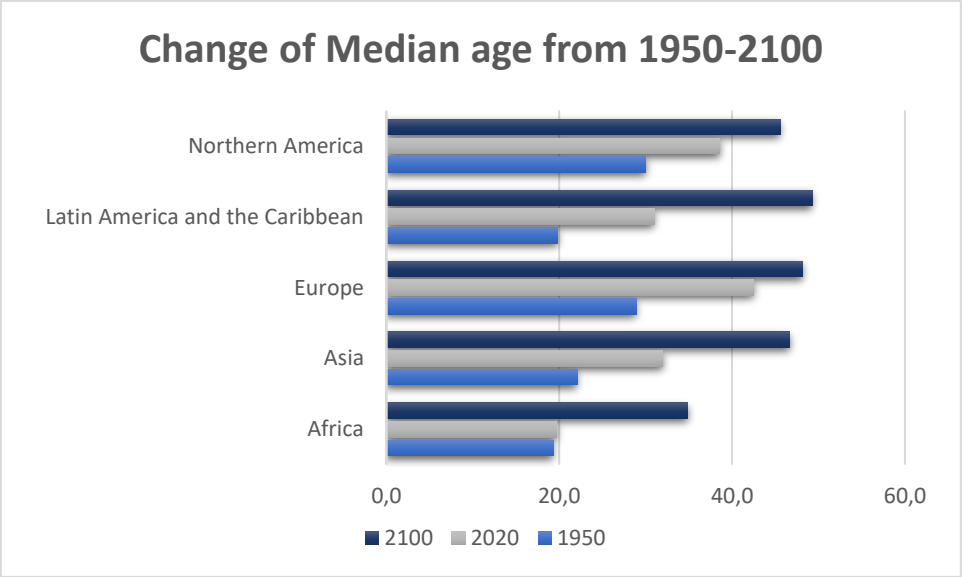
Specific objects of the literature review were to describe the demographics of aging population and define third-age population in particular. Another aim of the desk research was to identify the key aspects of intergenerational learning and outline the intended outcomes as well as the possible benefits of intergenerational initiatives. The research was also directed to describe the key features of successful intergenerational practices and identify possible challenges of such initiatives by outlining the process of intergenerational practice.

Further aims of the research included describing selected intergenerational projects in different regions of the globe as well as outlining certain cross-generational projects that were conducted in the higher educational context, specifically. The following part of desk research aimed to outline specifics of older adults' participation in continuing education programs. The final part of the study was about drawing an overall conclusion by highlighting the main points of the literature review.

1. Demographics of Ageing Population

There is a continuing growth of aging population by virtue of the decline in the proportion of working population and the expansion in the number of older adults (DESA, 2017; United Nations, 2017). Although demographic ageing is a global continuous process, it mostly occurs in the more advanced, industrialized countries due to the continuously improving living standards and better medical care for older people (Weil, 2006). As Figure 1 outlines, there can be considerable differences between the median ages of more developed continents such as Europe (*M*=41.7) and lesser developed continents like Africa (*M*=19,7). Nonetheless, it is believed that by 2050 more than 2 billion people will be 60+ years old. It is also estimated that within 50 years, one's average lifetime in an industrialized nation will reach approximately 100 years of age (Vaupel & Kistowski, 2006).

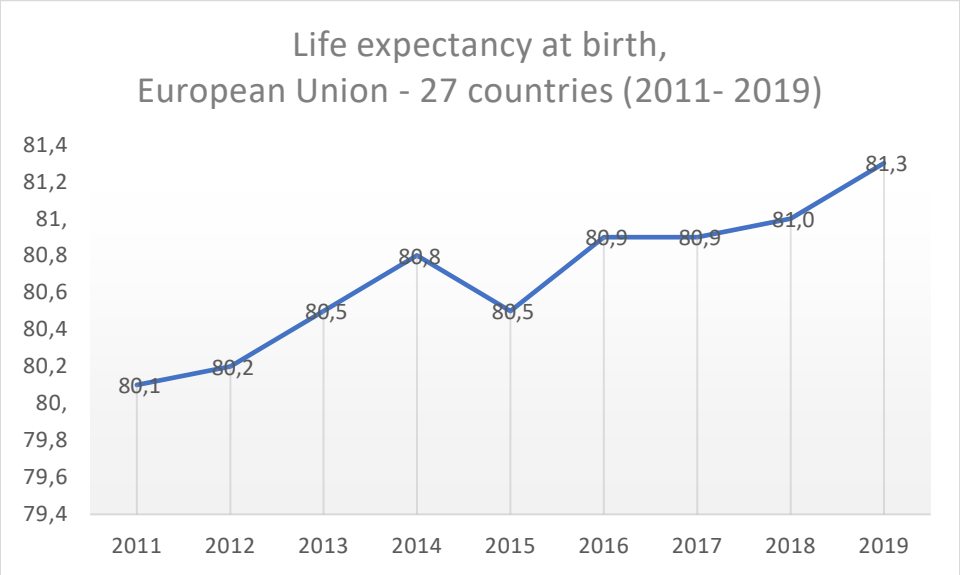
Figure 1. Changes in median ages by continents



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019 (custom data acquired via website)

Concerning the European Union in particular, as Figure 2 presents, in the past decade, life expectancy at birth has increased by 1.3 years, from 80, 1 to 81.3 years. Notably, as Table 1 outlines, even in the EU, there can be perceivable differences between certain countries. For instance, the median ages of given European countries (such as Hungary or the Czech Republic) are still below the average age of the EU. Nevertheless, all EU countries obtain an increasing tendency of higher life expectancy. Thus, research dealing with this particular population has gained considerable significance. (e.g., Newman, Hatton-Yeo, 2008; MacCallum et al., 2006; Martin et al., 2010; Sanches & Kaplan, 2014).

Figure 2. Life expectancy at birth, EU, 2011-2019



Source: Eurostat (custom data acquired via website)

Table 1. Changes in median ages of selected European countries

GEO/TIME	2000	2005	2010	2015	2020
EUROPEAN UNION (27 COUNTRIES)	38,0	39,5	41,3	42,4	43,9
Belgium	38,7	40,1	40,9	41,4	41,6
Czech Republic	37,3	38,8	39,8	41,1	43,3
Denmark	38,2	39,4	40,6	41,5	42,0
Germany	39,8	41,8	44,7	45,9	47,8
Greece	38,5	39,2	41,5	43,4	45,3
Spain	37,2	38,6	40,3	42,3	43,9
France	37,3	38,6	40,0	41,0	42,7
Italy	40,1	41,6	43,7	45,1	46,5
Luxembourg	37,3	38,1	39,0	39,3	39,5
Hungary	38,5	38,9	40,1	41,6	42,6
Netherlands	37,3	38,9	41,0	42,2	42,8
Austria	37,9	39,7	42,0	43,0	44,5
Finland	39,2	40,8	42,1	42,4	42,8
Sweden	39,3	40,1	40,8	40,9	41,1
Switzerland	38,5	40,1	41,6	42,2	42,7

Source Eurostat and Worldata (custom data acquired via website)

2. Defining elderly population

In order to gain a deeper understanding about the concept of intergenerational learning, besides the notion of population aging, the term *elderly population* needs to be defined. Notably, there are numerous definitions and categorizations concerning this particular age group. One of the most widespread systematisations is based on the World Health Organization. The WHO (2015) presented five different age-groups. These consists of young age (25-44), middle age (44-60), elderly age (60-75), senile age (75-90) and long- livers (90+). This systematisation is contingent on various biological factors, according to which elderly age begins above the age of 60.

Nonetheless, when considering other constituents such as socio-economic aspects, elderly population can be defined in different ways as well. The term *third age* was first coined by Laslet (1989) that presented three main categories of ages concerning the different parts of the lifelong learning spectrum. According to his categorisation, third age was conceptualized as a period characterized by the withdrawal of active working-and social life. He also considered this particular period a short interval between retirement and deterioration. The categorisation of the Green Paper (2005), published by the Commission of the European Communities, resembles the third age perspective by Laslet (1989). However, the latter systematisation subsumes an increasement concerning this particular period of life, partly due to economic changes of the past decades. Hence, Green Paper (2005) defined this lifespan by including older workers (55 and 64) followed by elderly people (65-79), and aged people (80+). Thus, educational research dealing with elderly population includes all the above-outlined three categories and discusses the opportunities of the learning development of adults with active and post-working age (e.g., Klimczak-Pawlak & Kossakowska-Pisarek, 2018; Borkowska, 2021.

