



The implementation and effectiveness of intergenerational learning during the COVID-19 pandemic: Evidence from China

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Abstract

During the COVID-19 pandemic, many grandparents in China have spent more time with their grandchildren than they used to. When their adult children returned to work after a period of lockdown, many grandparents extended their roles from taking care of household tasks and looking after their grandchildren's basic needs to supervising their online learning and providing academic support. It has been a precious opportunity for both the children and their grandparents to get to know each other better and to learn from each other. During this challenging period of home learning, a Chinese initiative called the “Shaping Students’ Vacation Life Project” (SSVLP), which is led by the Shanghai Municipal Institute for Lifelong Education (SMILE) of East China Normal University (ECNU), conducted a two-month project that investigated intergenerational learning between grandparents and grandchildren (IL-GP&GC) across seven primary schools located in six areas of China. They explored topics such as pandemic prevention, health and fitness, traditional culture and information literacy. Following this, the co-authors of this article conducted an interpretive inquiry to explore how the participating primary schools implemented the IL-GP&GC project, and to understand its impact. Based on in-depth interviews with 11 teachers and 7 families (including 7 grandchildren aged 7–13, and their 7 grandparents aged 60–68), four main findings emerged: (1) both generations gained more health knowledge, life skills and values; (2) the older generation changed their learning perspective and behaviours; (3) the younger generation understood their grandparents more and cultivated the concept of lifelong learning; and (4) the relationships between grandparents and grandchildren became closer.

Keywords COVID-19 pandemic · intergenerational learning · implementation · effectiveness · learning society · learning family

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Résumé

Mise en œuvre et efficacité de l'apprentissage intergénérationnel pendant la pandémie de COVID-19 : résultats d'une enquête menée en Chine – En Chine, pendant la pandémie de COVID-19, beaucoup de grands-parents ont passé plus de temps que d'ordinaire avec leurs petits-enfants. Quand leurs enfants ont repris le travail en présentiel après le confinement, en plus d'assumer les tâches ménagères et de prendre soin des besoins fondamentaux de leurs petits-enfants, nombre d'entre eux ont étendu leur rôle à la surveillance de l'apprentissage en ligne et au soutien scolaire. Tant pour eux que pour leurs petits-enfants, ça a été l'occasion de mieux se connaître et la source d'un apprentissage réciproque. Pendant cette période difficile de l'école à la maison, un projet chinois appelé Projet d'organisation de la vie des élèves pendant les vacances (Shaping Students' Vacation Life Project/SSVLP), dirigé par l'Institut municipal de Shanghai d'éducation tout au long de la vie (Shanghai Municipal Institute for Lifelong Education/SMILE) de l'école normale supérieure de Chine orientale (East China Normal University/ECNU), a étudié deux mois durant l'apprentissage intergénérationnel entre grands-parents et petits-enfants (grandparents and grandchildren/IL-GP&GC) dans sept écoles primaires de six régions de Chine. Il s'est penché sur des sujets comme la prévention de la pandémie, la santé et la condition physique, la culture traditionnelle et la maîtrise de l'information. À la suite de cela, les auteurs de cet article ont mené une enquête d'interprétation pour examiner comment les écoles primaires participantes avaient mis en œuvre le projet d'apprentissage intergénérationnel entre grands-parents et petits-enfants et en comprendre l'impact. Cette enquête qui s'appuyait sur des interviews approfondies menées avec onze enseignants et sept familles (dont sept petits-enfants âgés de 7 à 13 ans et sept grands-parents âgés de 60 à 68 ans), a permis de dégager quatre constats principaux : (1) pour les deux générations, une amélioration des connaissances en matière de santé, des compétences nécessaires dans la vie courante et des valeurs a été constatée; (2) les anciens ont modifié leurs points de vue et comportements en matière d'apprentissage; (3) les jeunes ont appris à mieux comprendre leurs grands-parents et à cultiver le concept d'apprentissage tout au long de la vie, et (4) les liens entre les grands-parents et leurs petits-enfants se sont resserrés.