3.Defining Active Ageing

As a response to the challenges of aging population, the concept of active aging has emerged mostly in Europe. Based on World Health Organization (WHO, 2002) and several other governmental and nongovernmental organization initiatives, a policy framework of active aging has evolved that was directed to emphasize the link between activity, health, independence, and well ageing. As Foster and Walker (2015) pointed out, one of the first attempts to conceptualize active ageing was through "successful ageing", which was mainly connected to the notion of having an active life at an advanced age. Subsequently, the WHO (2002) defined active ageing as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age" (as cited in Liotta, et al., 2018, p.1). We can see a great variation of different terms that try to determine the notion of "aging well" such as: successful aging, active aging, productive aging, positive aging and competent aging. (Foster & Walker, 2015). As contribution for the public discourse Zaidi and his colleagues explained how to measure active aging in various countries, by introducing the Active Aging Index (AAI) (Zaid et al, 2012). The index explains to what extent active aging is implanted in each country in a scale of 0-100.

Over the last decades the concept of active aging became a commonly used term that reflected a more comprehensive focus, which considered not only health indicators, but also psychological, social, and economic aspects. (Paul et al., 2012) There can be highlighted at least three key aspects of active aging (WHO 2002) that deal with autonomy (perceived control over one's life), independence (capacity to live independently in the community) and the quality of live. Hence, active ageing appears as an outcome of different determinants and should be supported by concrete policy frameworks. Two contrasting models have evolved in EU policy discourses on active aging over the last two decades (Foster & Walker, 2015): a more dominant aspect appeared in the productivist approach focusing on the extending of working life, while a more comprehensive active aging strategy is envisioned that it "should be based on a partnership between citizens and society and aim for a comprehensive, noncoercive and inclusive approach to active aging" (Foster & Walker, 2015, p. 84)

Recently, the WHO (2020) proposed a plan for a Decade of Healthy Ageing (2020-2030), which is the second action plan of the WHO Global strategy on ageing and health concerning sustainable development. The plan comprises an active international collaboration for the following decade.

The collusion is planned to be based on the cooperating partners of governments, civil society organizations, professionals of different areas, and the media. Apart from an observed incasement of elderly population, another reason for the initiation was rooted in the perceived inequality of older adults' socioeconomic background. The overarching aim of their cooperation is thus to contribute to older adults' quality of life by considering their surrounding environment as well.

4.Overcoming Ageism through an Intergenerational Lens

Intergenerational practice may function as a possible means of promoting active ageing (Kaplan et al., 2017). Thus, in the following chapters, different aspects of intergenerational learning will be outlined. *Chapter 4.1*. will subsume the historical overview of intergenerational learning. Furthermore, important elements of cross-generational learning (*chapter 4.2*.) and key features of intergenerational programs (*chapter 4.3.)* will be presented. Apart from that, possible challenges of intergenerational practice will be discussed (*chapter 4.4.)*. Finally, processes of intergenerational programs will also be outlined including essential design elements of intergenerational projects (*chapter 4.5*.). The main aspects of these chapters identified through an examination of literature review dealing with intergenerational learning are summarised in Table 2.

4.1. Defining Intergenerational Learning: historical overview

Intergenerational (IG) learning has gone through significant changes over the past decades being impacted by various approaches (Newman & Hatton-Yeao, 2008). Thus, there exists no unified definition describing the notion of intergenerational practice. Based on most recent studies, however, intergenerational learning refers to "initiatives that increase cooperation, interaction, or exchange between any two generations, and which involve the sharing of skills, knowledge, and experience" (Ventura-Merkel & Lidoff, 1983, cited in Findsen & Formosa, 2012, p. 5).

The concept of intergenerational learning started to emerge in the second half of the 20th century. However, it existed in a rather informal setting within a familial context. These primary forms of exchange within the family were directed to transfer the knowledge and values from one generation to another. Therefore, in the first instance, nuclear family members of different generations were involved in intergenerational learning processes (Hertha & Formosa, 2014).

Nevertheless, at the end of the last century, as explained by Newman & Hatton-Yeo (2008), two major demographical changes occurred that led to the rise of a new, broader approach towards intergenerational learning. A possible reason for the emergence of the new model can be related to the relocation of families in search of better work opportunities. Since these employment chances were usually further away from younger adults' original location, long distances emerged

between family members of different generations. Consequently, they had fewer opportunities for familial exchanges having a decisive impact on the social interconnection of both the younger and older population. In addition to that, due to the changed social conditions, several other structural changes occurred within the nuclear families as well that resulted in the increasing number of families with two working parents, as well as that of single working parents.

Reflecting on these demographic transfers, numerous initiations emerged with the overarching aim of finding new platforms which may aid modern societies in overcoming barriers caused by industrial development (e.g., Newman et al., 1985). Thus, there emerged several initiatives that focused on the evolvement of extrafamilial intergenerational learning experiences, which concern the establishment of connections between non -biologically related people (Newman & Hatton-Yeo, 2008). These intergenerational programs became available in educational institutions, civic organizations, or workplaces offering formal, non-formal, and informal learning opportunities for participants of diverse generations. (Kaplan et al., 2017).

As Newman and Hatton-Yeo (2008) highlighted, although colorful in terms of the content, all of these programs had the main aim of uniting people of different generations so that they can become involved in meaningful activities and learn from one other. The overall aim of such programs is thus to generate and reinforce social cohesion among people of different generations by obtaining a higher level of understanding and personal acceptance.

Notably, intergenerational initiatives were also supported by multinational organizations such as the United Nations (2002), World Health Organization (2002), and International Longevity Centre (2015) (also in Kaplan et al., 2017). These organizations were dealing with creating and implementing strategies concerning intergenerational cooperation, solidarity, lifelong learning, or active aging, Additionally, there emerged several changes in regulations and policies, such as the European Parliament's (2005) declaration on the representation of the rights of future generations and intergenerational justice in EU decision and policymaking that was also directed to promote cross-generational interaction.

Significantly, a distinction can be observed in terms of how intergenerational programs are created and implemented in different parts of the world. For instance, while in Africa the overall focus is still on intergenerational learning within families (Thang et al., 2003; Adjaye & Aborampah, 2004 as cited in Kaplan et al., 2017), in Western countries there is a continuously increasing number of

programs that concern extrafamilial intergenerational exchange practices (Adjaye & Aborampah, 2004 as cited in Kaplan et al., 2017; EAGLE, 2007; Thang et al., 2003;),

In spite of those differences, the overarching aim of all the intergenerational programs is to highlight the notion of continuous development and mutual support of people through intergenerational interaction. As proposed by Findsen & Formosa (2012): "people may have different needs and interests at differing stages of their careers, which persons from different generations may help one another in acquiring" (p. 174).

4.2. Defining intergenerational learning: key elements of definitions

As presented in the previous chapter, there is a growing number of research related to intergenerational learning (e.g., Kaplan et al., 2017). Thus, numerous definitions have emerged, each of which underlining different aspects of intergenerational practice (cf. MacCallum et al., 2006).

Nevertheless, mutual aspect constitutes the overall aim of exchanging knowledge, skills, and experiences between two generations (Findsen & Formosa, 2012). Furthermore, based on the overlaps between the different approaches, intergenerational learning concerns learning opportunities that "may arise in any range of contexts in which young people and elderly people come together in a shared activity" (Newman & Hatton-Yeo, 2008, p. 32).

As outlined by Brown and Ohsako (2003) there exist numerous programs that obtain the overall aim of promoting learning engagement between different generations. Hence, there emerged several important elements and prerequisites that need to be concerned so that a learning activity can be considered intergenerational.

First of all, those involved in this program are supposed to represent at least two generations that had not been closely connected to one another (Knight et al., 2018). Also, the overall aim of their gathering needs to concern increasing knowledge about each other's generation (MacCallum et al., 2006).). That is, during this process, participants are supposed to gain a deeper understanding of the other generation's life circumstances including -inter alia- important historical, political, or social aspects (Newman & Hatton-Yeo, 2008).

Subjects of intergenerational programs are also expected to meaningfully exchange information and experiences in order to obtain new skills as well as expand their own knowledge and understanding (Brown & Ohsako, 2003) As for the maintenance of the learning process, a further important element of intergenerational practice concerns the significance of promoting cooperation during the study procedure (MacCallum et al., 2006).

Prior research dealing with intergenerational learning has also stressed the importance of mutual benefit gained through intergenerational practice (Kaplan et al., 2017). It was found that there can be different levels of involvement. In this regard, a distinction was created between two concepts called *doing for* and *learning with* (cf. Newman & Hatton-Yeo, 2008). The first one refers to programs in which young people are exclusively helping the elderly, whereas the latter places an emphasis on mutual cooperation between members of different generations (MacCallum et al., 2006). In line with that, several works of literature dealing with intergenerational practice underlined the notion of reciprocity and claimed that research of this field perceives intergenerational learning as beneficial for both older and young participants (e.g., Aemni & Moonghai, 2017; Findsen & Formosa, 2012; Mosor et al., 2019; Newman & Hato-Yeo, 2008)

Further, intergenerational practices can take place in diverse settings, meaning that there are no definite places specifically designated for these programs. These exchanges can happen in diverse contexts including various educational institutions, voluntary or governmental organizations, sports clubs, as well as various formats of cultural or religious groups (Martin et al., 2010).