摘要

新冠疫情期间隔代学习的推进与成效:来自中国的证据 – 新冠疫情期间,中国的祖辈与孙辈有了比往常更多相处的时间。由于孩子父母的复工,许多祖辈的职责不再局限于做家务、照顾孩子的基本需求,还包括监督孩子进行在线学习和提供相应的学业支持,这是一个能够促进两代人之间彼此了解和相互学习的难得的契机。在这个充满挑战的“居家学习”时期,由华东师范大学终身教育研究院领衔的“学生假期生活变革项目组”(SSVLP)发起了一项为期两个月的“祖辈与孙辈间的隔代学习”(IL-GP&GC)的实践研究。来自中国6个地区的7所小学参与了本次项目,涉及疫情防控、健康与健身、传统文化和信息素养等研究主题。为了解项目的推进过程及其对孩子、老年人带来的影响,本文作者对参与此次项目的11名班主任教师和7个家庭(7名年龄范围在7-13岁的孩子和7名年龄范围在60-68岁的祖辈)进行了深度访谈。基于此,得出以下四点主要发现:通过参与此次项目,(1)祖辈和孙辈习得了健康知识、生

活技能与价值观; (2) 祖辈的学习观念和学习行为发生改变; (3) 孙辈更加了解祖辈并形成终身学习的观念; (4) 祖辈与孙辈间的关系更加紧密。

Introduction

Recent data estimate that about 54 per cent of total enrolled learners worldwide have been affected by school closures as a result of the COVID-19 pandemic (UNESCO 2020a). Most students moved to online learning and spent longer periods of time with family members than they used to. More than ever, the family has constituted a learning space, in which parents and caregivers have acted as primary guides to support their children's learning at home during this challenging time (UNESCO 2020b).

In China, 37.8 per cent of people aged over 60 live with their adult children and grandchildren, and 9.7 per cent live only with their grandchildren (Zhao et al. 2013). These grandparents are mainly responsible for taking their grandchildren to and from school, as well as caring for their basic needs, such as providing meals. This phenomenon is not only a result of cultural tradition but also a practice reinforced by state policies and socio-economic conditions (Zeng and Xie 2014), which force parents to look for work outside of their communities, leaving their children behind in their grandparents' care. A recent large-scale online survey¹ found that 33.2 per cent of elementary (primary) school children in China were living with their grandparents (defined as eating and living together) during the pandemic.

The pandemic may have contributed to greatly expanding the parenting responsibilities of grandparents, especially after their adult children returned to work after a period of lockdown. In these circumstances, grandparents have needed to oversee their grandchildren's online learning and homework, and provide as much academic support as they could. Meanwhile, this has also provided an important opportunity for grandchildren to learn from their grandparents, such as how to respect and take care of others, as the family is a place where both informal and non-formal education² can happen.

The concept of a *learning family* is a tradition rooted in all cultures around the world. It focuses on broader life skills and gives all family members opportunities to become independent, proactive lifelong learners³ (UIL 2017). Several attempts have been made to explore how family learning can be promoted between grandparents

¹ The online survey, which examined the status of online learning during the COVID-19 pandemic in China, was organised by the 7&8 O'clock Plan Team, which is composed of 17 students from Chinese universities and high (secondary) schools. The first author of this article, Keyi Lyu, is a member of that team. The report (which is in Chinese) was published at https://mp.weixin.qq.com/s/QNfal9rWass3_gT37uj3A [accessed 24 November 2020].

² *Informal education* refers to experience-based learning and is often unintentional. It occurs at home (e.g. learning to cook), during a leisure activity or in the workplace. *Non-formal education* refers to intentional learning which occurs outside of the formal education system (e.g. sewing classes).

³ Lifelong learning comprises learning throughout a person's life (from "cradle to grave"). Besides informal and non-formal learning, it also includes *formal learning*, which occurs in education or training institutions (e.g. schools). Thus, a *lifelong learner* starts learning before entering school, and does not stop after completing formal education.

and grandchildren in China. For example, a Chinese research initiative called “Shaping Students’ Vacation Life Project” (SSVLP)⁴ has conducted numerous family learning activities, such as assisting grandparents and grandchildren in learning skills from each other, grandparents visiting grandchildren’s primary schools and grandchildren visiting “universities for older adults”⁵ (Li and Guo 2018; Li and Lin 2019), with the cooperation of university researchers, and primary and secondary (high) school teachers.

To promote learning families, and the personal development of grandparents and grandchildren in such a peculiar time, the SSVLP team (which includes university researchers and all four co-authors of this article as well as teachers from seven primary schools located in six areas of China) launched a project at the beginning of the COVID-19 pandemic. The project was named Intergenerational Learning between Grandparents and Grandchildren (IL-GP&GC). The participating schools were from Zhejiang Province, Jiangsu Province and Guangdong Province in south-eastern China, as well as Yunnan Province in south-western China. Both rural and urban primary schools were included. Based on the IL-GP&GC project, the aim of the study we present in this article was

- (1) to explore how the primary schools implemented the IL-GP&GC project; and
- (2) to understand its impact.