To summarize, it can be stated that intergenerational practices are key to providing learning opportunities for people belonging to diverse generations (Kaplan et al., 2017). It is also believed that extensive time spent with each other will help participants of different generations develop a deeper understanding of the other counterpart (Aday et al., 1991). This will enable people of different generations to find mutual aspects and take advantage of different experiences (MacCallum et al., 2006).). Also, people presenting younger generations will gain similar experiences of the elderly, hence it is of great value to understand various issues that they may encounter in their later years by learning from older people’s life experiences (Leedahl et al., 2020). At the same time, older adults can also learn from their younger counterparts that will help them develop and apply comprehensive strategies of active and successful ageing (Findsen & Formosa, 2012)

4.3. Possible benefits and intended outcomes of intergenerational programs

The main aim of intergenerational exchange programs is to create a successful project which has a positive impact on all participants. The overall purpose of these initiatives is thus to offer members of younger and older generations purposeful and mutually beneficial activities (Mannion, 2012).

Prior research has shown that there are numerous benefits related to programs assisting cross generational learning obtaining positive impacts on the old and the young (e.g. Aemmi & Moonaghi, 2017). These benefits and intended outcomes were investigated in different ways by applying either questionnaires (Jarrott, 2019 Skropeta et al., 2014), interviews (Corrigan et al., 2013; Sanntini et al., 2018), or qualitative-driven surveys (Thomson, 2008).

According to MacCallum and his associates (2006) there are three main types of possible benefits that different generations could attain by attending successfully planned intergenerational programs. These are related to the individual, relational, and community aspects of benefits.

The first main category of the possible benefits is with regards to the components affecting the individual concerning new skills and competences one could acquire based on attending such programs. It was found that participants of intergenerational programs experienced an increased level of self-perception that also impacted their ability to execute different courses of actions (Morita & Kobayashi 2013). Intergenerational exchange programs were also found to have a positive effect on the enhancement of participants 'mindset (Aemmi & Moonaghi, 2017). Older adults in particular, gave an account of greater openness and a higher level of flexibility of thinking (Kenner et al., 2008). In addition, an increased level of knowledge about the possibilities of successful ageing was noted as a possible benefit (Morita & Kobayashi, 2013). In the case of this particular age group, Jarrot (2019) listed the intended outcomes with regards to the development of skills concerning creativity, decision making and problem solving. As for the possible emotional gain, the development of their experienced independence and positive mood were also listed as intended benefits (Santini et al., 2018). Further possible outcomes were noted with regards to older participants' development of motor skills (fine and gross), alertness and sensory stimulation. Other benefits were related older adults' subjective well-being (Santini et al., 2018). That is, IG programs were found to enable older adults 'a relief from the sense of isolation and the subsequent

depression and helped them experience an increased level of social inclusion (Skropeta et al., 2014).

Notably, among the individual components, Jarrott (2019) in his research, listed different intended outcomes with regards to the cognitive and physical aspects of learning concerning young participants attending IG programs. As for younger people's cognition, the author listed aspects that were related to the participants' development of expressing and experiencing their emotion in an effective way. Another intended outcome was found in connection with the enhancement of problem-solving skills (Leedahl, 2020). Possible physical benefits subsumed the development of their fine and gross motor skills and sensory development (Mosor et al., 2019). Also, according to Tierney and his associates (1995) that investigated cross-generational initiatives concerning different aspects of prevention, younger participants of IG programs were found to be less likely involved in violence and with the increase of their knowledge about the topic, they were also less possibly to use illegal substances after the end of the program.

As for the relational aspects, referring to the possibilities in the enhancement of interpersonal relationship between both parties, after interacting with the other generation and establishing learning opportunities, participants gave an account of acquiring a greater care and deeper understanding of the other generation. This contributed to the disappearance of the damaging and false stereotypes and stigmas and helped the natural acceptance of a person from a different age group (Santini et al., 2018). Whitin these programs, participants noted about being able to construct bonds between generations and establish the common ground by giving advice and help with finding a solution by means of sharing their own experiences (Kendel et al., 200). The new relation between generations could show both participants a novel point of view of traditions and values by exchanging their skills, knowledge and gaining a deeper insight of the life of the other generation (Mannion, 2012). For instance, older adults were found to learn about new technologies and the changing social structures from the younger counterparts and thus gaining a better understand of technological influences in today's society (Leedahl et al., 2020). Furthermore, for older people these programs were found to create an opportunity to act as a role model for the younger generation. (Aemmi & Moonaghi, 2017) For younger people maintaining cross-generational relationship contributed not only to the improvement of their academic performances and their attitudes towards learning and developing themselves, but it also led to the evolvement

in their attitudes towards older people (Corrigan et al., 2013). That is, in the course of the IG projects, younger participants reflected on obtaining a deeper empathy towards the other generation, which also helped them gain a greater sense of social responsibility (Holmes, 2009; Leedahl, 2020). It was also found that people participating in intergenerational programs usually have a feeling of being valued in a community and have a growing sense of self-worth after the end of the program (Morita & Kobayashi 2013).

The third type of benefit is in relation with the development of communities. As proposed by Findsen and Formosa (2012), one of the most important benefits are related to the augment of social capital which engenders bonding and bridging of social networks. In this context, bonding networks refers to the type of civic engagement that brings together the community obtaining similarities in different aspects in their lives by bridging the gap between different generations.

One of the key factors of community development through intergenerational learning is helping the generations (both young and old) realise their socio-economic interdependence. This can create a sense of belongingness, a better cohesion and connection within the community (Morita & Kobayashi, 2013). Possible outcomes regarding the community benefits concern *empowerment*, which according to Findsen and Formosa (2012) is a concept that refers of the "process enabling excluded and marginalise groups to exercise greater autonomy in decision making" (p.176.). With the help of successful intergenerational programs, one can create a strong, inclusive society for all age groups and develop communities' assets and capacities through promoting healthy relationships and culture. All these actions within the community can also lead to challenging damaging stereotypes existing inside each individual generation thus creating a future where all of the generations can live together in a greater symbiosis (Leedahl et al., 2020).

4.4. Key features of successful programs

There is an increasing number of intergenerational programs each of which obtaining unique features based on the purposes of the different projects (e.g., Corrigan et al., 2012; Mannion, 2012; Skoperta, 2014). Nevertheless, there are important features that need to be considered while planning intergenerational programs

An important element concerns the stakeholders of intergenerational learning projects and refers to the obtaining of competent as well as committed leadership and staff (Ventura-Merkel, Liederman, Ossofsky, 1989) The skills of the participants who deliver the program and the staff are key to successful learning outcomes. Hence, continuous professional development is considered essential for them in order to deepen their knowledge about managing both generations in an effective way (Springate et al., 2008).

As for the participants, it is of considerable significance to select and engage younger and older of different demographic backgrounds in order to create an inclusive learning environment (Martin et al., 2010). For conversation starters, finding a common interest or goals can play an essential role, which can help participants create a more comfortable atmosphere at the beginning of the intergenerational exchange project (Ventura-Merkel et al., 1989).

Another important feature regarding the participants of the project is to plan the entire program with an eye to the existing needs and interests of the participants. A comprehensive needs analysis is thus vital for the planning phase of the program. In addition, successful intergenerational programs should be asset-based, that is, they are supposed to be grounded in a solution-oriented approach concerning the potentials of each participant instead of focusing on individuals' weaknesses (MacCallum et al., 2006).

Apart from that, activities in the program are supposed to be planned strategically and promote a flexible learning design by providing the participants with increased involvement in the planning and designing processes (Springate et al., 2008).

While organizing the program, another important feature includes convenient transportation, especially for older, retired people, and a welcoming venue, obtaining a comfortable learning environment for all participants (Martin et al., 2006) that also considers the changed physical capabilities of older adults (Greilberger et al, 2013).

Nevertheless, the long-term goal of these programs is usually related to sustainability which depends on stable funding and most importantly constant monitoring and evaluation of the program that considers all participants and stakeholders too. Significantly, continuous reflection can contribute to other future intergenerational projects as well (Springrate et al., 2008).

4.5. Challenges facing intergenerational programs

Apart from presenting the key features of successful intergenerational programs, it is also of great significance to outline the possible impediments and challenges related to IG initiatives.

Regarding the planning phase, possible challenges can be rooted in the absence of well-defined project plans. This can also contribute to unstructured learning settings having a possible effect on participation-demotivation, considerably impacting the long-term sustainability of the project (Martin et al, 2010). Thus, obtaining a well-planned project is of great importance (Kocarnik & Ponzettik, 1991).