In this article, we begin with a literature review on intergenerational learning and on the review-based theoretical framework we used in our study. Second, we explain why and how we used in-depth interviews to explore our two research aims. Third, we present the three implementation stages of the IL-GP&GC project. Fourth, we discuss four findings from the IL-GP&GC project for grandchildren and grandparents. And, finally, we discuss the benefits and limitations of our study.

Intergenerational learning

The impact of intergenerational learning on young people and older adults, and on their relationships

A large volume of published research describes the benefits of intergenerational learning for the young. These studies report that intergenerational learning improves young people’s attitudes towards older adults, promotes their academic achievement,

⁴ The Shaping Students’ Vacation Life Project (SSVLP) was launched in 2015. It is run by Jiacheng Li (the fourth author of this article) and supported by the Shanghai Municipal Institute for Lifelong Education (SMILE) of East China Normal University (ECNU). In the past few years, SSVLP explored various topics in winter vacation and summer vacation like Homework Reform, Family Reading, Children’s Well-being, and Home–School–Community Collaboration. For more information (mostly in Chinese, but some articles are in both Chinese and English), visit https://mp.weixin.qq.com/mp/profile_ext?action=home&__biz=Mzl2MTU3Mjk5MA==&scene=124#wechat_redirect [accessed 24 November 2020].

⁵ These are also known internationally as *Universities of the Third Age* (U3A).

and improves their interpersonal communication and cooperation skills, as well as their daily behaviours at school. For example, Christine Holmes (2009) interviewed 38 preschool children in the United States (US) and found that 50 per cent used negative words to describe their attitudes towards their parents. However, after participating in a one-year intergenerational programme, all children changed to using more positive words. In another American study that investigated the semantic (subtle) differences in ageing between 32 adolescents who participated in intergenerational learning, Melissa Powers et al. (2013) found that this type of learning can promote interpersonal communication and cooperation skills. Further, Sherry Cummings et al. (2002) conducted a curriculum-based intergenerational programme on the attitudes and behaviours of at-risk fourth-grade children in one school, also in the US, revealing that it was conducive to improving students' academic performance and daily behaviours in school. Her study also showed that most of the intergenerational learning intervention results lasted for one year or more; the longer they lasted, the more likely they were to have a deeper and more multifaceted impact on the young students. The intervention process in the study included an examination of school curriculum and evaluation. Overall, there seems to be some evidence to indicate that an appropriate intervention time, method and content jointly affect the multidimensional development of young people.

Several studies confirm that intergenerational learning is not only good for young people but also for older adults, in three main aspects: enriching health knowledge, improving quality of life and promoting awareness of lifelong learning. For example, Daniel George and Mendel Singer (2011) found that an intergenerational volunteering programme in the US reduced older adults' life stress and improved their quality of life. Scott Herrmann et al. (2005) report that intergenerational learning has a positive impact on the physical health, psychological development and social participation of older adults. Likewise, Di Ming and Jun Xu (2018) believe that intergenerational learning is beneficial for building a harmonious learning atmosphere, promoting older adults' awareness of lifelong learning and enhancing their ability to cope with ageing.

Most of the existing studies on intergenerational learning focus on the physical impacts and effects on quality of life. So far, however, there has been little discussion about the relationship between intergenerational learning and older people's spirituality. As Abraham Maslow (1943) proposes in his theory of human motivation, physiological security, belonging, love, respect and self-realisation are pursuits of human development. Thus, there is still a gap to explore in this research area.

A large and growing body of literature explores the way in which intergenerational learning might be able to reconstruct intergenerational relationships. Recent evidence suggests that intergenerational learning is able to encourage both young people and older adults to establish positive emotions, attitudes and values, help narrow the generation gap and foster an understanding of learning. An international survey conducted by the UNESCO Institute for Lifelong Learning (UIL) found that intergenerational learning could help promote cohesion among family members (Hanemann et al. 2017). Carol Burgman and Elizabeth Mulvaney (2016) provide a detailed explanation of the effect of intergenerational learning in enhancing mutual affection, and state that it has the potential to create reciprocal symbiotic

intergenerational relationships. Furthermore, Carmen Cabanillas (2011) asserts that intergenerational learning represents a type of *learning community*, which overturns the traditional one-way mode of learning and instead promotes two-way interaction between children and older adults.