Another challenge that could appear is related to selecting participants for the program, the procedure of which may be time-consuming requiring a greater number of staff members. Hence, it is of great importance to focus on recruiting people (especially older generations) in an effective way based on efficient sampling methods (cf. Martin et al, 2010) Furthermore, regarding recruiting, older adults' lack of interest in the programs and their lower level of self-concept regarding working with younger people also ought to be taken into account (Orth et al., 2010). Additionally, for older people's participation, external conditions can be also listed as possible challenges. It is proven that they are more likely to participate if the programs take place during the festive season or in the summer holidays in order to foster social stimulation in these periods of time. It is thus of great significance to create a balanced view of the different needs and probable inhibitions of the older generation (Findsen & Formosa, 2012).

As for the selection of younger people, there are other factors and challenges that need to be considered. For instance, younger adults (of 18-24 ages) may obtain stereotypes about people of older generations (cf. Aemmi & Moonaghi, 2017), and without a sufficient amount of knowledge about the possible benefits of intergenerational programs, younger generations can feel uncertain about their willingness to participate in such initiations (Ventura-Merkel et al., 1989). Another problem can be rooted in the demanding schedule of younger participants that can prevent them

from taking part in such extracurricular activities. Hence, paying special attention to raising younger participants' awareness about the possible benefits of the programs and aiding in their full participation is of great importance (Martin et al.,2010).

While planning the activities, it can cause difficulty to consider the different needs and motives of the two generations, for there may be substantial differences in the learning behaviour. For instance, while older people prefer a more structured learning environment (Greilberger at al., 2013), their younger counterparts would favour a more informal learning setting. (Martin et al., 2010). Thus, it is important to plan sessions by considering learner diversity (Springrate et al., 2008).

A further challenge includes funding-related issues; hence it is of great significance for the logistic organizers to consider both short-and long-term funding potentials in order to maintain sustainability in the long run as well (Ventura-Merkel et al., 1989).

Last but not least, considerable challenges can be related to the lack of mutual cooperation among the working partners. For this reason, focusing on deepening their commitment and understanding could contribute to a better collaboration of the staff working on the project (Martin et al., 210).

4.6. Process of intergenerational practice

As outlined in the previous chapters, there is a vast number of projects aiming to foster intergenerational exchanges all over the globe (e.g., Mac Callum et al., 2006; Martin et al, 2010; Mossor et al., 2019). These initiatives can occur in different environments and set-ups, however, they all have a common goal to increase interactions between young and elderly, as an increasing amount of research has proven that numerous benefits are arising from such interactions (e.g., Corrigan et al., 2012; Mannion, 2012; Skoperta, 2014). In this part of the study, we will outline various program designs that can be applied in order to promote intergenerational exchange projects.

In his article Holmes (2009) presented a possible program design that was applied in intergenerational learning project. The author outlined the different steps in designing such programs by focusing on the planning phase in particular. The program design included different steps that were directed to promote the planning phase of the intergenerational learning project. The first step subsumed goal specification in consideration of the overarching aim of providing

mutual support for both parties being involved in the project. The next step of the design included discussing the details of the project as well as the different ways the participants can maintain effective interpersonal communication. Finally, the last step was about identifying potential obstacles, issues that may come up during the implementation of the program.

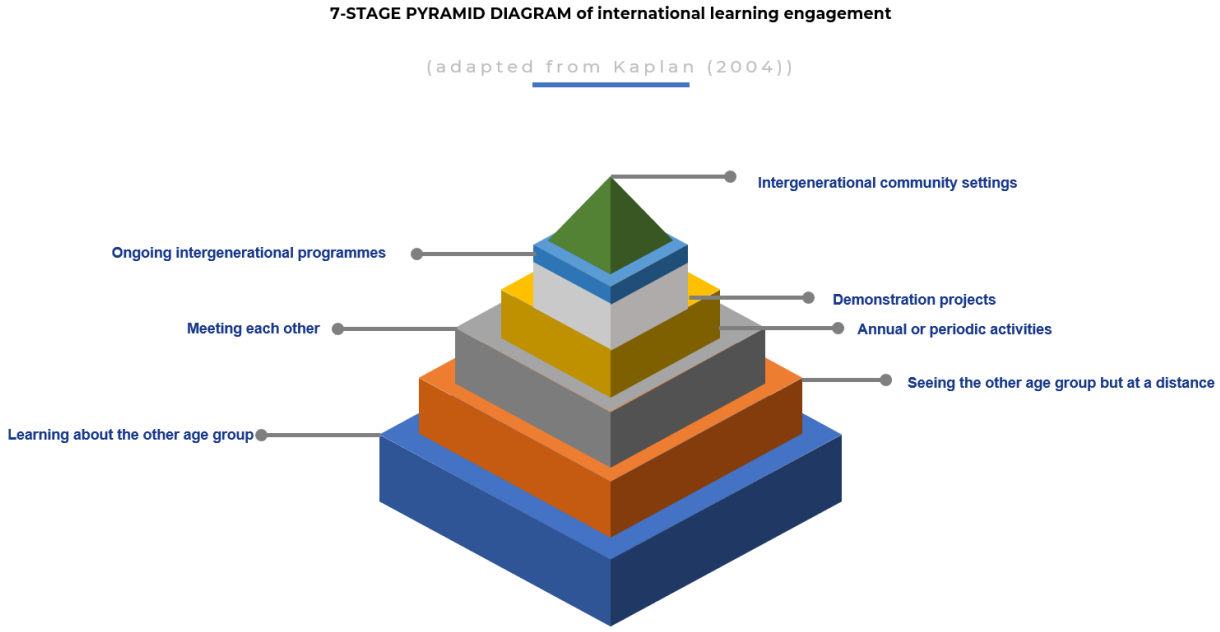
Another example of program design relating to intergenerational practice was provided by Dellmann and Jenkins (1997) that focused on creating a senior-centred model consisting of seven distinct, yet interrelated steps of program- development. In their work, the authors suggest starting intergenerational exchange programs with orientation sessions that obtain the overall aim of improving mutual understanding between the generations involved in the project. After that, a further step includes a needs analysis that is directed to collect information from senior participants about the activities they would like to be involved in during the program. This may be followed by a development program designed to foster instructional competencies of the employees delivering the project including the discussion of methodologies and activities that may foster intergenerational practices. Further steps concern the evaluation of the program that focus on the reflection of the participants concerning the project and their perception of the other age group.

A further program design was proposed by Aday and his associates (1991) that established the *Intergenerational Partners Project* which was aiming to create a more intimate involvement between participants of different generations. This example is focused more on the implementation phase of the initiatives rather than on the planning procedure. After establishing the main goals of the project, the program design includes steps that are directed at maintaining an initial discussion between the stakeholders of the project After creating a plan, a further step includes selecting the subjects of the program and splitting up participants into pairs with the help of a survey investigating their different needs and interest. After that, a further step includes facilitating discussions that are directed to help participants to share their views of the other counterpart and to deepen their understanding about the other age group. This phase is conducted in order to support the next stage of the project that concerns the initial sessions during which study pairs of different generations meet each other and agree on the topics that they intend to deal with during the program. As the authors outline, the final part of such projects is supposed to be directed to facilitate discussions about participants' experiences and impressions about the progran that can be conducted in an informal learning setting as well.

Based on the article of Kaplan (2004), it can be stated that possible benefits of intergenerational interaction, are highly correlated with the level of contact between the participants involved. In line with that, Beth Johnsons Foundation (2011) presented a comprehensive program design that includes seven different levels of contact (Figure 3), each of which is associated with the impact such interaction creates. The lowest level of contact (1) includes participants learning about the other age group, without obtaining any real contact with the other counterpart. The next level (2) concerns participants learning about each other with the help of different media such as letters or videos. A further level of contact concerns participants meeting each other (3) and keeping in contact with one another (4). The following step (5) refers to interactions that are shared between each group members. These include activities or projects that are conducted together. Ongoing intergenerational programs (6) are those that are already structured and integrated and may become a part of regular activities organised on a regular basis.

The overall aim of such programs is to maintain long-term sustainability; thus, the last level of contact (7) concerns the period of time when the values of intergenerational programs start being an integral part of the community and participants' social norms.

Figure 3. Seven-step model of intergenerational learning engagement



Notably, all these program designs include different aspects; however, common features subsume a detailed planning phase including the careful selection of the subjects as well as the preparation of the participants for the project. Further important elements are related to the actual implementation of the project that is directed to promote mutual understanding and respect of both younger and older by considering the potential reciprocal benefits of all participants.

Evaluation is also an integral part of intergenerational learning projects that can be ordered to measure the impact of the program by investigating participants' gained knowledge, skills, and perceptions.