Ways to encourage intergenerational learning

A number of studies have found that families, schools, communities and the government – among others – can play leading roles in developing intergenerational learning. Milada Rabušicová et al. (2015) found that families play a fundamental role in carrying out intergenerational learning. Andreas Hoff (2007) claims that intergenerational learning involves informal communication among family members to convey knowledge, skills, social norms and values. Carol Beynon and Chris Alfano (2013), along with Barbara Smith and Annette Yeager (1999), regard classrooms in communities and schools as important places for intergenerational learning. According to George and Singer (2011), and Cynthia Flash (2015), governments are also well placed to set up formal intergenerational learning institutions to promote this type of learning. For example, Intergenerational School, a community charter school⁶ in Cleveland in the US, is committed to providing lifespan-oriented programmes and delivering a curriculum about environmental sustainability and community health for both children and older adults (George et al. 2011). Another example is the Intergenerational Learning Center (also known as “Child Care at the Mount”), located at Providence Mount St. Vincent in West Seattle in the US, which provides a variety of activities for both children and older adults (Flash 2015).

It has been conclusively shown that schools play another important role in promoting intergenerational learning. Ann-Kristin Boström (2004) interviewed some older adults in Sweden, and indicates that schools can provide a social networking platform for intergenerational learning. Similarly, Robert Strom and Shirley Strom (1995) found that schools provide various types of educational cooperation projects for grandparents and children to participate in, and that different models of intergenerational learning gradually form in these projects. Cummings et al. (2002) note that schools can develop a formal curriculum that also considers older adults’ knowledge and perspectives.

Furthermore, as Joyce Epstein (2009) suggests, schools can influence students’ development through building partnerships with families, other schools and communities. Sally Newman and Alan Hatton-Yeo (2008), along with Julia Franz and Annette Scheunpflug (2016), illustrate how schools promote intergenerational learning by cooperating with other institutions. In addition, another research study (Strom and Strom 1995) points out that some schools offer courses to help grandparents understand how to build a friendly learning environment.

Compared with many developed countries throughout the world, community education and learning centres for senior citizens in China are not yet well developed.

⁶ Community charter schools in the US operate as both educational institutions and community centres.

Therefore, schools still play a major role in promoting effective intergenerational learning by combining family and community. For example, Xiaoming Ding's (2019) study suggests that schools play the roles of organiser and facilitator for intergenerational learning. In addition, Shuli Tu and Yang Wu (2020) found that teachers play an important role as researchers who can uncover grandparents' important nurturing skills and educational values. These studies confirm that schools play multiple roles as initiators, promoters and resource providers in intergenerational learning.

Intergenerational learning during the COVID-19 pandemic

Due to the impact of the COVID-19 pandemic, grandparents and their grandchildren have had more opportunities to live together, and some intergenerational learning projects have been implemented in families with the support of their schools. A number of recent studies have proved that intergenerational learning can be a way of mitigating the effect of pandemics, mainly through increasing health and hygiene knowledge and cultivating daily life habits.

During the COVID-19 pandemic, Tu and Wu's (2020) research found that schools have motivated grandchildren to help their grandparents increase their health knowledge and learn new life habits. Likewise, grandparents have also helped their grandchildren to learn some life skills. Research overviews, such as a UNESCO COVID-19 Education Response issue note entitled *Unlocking the potential of family and intergenerational learning*, prepared by UIL and UNESCO's Education Sector (UNESCO 2020b), have shown that in Pakistan, for instance, grandparents have strong learning needs and have been willing to learn basic literacy skills along with their grandchildren in order to improve their own abilities during the current pandemic. This suggests that intergenerational learning is not only beneficial for the two generations in terms of health knowledge, lifestyle habits, social skills and intergenerational relationships, but that it also contributes to alleviating the social crisis of older adults by acknowledging their value.

Overall, these studies highlight the need for research on the implementation and effectiveness of intergenerational learning during the COVID-19 pandemic, the topic we have investigated in our study. Findings from the above-mentioned studies also lead us to three conclusions:

- (1) intergenerational learning already provides some positive effects for young people and older adults;
- (2) compared with family and community, schools have advantages in promoting the development of intergenerational learning; and
- (3) there have been some practical cases of intergenerational learning occurring around the world during the COVID-19 pandemic.