Table 2: Key features of intergenerational learning (created based on the above-outlined literature)

<table>
<tr><th colspan="3">Key aspects of intergenerational learning</th></tr>
<tr><td colspan="3">

conscious two-way learning between generations
overarching aim: enhancement of co-operation and exchange of knowledge/experience/skills between learners of two or more generations (different age-groups)
diversity in setting (different settings)
diversity in engagement (different programs)

</td></tr>
<tr><th colspan="3">Intended outcomes of IG initiatives</th></tr>
<tr><td>individual components
increased self-perception (old, young)
cognitive stimulation (old)
sensory stimulation (old, young)
enhanced problem-solving skills (old, young)
reduced isolation (old)</td><td>relational aspects
increased understanding (old, young)
enhanced communication skills (young)</td><td>community benefits
social stimulation (old, young)
social(re)integration (old, young)
community cohesion (old, young)</td></tr>
<tr><th colspan="3">Key features of successful IG practice</th></tr>
<tr><td colspan="3">

effective recruitment and selection of participants
sufficient preparation of participants
comprehensive needs analysis
engaging activities: mutual points of interest
efficient organization and logistics
long-term funding and sustainability

</td></tr>
<tr><th colspan="3">Challenges facing IG practice</th></tr>
<tr><td colspan="3">

ineffective recruitment and selection of participants
lack of preparation
activities: lack of understating and engagement
inefficient organization and logistics
short-term funding

</td></tr>
<tr><th colspan="3">Process of IG practice</th></tr>
<tr><td colspan="3">Main elements IG engagement:

1. learning about the other age group
2. establishing connection
3. obtaining ongoing intergenerational programs
4. evaluating the impact of IG projects</td></tr>
</table>

5.Learning at an advanced age

In this chapter, we will outline general peculiarities of old-aged learning concerning cognitive and affective factors of their learning processes. Further, the notion of digital literacy among senior learners will also be discussed in the upcoming part of the desk research. Apart from that, certain motivational and impeding factors will be outlined in the case of old-aged learners attending continuing education program. Besides that, individual differences among this particular age group will also be highlighted as having a considerable impact on their learning behaviour.

5.1. Factors influencing third-age learning

Earlier investigation regarding adult education has revealed that there are certain demographic variables that can depict adult learners' learning behaviour (e.g., Derrick et al., 2007). It was found that certain affective aspects of adults' learning behaviour may be impacted by age. That is, old-aged learners' goal-directedness can be determined by different factors compared to younger generations, suggesting less specific learning aims in the cases of this particular audience (Lin & Sandmann, 2012; Furst, & Steel, 1986). Apart from that, previous research has shown that inter alia, age may have an impact upon certain aspects of adult learners' self-regulatory learning development (Price et al., 2010). Regarding the level of emotion-related behavioural control of learners (Bigdeli, 2010), it was found that older adults often face more intense learner anxiety compared to their younger counterparts (Alvarado, 2008 in Gómez, 2014). As for cognitive abilities, it can be noted that increasing age may have an impact on the efficiency of information processing having a considerable effect on individuals' perception memory, or language use (Baddeley, 2010; Korte, 2012; Stemmer, 2010). Further, it was found that the ability of concentrated attention may change with age. That is, older learners can encounter obstacles when maintaining attentiveness (O'Halloran et al.,2013) that may also have a considerable effect on their overall learning achievement (Grein, 2013).

The notion of using online resources at an advanced age has become an important issue, since concerning the digital use of adults, there is still a considerable difference between the younger and the older generations. Nevertheless, prior research has shown that in the past decade, older people have started to be more digitally connected (Anderson & Perin, 2017). Based on the research of Hansen and his associates (2020), approximately less than half of the investigated

senior citizens (aged 65-69) were found to use a smartphone or tablet on a daily basis: It was also revealed that there is an increasing number of older people (65+) using the internet regularly. Still, there is a great number of older adults that face difficulties when acquiring new information through digital materials, which affects the effectiveness of their online learning as well (Yoo, 2021).

5.2. Specifics of older adults' participation in learning opportunities offered by continuing education institutions

5.2.1. Drivers and barriers of continuous learning

The previous section has outlined certain peculiarities of old-aged learning in general. This part of the desk research is directed to describe learning-related specificities of senior learners that attend continuing education program by considering their learning motivation and different impediments of their participation. Individual differences will also be outlined concerning the learning behaviour of older adults attending continuing education programs.

As explained by Yi-Yin (2011), old-aged adults' motivation to engage in continuing education programs can be explained by several factors. First, older adults' learner motivation for participation in such programs can be related to their motives of sharing their personal narratives with their younger counterparts. That is, existing experiences accumulated during older adults' lifespan are thought to be beneficial to share with the other generations that are believed to promote younger adults' learning processes in different fields of education (Corrigan, 2011).

Another motivational factor can be in relation with the notion of social isolation that individuals start experiencing at an advanced age; hence participating in programs offered by higher educational institutions can also lead to the enhancement of social stimulation (Yin-Yin, 2011). In their study, Mulenga and Liang (2008) found that older participants' motivation was closely related to the potential of gaining intergenerational contact (also in Castro et al., 2014). Similarly, Romaniuk and Romaniuk (1982) that were also investigating the possible reasons of older adults learning engagement in such programs, support the idea that social connections play an important role in seniors' motivation of participation.

It has also been recognized that changes in attitudes and values can also be one of the main benefits and thus learning motives for the elderly to get involved in programs that include multiple

generations in particular. It was namely found that older adults' continued participation was in close relation to challenging their existing stereotypes as a result of the shared learning experience with the other generation (Castro et al., 2014; Kolland, 2008).

Personal interest -and seeking for personal growth were further important factors of older adults' engagement in such programs. Inter alia, in their study, Castro and his associates (2014) found that older participants gave an account of "a personal experience or enriching on a personal level" (p. 145) by virtue of their enrolment. Similarly, Dauenhauer and his colleagues (2018) that also researched older adults' motives of participation in continuing education program found that *self-satisfaction of learning* was one of the most re-occurring answers of the investigated old-aged learners. Furthermore, in their investigation Romaniuk and Romaniuk (1982) found that reported reasons were also related to personal interest in the given learning content and the potential of gaining new experiences. Increasing self-esteem and enhancing cognitive development were further important influential factors of older adults in attending post-school educational programs. That is improving self-concept by reducing the adverse effects of aging were also key to their willingness of participation. (Little, 1995).

Nevertheless, there are multiple factors that can cause difficulties for older adults to participate in post-school learning activities. According to ACE (2008) there are three main types of impediments that concern demographic, attitudinal, and structural issues of participation. Demographic barriers concern older adults increasing age which also affects their cognitive health resulting in the decline of their capabilities regarding their memory and perception (Baddeley et al, 2010) which impacts their learning engagement in enrolling in such education programs that offer intensive learning opportunities. A further demographic barrier can be in relation to older adults being of active working age. For them, scheduling time in an effective way so as to be able to participate in such programs might be of great challenge, Structural impediment concerns geographical issues implying that old-aged adults living in a rural area may not have the opportunity to find learning programs in their closer environment. Apart from geographical issues, financial problems can also prevent older adults from participating in such educational programs. As for attitudinal barriers, it was found that stereotypes of aging can negatively impact older adults' participation, implying that old-aged learners often experience a less supportive learning

environment that can prevent them from continued participation in post-school educational programs (Yin-Yin, 2011).

5.2.2. Individual differences

Although previous research has often considered older learners above 50 as a homogenous demographic group, according to certain investigations, there can be certain particularities within the age group of older adults (cf. Baddeley et al. 2010). Notably, there is only a small amount of research that discusses peculiarities among older adult learners who participate in continuing education (e.g., Cachioni et al, 2014). Prior investigations have shown that the main differences concern older adults' socioeconomic status or educational attainment. In certain cases, the majority of older participants attending continuing education program obtained a college or university degree (Dauenhauer et al,2018), while in other instances, more than half of the investigated older subjects had lower educational attainment (Tam et al., 2020). Significantly, most of the old-aged participants in post-school learning programs obtained a marital status and were of post-working age (Cacchioni et al., 2014).

Recent investigation dealing with older adults' continuing education has pointed out that there can be substantial differences within this particular population when researching their general learning behaviour by considering certain socioeconomic variables. In particular, distinction was made within the age range (below and above 65 years) and educational background (secondary, college, and university degree) of the participating older adults (50-80+). Based on preliminary results. motivational intensity was found to play a greater role in the learning behaviour in the case of older adults above the age of 65. Further, concentration-related self-regulatory skills were identified as key determinants to the effective learning of this particular age group compared to their younger counterparts. As for the educational attainment of the participating older adults, emotion control was found to play a more essential role in their learning in the case of old-aged learners that obtained a higher educational degree as compared to the ones having secondary educational attainment (Schiller & Dorner, 2020).

Prior research has also found that sociodemographic factors may also influence the digital usage of the examined generation concerning marital status or educational attainment. According to a

recent investigation, individuals with higher educational background and economic status had a greater willingness of using digital tools at an advanced age as well (Seifert, 2020).

As for research dealing with older adults attending higher educational institutions in particular, it has also been revealed that there are certain learning-related behavioural factors that may vary based on participants' age or educational attainment. It was found that higher educational background showed a close connection with enhanced learning motivation of knowledge development and active participation in the case of older adults. Nevertheless, old-aged participants who enrolled in these programs with the intention to increase social interaction obtained a marital status and lower educational attainment. The main motive of attending such educational programs by virtue of spending free time more profitably was closely linked to single and/or widowed older adults with lower family income (Cachioni et al, 2014).
These findings suggest that this particular audience (50-80+) is considered heterogeneous when being investigated from the above-outlined perspectives of learning. Thus, learning activities that support adult learning development should be adjusted to these fine differences.

5.3. Pedagogical implications for instructing older adults

The above noted influential factors concerning old-aged learning, such as changed motivational behaviour or cognitive capabilities as well as their level of engagement with digital technology need to be considered when instructing senior learners (Berndt, 2003). Hence, in the case of this particular age group, activating prior knowledge is key to their comprehending and integrating new information (Delaud et al., 2012), which can also contribute to their learning engagement (Berndt, 2003). Furthermore, carefully constructed instructions are also important educational elements that may support the attentive performance of old-aged learners (Commodari & Guamera, 2008). Apart from that, in order to promote older adults' retention, regular repetition (Greilberger et al, 2013), as well as distributed practice, are also considered an essential part of the education of this particular age group (Baddeley et al., 2010). In order to support older adults' interaction with web-based study materials, the instructor may consider using online resources that offer multimedia elements in order to promote older-adults comprehension (Ochel, 2002). Furthermore, clear menus and options and included help sections which can be used in cases of technical issues are essential elements of computer-or mobile-assisted learning in the case of older

adults. It is also important that such resources obtain customizable settings the audio-visual effects of which can be changed depending on the learners' individual needs (Chen, 2016). Apart from that, individual differences also need to be considered that can be based on older-learners socio-educational background. This may imply that promoting learner motivation in an advanced age (above the age of 65) is of great significance, which can contribute to individuals' learning development. Further, in the case of learners above the age of 65, enhancement of attentive performance can have a considerable effect on their learning process. Also, effective management of learning-related emotions can have a positive effect on older adults' learning development in the cases of older adults obtaining a higher educational attainment (Schiller & Dorner, 2021) All these aspects are key to the effective instruction of the elderly (Greilberger et al, 2013), which can also promote learning in a mixed-age group (Boulton-Lewis, 2010).

6. Programs that exist to support intergenerational learning

This chapter presents a summary of selected intergenerational learning projects taking place in different parts of the world. Therefore, several examples from Australia, Asia, the United States, and Europe will be outlined concerning prominent IG programs. The aim of the chapter is to describe a great variety of prominent cross-generational initiatives by outlining information about the participants, the intergenerational program type, and the organization of the project. Although differing in nature and scope of activities, all of the programs included in this overview have the same basic premises and aim to establish frameworks for intergenerational exchanges so that previously discussed benefits of intergenerational exchanges may arise. That is, all of the projects were designed to involve members of the younger and older generations with the overarching aim of helping them exchanging different knowledge, skills, or experiences.

Australia

There is a great number of intergenerational programs that have been implemented in Australia. In the course of the *Bankstown Oral History Project*, high school students were paired with old-aged community members from various cultural groups. The interaction lasted for approximately two hours during which students were conducting interviews that concerned investigating the different stages of older participants' life. Later on, based on those interviews, stories were written and shared at a public organisation attended by participants of both generations (Maccallum et al., 2006).

In the course of the *Radio Holiday* project, young people from different schools and community centres were recruited to explore disappearing 'shack communities' of the coast of Tasmania. These shack communities are disappearing as the pressure on coastal development intensifies and the face of urban and regional development changes. During the program, participants contacted older people from the community and listened to their stories based on which, subsequently, performance, film, visual art, and a series of radio plays were created (Maccallum et al., ibid).

Another prominent IG program in Australia was the *Yiriman Project*. It was initiated by Aboriginal elders in the West Kimberley who were concerned about younger generations harming themselves

with different types of stimulants Thus, they decided to create an organization that would involve different members of the community, including older and younger ones that participated in different trips to the countryside over the course of the project. These programs enabled older participants to share their knowledge with young people about the possible consequences of drug addiction in a more informal context. The intended outcome of the program was to raise younger participants' awareness about the physical and mental effects of drug abuse (Maccallum et al., ibid).

As outlined by MacCallum and his associates (ibid), a school volunteer program was based on a one-to-one mentoring project with the involvement of senior citizens supporting young individuals who were facing different types of learning difficulties. At the beginning of the program, the conversations were related to learning, however, the scope of discussions was expanded, and the elderly, thanks to their experiences and knowledge, were also able to support children to increase their self-esteem and improve different problem-solving skills as well.

Another example of IG initiatives was the *Intergenerational Playgroup Program* (IPP), which took place in an aged care facility. In this program, three age groups were involved: elderly/people that suffered from dementia and lived in a nursing home, children, and their guardian (parent/grandparent). The overall aim of the program was to connect, socialize and consequentially, improve the self-esteem and dignity of older adults, as well as to raise awareness of the members of younger generations about the availability of these services that can support senior citizens (Skropeta et al., 2014).

United States

In the US, Generations United[1]is a powerful network of organizations and individuals brought together with the overall goal to improve the lives of all generations through intergenerational programs and activities. They organise and coordinate a great variety of projects, construct public policies, and provide technical assistance to communities through their network of experts.

[1] https://www.gu.org/what-we-do/our-projects/

A prominent program is called *Link Generations*[2] , which is an organization aiming to educate younger generations about ageing, as well as to facilitate intergenerational programs that connect youth and older adults in different activities that can be beneficial for all those being involved. This organization offers several programs including online discussions about topics relevant for both young and elderly. These Intergenerational Programs are organised on a monthly basis during which students can deepen their knowledge about gerontology and have common programs with older adults that deal with music and arts. These activities are directed to improve cognitive stimulation, social interaction, and physical movement of both parties.

In *Lutheran Home & Harwood Place*[3], which is a childcare center, the notion of intergenerational programs has also been recognized. Therefore, the children have the possibility to become involved in interactions with the residents of the Lutheran Home. The activities are designed in a way to improve participants' social skills.

Bessies' Home Youth and Elders Program[4] was created in order to connect members of younger generation with the elderly living in a nursing home. The participating children were provided with training and guidance on how to conduct these interactions to ensure that the program would be delivered properly.

At *Jefferson Area Board for Aging* (JABA)[5] there is another intergenerational program known as FISH - Friends in Schools Helping. In this program, nurturing adults are connected with students in need of individualized attention. The activities are conducted in a traditional, classroom setting however also, since the outbreak of the COVID-19 pandemic, those programs are conducted online. The overall aim of the programs is to offer academic mentoring support for children in need.

[2] https://linkgenerations.org/programs/

[3] https://www.thelutheranhome.org/childcare-program/

[4] https://www.bessieshope.org/youth-and-elder-program/

[5] https://www.jabacares.org/fish

The *US Hebrew Medical School*[6], *Harvard Medical school Affiliate* offers a list of different intergenerational programs in their centres. For instance, in the Hebrew Rehabilitation Center, there is a project called Alzheimer's Buddies where students visit can Alzheimer's disease patients. These programs deal with the promotion of cooperative contact of both generations through music, reading, and arts.

Asia

Another example of IG initiatives originates in Asia, Tokyo. A program was created to promote IG learning that involved adults being older than 71 years and children of 5-6 years of age. The interaction between older people and children was taking place once or twice monthly for the duration of a maximum of 30 minutes. The participants were split into two groups. In one of the groups, children were playing games with the elderly, whereas, in the other one, members of the younger generations were singing and dancing with their older counterparts. As a result, both types of activities had a positive impact and were helping older people to reduce social isolation (Morita et al., 2013).

Europe

In Ancona, Italy the first intergenerational program of the country was introduced in 2012, which was called "Let's Re-Generate". A total number of 25 adolescents and 32 older adults participated in this project. While there were 32 older adults involved in the program, 16 of those were from the nursing home (they were those who needed support), whereas the remaining 16 adults were volunteers in the position of helping their peers who resided in the nursing home. The reason behind organizing such programs was to raise youngsters' awareness about the different ways of promoting active aging. Through different activities, the program aimed to tackle two main issues. The first one was to combat bias and stereotypes that younger people have about the elderly. The other one was to foster social inclusion of older people, improve their mental health, well-being as well as cognitive capabilities (Santini et al., 2018).

[6] https://www.hebrewseniorlife.org/services/programs/intergenerational-programs

In Vienna, Austria, an intergenerational health promotion program -based on psycho-motor activity -was created. In the program, 196 participants were involved from 16 different institutions including kindergartens and geriatric facilities. The participants were preschool children and their parents, older adults from 54 to 96 years old, and trainers. Young and elderly were connected through group psycho-motor interactions that were facilitated by the trainers. Various materials, such as cups, ropes, and newspapers were used for the sessions in order to improve participants' sensory, perceptive, motor, and social skills. There were twenty one-hour-long sessions in total, lasting for altogether twenty weeks. A significant improvement was observed in active engagement and well-being in the case of all the parties involved, including the participants and facilitators as well (Mosor et al., 2019).

In the United Kingdom, there is also an increasing number of prominent intergenerational programs. An example is related to a school-based project called *Age and Youth* in Kingston that concerned older adults mentoring younger learners. The project lasted for several years during which the elderly was helping children in different school-related topics such as literacy, numeracy, and science. The program had a beneficial effect on the students, for they could improve their learning, however, it was also advantageous for the elderly. Participating in this project resulted in perceived cognitive development and self-esteem in the cases of older adults (Springate et al., 2008).

The Bigger Picture was a community-based project designed with the overall aim to raise awareness of different generations' perspectives, to understand what their mutual points of interest and concerns might be as well as to assess possible age-related differences. The project lasted for three years, and each of those years had a specific subgoal in order to achieve the main aim once the program is completed. The first year was about the development of partnerships and establishing the foundation for the program. In the second year, workshops were planned in order to enhance intergenerational learning, The third year was about conducting workshops during which participants discussed the findings of the project (Martin et al, 2010)

The Active Ageing was another intergenerational program that primarily focused on health-related concerns. The area in which the project took place had serious issues with poor health services. During the program, young people were visiting vulnerable elderly and interactions were taking place with the help of community nurses. The conversations focused on exchanging knowledge

and personal experiences related to relevant issues in today's society. In addition to that, a one-hour-long health-related activity was also conducted together with the older participants. The project was created in order to establish connections and engagement between these generations, as well as to raise awareness of the importance of being socially active in all stages of life (Springate et al., 2008)

Generations in Action is an example of a mentoring program in which older people were sharing their knowledge and experiences with young individuals who needed support in their learning development. There were different types of mentoring programs, including general mentoring of children at the primary and secondary level, or special support concerning a given subject area. Besides young people, the elderly also benefited from these interactions in terms of their well-being and knowledge development (Springate et al., 2008).

Big Together was a creative arts intergenerational project which was established by five different neighborhoods in the UK. Each area had the autonomy to tailor the project based on the specific needs and interests of the participants. In all of those five different parts, children and the elderly were involved in various types of creative work, during which different media were applied such video or photography. The results have shown that these projects contributed to community development, however, they were beneficial for the young and the old as well causing perceived cognitive enhancement (Springate et al., 2008)

Common in the above outlined intergenerational programs was that although differences could be found in terms of the project type or the participants, all of these initiatives were directed to deepen the relationship between two generations by breaking down their stereotypical views and helping them exchange their experience and skills in different areas. Broad community and organizational support were also revealed to play a key role in facilitating such programs. In several cases, participants of both generations received training and guidance before the start of the program in order to be able to communicate effectively with the other counterpart. In addition to that, facilitators were also present during the program in cases younger children were involved in the project. The above-noted programs lasted for several months or even for years in order to promote effective intergenerational activities. In the course of the program, participants had the opportunity to meet once or twice on a monthly basis so as to deepen their relationship with the members of the other generation. Engaging activities that served mutual points of interest were found to act as

a means for relationship evolvement causing a possible development of reciprocity. Activities of the selected programs were in relation to academic mentoring support, organized trips, programs that involve psycho-motor activity or that of arts. For the most part, benefits were related to participants' enhanced self-perception, perceived learning development as well as increased social skills.

7.Programs that exist at Higher Education that support intergenerational learning

Reflecting on UNESCO's (1998) World declaration on higher education for the twenty-first century that promoted Higher Education remaining "open to those successfully completing secondary school or its equivalent or presenting any qualifications as far as possible at any age and without any discrimination" (p. 1); institutions of tertiary education started to set their mission to promote an individual's lifelong learning process over the course of the past decades (Sanchez & Kaplan, 2014). The aim of the present chapter is to outline prominent examples of intergenerational education programs that are based in higher educational institutions by focusing on organization, participation, and program-related aspects.

Europe

Statistics of Eurostat showed that in Europe there was a 55.4% augmentation of older learners (40+ years old students) between 2000 and 2010, mainly due to the introduction of the Bologna process (Kaplan et al., 2017). These escalating numbers resulted in more age-diverse classrooms in Higher Education Institutions (Castro et al., 2014). Different intergenerational learning opportunities in Higher educational settings proved that including older and younger students together into these programs has a great benefit to both generations. Prior literature has also shown that despite the differences in their education, there might be a lot of similarities regarding the two generations' learning interests (Hietaluoma, 2008).

One of the first European intergenerational initiatives based in higher educational context included a program called the *Integrated Second-cycle Program* at the University of Castilla-La Mancha in Spain in the academic year of 2004/2005. It was designed to involve older people in integrated learning programs. Participating in such programs included older adults taking part in various seminars that were originally designed for younger students. In the course of the program, older students were allowed to choose their own study courses and "co-work" with the younger university students. Later on, further IG initiatives emerged in Departments of Gerontological Pedagogy at the same university that also aimed to promote cross-generational learning in a formal context by involving students studying educational gerontology and older adults to participate in the same class. The overall aim of the initiation was to help younger students gain experience in their field of working with older people and deepen their knowledge about more practical uses of

the theories, they had learned during their studies. Notably, only a small ratio of older students decided to continue their studies in integrated programs after the first semester mainly because of the difficulty of the learning materials (Castro et al., 2014).

Another example of intergenerational learning-related initiatives in the context of higher education in Europe was founded at the *Irish University Intergenerational Learning Project* where under- and postgraduate students were mentoring older learners to promote their technological knowledge, for most of the older adults that showed their willingness to participate in the program were aiming to learn about the possible usage of technological appliances. In order to select students, at the beginning of each semester, a recruiting e-mail was sent out to all the university students describing the overall aim of the international project. Notably, a large amount of the applicants were international students which gave even more richness to the project. The volunteers were suggested to participate in mandatory training that was designed to help them gain more knowledge about intergenerational practices in general and to be informed about the main purposes and the planned activities of the upcoming IG program. As the project evolved, it is reported that most of the old-aged participants had decided to return for more advanced modules. With the help of the mentoring program older people gave an account of being able to acquire more knowledge about technologies. Besides that, they also considered having the possibility to interact with younger students as a beneficial effect of the program. This higher education-based intergenerational practice was also found to be beneficial for the younger generation as well, for participating students reported to have been able to enhance their self-confidence in their already existing knowledge about technology. Besides that, they also noted that they had increased their general self-esteem on account of the project (Corrigan, et al.2013).

In 2013 in Sweden, a project was developed with the intention to connect young students and entrepreneurs in order to develop younger learners' skills that can be used for business establishment. The program was conducted in a non-formal learning context, including lectures, workshops, and different activities which required a higher level of cooperation between the participating students and businessmen. As outlined above, the main goal of this initiative was to help students improve skills needed for business development. Besides that, enhancing networking skills was another important goal of the project. Notably, the program enabled students to establish valuable personal contacts, which contributed to the enhancement of their social capital. Significantly, by means of the program, the participating entrepreneurs became aware of the notion

of young and older generations complementing one another. They also became conscious about the fact that the program enabled a mutual exchange of knowledge and skills on account of which they could learn from the participating students as well (Bjursell, 2015).

Further European intergenerational programs were established by the ADD LIFE international project between 2006 and 2008. In the course of the program, mixed-age initiatives were conducted in different summer schools of several European higher educational institutions in order to develop intergenerational learning activities. In the summer school of Jyvaskyla, Finland, an IG program was designed with the overall aim of fostering cooperation between higher educational institutions and the local authorities. In this partnership, the local government supported the funding of the IG program by offering financial support for old-aged learners' participation fees. The main target of the program was to increase educational equality regardless of participants' age or socio-economic background. Another aim concerned motivating students to participate in the program that functioned as an integral part of participating learners' academic curriculum. The University resolved this problem by dividing the course into two modules with compulsory and optional parts; thus, participation in IG activities with the elderly was conducted on a voluntary basis (Hietaluoma, 2008).

At the Brno University of Technology in the Czech Republic, a cross-generational program was designed to promote older adults' knowledge about information and communication technologies. Organisers of the program gave an account of the importance of obtaining an effective marketing strategy for the program. Before the start of the project, organisers laid great importance on arranging events in which program facilitators could have a discussion with the prospective participants in order to deepen their relationship with the students. Participating students also received an orientation session, in the course of which they were given lectures about factors that can impact third age learning and possible ideas concerning learning together with older adults. Other discussions with participants of the younger generations were directed to raise learners' awareness about the potential of their participation in such programs. These included drawing on life-related experiences of older adults and gaining a deeper understanding of ageing (Vavřín & Halvorson, 2008).

The University of Graz in Austria of the same project reported how negotiating can be implemented into Higher Education setting through a case study where students and older people came together with the overall aim of answering questions on different topics while exchanging

their world views and existing knowledge. Program facilitators also organized workshops where students, experts, and senior citizens who were interested in the topics of Geography and Environmental System Sciences could have a discussion about sustainable development. The participation was directed to promote knowledge development of both parties, that is participants of the younger and the older generations (Ludescher & Waxenegger, 2008).

Another IG initiative which was constructed based on the ADD Life project was established at the University of Pécs in Hungary. The program focused on the issue of active ageing. The IG program was an integral part of the academic curriculum of the participating students studying Social Sciences and the project belonged to the module called *Civil Society*. The overall aim of the module was to enable students to gain deeper knowledge about the possibilities of active citizenship at an advanced age by scaffolding their learning process with senior citizens' sharing their own experiences (Pavluska, 2008).

United States

A further inter-generational-based project where students had the opportunity to participate in a program while also sharing their knowledge with older people was related to a collaboration with the Salvation Army (that provides social services for low-income older adults) and the Arizona State University (ASU) in Phoenix, United States. In 2013, a former student initiated the IG project as he perceived the desire of older people in his environment to learn about computer science and social media. Over the course of four semesters, the undergraduate students and their instructors developed relations with the participating older adults, with the help of the team of ASU that identified the core activities. Significantly, the process of carrying out and bringing spirit into these activities all depended on the students. These activities included workshops and more formal ways to learn about social media and technologies. Besides that, field trips and cultural events were also part of the IG project. In the course of a single year, (2013 spring- 2014 spring) there were 246 students who contributed more than 1800 volunteer hours. The students reported being able to develop their leadership and managing skills while coordinating the programs. Older adults received material benefits during the program (renovating rooms etc.) along with deepening their knowledge about computers besides having the opportunity to take part in socially stimulating events. (Corrigan et al, 2017).

The Elder service Partner was another project where generations had the chance to work together in a higher education setting. Students studying social sciences were involved in the program and the IG project functioned as a part of the curriculum. At the beginning of the program, facilitators of the IG project paired up sociology students and senior adults who then worked together to complete different community services in the course of the semester. Participants gave an account of becoming able to challenge their stereotypes concerning the other generations and build new social capital (Leedahl et al, 2020).

Another IG initiative in the US was established by the organisation called *Generations Together* and the *Association for Gerontology in Higher Education*. IG programs were established as an integral part of already existing gerontology courses (e.g., Management of Aging Services, Introduction to Gerontology). Data was collected from 230 students in 10 different universities and colleges. Differences were created based on the participating students' gender and socio-economic background. Based on the results, lower-class female students gave an account of relationship-based benefits concerning the course in particular. That is, they reflected on the beneficial effect of enlarging their social capital by virtue of their participation. In contrast, their male counterparts highlighted the importance of curriculum-based benefits concerning their knowledge of gerontology.

Asia

In Asia, in Hong Kong, the Elderly Academy project has been created to enhance intergenerational programs for seniors with the main purpose of promoting active and healthy ageing. The main reason for the initiation was related to the Hong Kong Special Administrative Region Government recognizing the importance of lifelong learning at an advanced age. The academy grew throughout various districts of Hong Kong, established by the local schools and senior service units, founding about 160 Elderly Academies, out of which six took place in post-secondary institutions. The institutions' main goal besides promoting healthy aging was to create an environment where the old and the young generations could be linked together through a series of purposive interactions. One of the post-secondary institutions offering seniors learning opportunities is the Education University of Hong Kong, established in 2008. The University offers 30-40 General Education courses mainly in arts, humanities, and social sciences for older students to participate every year,

however, due to the fact that these courses are also visited by younger students, organizers had to limit the number of senior students (Tam & Wu, 2020).

In conclusion, it can be stated that IG projects that are based in a higher educational setting, similarly to general IG initiatives, offer a great variety of programs and learning settings, including study opportunities in informal or (non)formal educational contexts. Nevertheless, courses that are originally advertised to younger learners cannot always function well with older adults due to the difficulty of the given material or the lack of effective organization. In several cases, intergenerational programs that are based at higher educational institutions, function as a part of an optional seminar being incorporated in the participating students' study curriculum. Thus, in certain instances, various workshops or guided discussions with older adults have been organised to enhance students' knowledge concerning the subject matter of the given academic course. Hence, the possible benefit of their participation is not only relationship-based but can also be related to younger participants' study field. Nevertheless, younger adults have reported being able to benefit through these programs not only concerning the given subject matter but also in relation to other aspects that deal with the affective domains of their learning such as the perceived enhancement of their self-perception. IG programs can be organized up to one course but can last for several semesters as well. Participating in these programs has been conducted on a voluntary basis and in several cases, participants have the opportunity to take part in orientation sessions that aim to outline the overall purposes of the program as well as the possible benefits of their involvement. In certain instances, younger participants are also be trained about the peculiarities of old-ages learning and about the possible ways of effective, generation-sensitive communication.

8. Conclusion

This final chapter aims to outline the main findings in relation to each of the above-noted research aim. Evidence from the literature review indicate that the notion of intergenerational practice is reinforced in several parts of the world mainly due to the increase of elderly population and the desire to promote active social participation of this particular age group (e.g., Kaplan et al.,2017). Key aspects of intergenerational learning constitute the main purpose of knowledge, skill, and experience- based exchange between two generations (Findsen & Formosa, 2012). Further aspects underpin the diversity in learning setting- and context as well as the content of the program (Martin et al., 2010). The various benefits of intergenerational exchange are also noted that might lead to fostering individual evolvement, interpersonal relationship-based enhancement, and community development (MacCallum et al., 2006). Key features of successful intergenerational practices are related to the selection of prospective participants (e.g., Corrigan, et al.2013), the amount of preparation of intergenerational exchange programs (e.g., Dellmann & Jenkins, 1997), and activities that foster the active involvement of all parties (e.g., Bjursell, 2015; Ludescher & Waxenegger, 2008; Mosor et al., 2019). Further, effective organization and logistics (e.g.Vavřín & Halvorson, 2008), as well as efficient sustainability, are key to successful intergenerational practices (e.g. Hietaluoma, 2008).

Case studies of IG programs revealed that there can be multiple generations involved in such programs and besides the notion of mutual engagement, raised awareness of a multigenerational society are also key aspects of cross-generational practices (MacCallum et al., 2006) that can be resulted in a great variety of learning outcomes (Leedahl et al., 2020). As for IG initiatives that are based in higher educational institutions in particular, in most of the cases, younger participants are included in the given training program that is involved in the IG project (e.g., Pavluska, 2008). Besides that, both relationship-based and curriculum-related benefits are important outcomes of such IG programs that belong to a higher education establishment (Monard, 2002).

In general, it can be stated that senior learners' motivation in participation in continuing education programs is primarily intrinsic. Thus, learning-orientation is one of the most significant drivers of their participation (Yi-Yin, 2011). Changed educational aims of older adults can be resulted in different interests and values (Corrigan, 2011) that can also enhance their willingness of personal

further development and their aiming at aiding future generations by sharing their existing experiences (Leedahl et al., 2020). Also, establishing contact with the younger counterparts is one of the most significant motives that can also lead to the decrease of their own conventional image about the other generation (Castro et al., 2014). Possible impediments to their participation in programs offered by higher educational institutions include several factors concerning demographic, attitudinal or structural issues (Yin-Yin, 2011). Individual differences are also important to be considered suggesting that age or educational attainment can have a considerable impact on older adults' learning behaviour (Cachioni et al, 2014).

Guiding questions to evaluate IG programs[7]

Module design and organization-related questions

- What was the main goal of developing and implementing your previous IG programs?
- What stakeholders were involved in the project?
    - . How effective was the partnership/working with other partners?
- What was the meeting venue of the IG programs?
- How long did the IG programs last?
- How often did the participants meet?
- How did you manage to sustain IG programs in the long run?

Module marketing and participant-related questions

- How did you stimulate demand for your module?
- How did you involve the target group in designing your programs?
    - How did you ensure an inter-generational mix of participants?
    - What age groups were represented in your programs?
- How did you map their motives to join your programs?

Module delivery: course design-related questions

- How did you help participants prepare for the program?
- How did you manage inter-generational learning?
    - What teaching methods did ensure active participation from both generations?
    - Would the learning experience benefit from a narrower or wider age range?
    - Were there any difficulties in ensuring a good social dynamic in the class?
    - Did the subject of the module raise inter-generational problems?
    - What teaching methods best led to inter-generational (two-way) learning?
    - What did really work in the class?
    - What didn't really work and needs to be looked at again?
    - What other challenges did you have to face over the course of those intergenerational initiatives?
- What were the intended outcomes/perceived benefits of your previous intergenerational initiatives?
- How did you evaluate the entire project?

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[7] The survey is an adapted version of Thomson, R. (2008). How to design evaluation methods for inter-generational learning. In A. Waxenegger (Ed.). *Adding Quality to Life through intergenerational learning via universities. The ADD Life European Tool Kit for developing inter-generational learning in higher education* (pp. 11). University of Graz. https://static.uni-graz.at/fileadmin/Weiterbildung/add-life_toolkit_en.pdf

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