Theoretical framework

In *ecology theory*, developed by Urie Bronfenbrenner, human development is affected by a series of concentric circles that represent *microsystems*, *mesosystems*, *exosystems* and *macrosystems*. Microsystems refer to the institutions and groups that most immediately and directly impact a child's development, including family, school and neighbourhood. Mesosystems consist of interconnections between microsystems, for example, between family members and teachers. Exosystems involve links between social settings that do not include the child. Macrosystems describe the overarching culture (Bronfenbrenner 1979).

As Epstein (2009) and some of the other studies described above demonstrate, schools can be a key driver in building partnerships that make a difference in students' development. Thus, the study we present in this article focuses on how school shapes the interrelationship between grandparents and grandchildren within a family, as well as how it creates a "new" mesosystem (linking contexts from one family to another, and from the family to the community). At the same time, inspired by cultural anthropologist Margaret Mead's (1970, 1973) concept of a *prefigurative culture*,⁷ we consider both grandchildren and grandparents as developers and learners, which places mutual learning and shared development at the core of our research.

Research shows that teachers can carry out three methods of intergenerational learning: learning in the family, learning in the class and learning in the community. To examine the effects of attending intergenerational learning on grandparents and grandchildren, our study explored two key components: individual development and grandparent–grandchild relationship development. As discussed above, individual development consists of cognitive and emotional development, while relationship development includes the way people know and treat each other.

Implementation of the intergenerational learning project

As mentioned earlier, at the beginning of the COVID-19 pandemic, the SSVLP team (including the four authors of this article) launched an action initiative of intergenerational learning (the IL-GP&GC project) in their WeChat⁸ group and invited schools to participate. Seven primary schools became involved, and formed their own WeChat group. Project implementation was divided into three stages: planning, practice and summary.

⁷ A prefigurative culture "is one in which younger generations teach the older ones, instead of the other way around" (Gibbons and Fanjul 2017, p. 38).

⁸ WeChat, like Twitter and Facebook, is one of the most popular mobile phone applications in China. People can use it to chat with friends, make phone calls, share moments, and organise group-chats and communities.

Planning stage: teachers as mentors, designers and coordinators

In January 2020, teachers involved in the IL-GP&GC project designed three main methods to implement the project according to school/class characteristics (e.g. cultural context, students' family backgrounds, school/class and community relationships, home and school relationships).

Method 1: Intergenerational learning in the family

Teachers Kang M. J., Fei L. M., Tu S. L. and Zhu L. J.⁹ developed the method for *Intergenerational learning in the family*. They invited grandparents and grandchildren to read or play games together or to learn skills from each other. For example, some grandparents learned how to use WeChat from their grandchildren.

Method 2: Intergenerational learning in the class

Teachers Ding X.M., Liu F. J., Sun J., Shen L., Zhang H. F. and Tang Y.Y. designed the method for *Intergenerational learning in the class*, All families associated with one classroom cohort¹⁰ focused their learning around one topic or similar topics, and then exchanged their experiences or findings.

Method 3: Intergenerational learning in the community

Teacher Li Y. L. designed the method for *Intergenerational learning in the community*. Grandparents and grandchildren learned together in surrounding facilities, such as community learning centres (which consist of a library and classrooms for nearby residents). For example, grandparents and grandchildren learned together about calligraphy, drawing and traditional Chinese opera in their local community learning centre.

Designing context-specific activities

As the IL-GP&GC project progressed, teachers needed to take on different responsibilities and design context-specific activities. When utilising Method 1, teachers acted as mentors to help each family understand what they could learn. In Method 2, teachers played the role of an overall activity designer and comprehensively considered the class context and the characteristics of different families. In Method 3, teachers and schools had discussions and worked with their local communities to

⁹ All names that appear in this article are pseudonyms.

¹⁰ Unlike pupils in most Western countries, primary (or secondary) school students in China are generally taught all subjects in the same classroom under the supervision of one *banzhuren* and several subject-specific teachers rather than in different subject-based classrooms. *Banzhuren* refers to a headteacher who is the key person in charge of the class, and responsible for teaching, managing, giving moral education, communicating with families (Gu et al. 2015) and developing a community of students (Li and Chen 2013)

ensure the project would be supported, for example, in the provision of venues and other resources.

In order to increase the quality of the IL-GP&GC project, teachers and university researchers met in webinars once a week to discuss some stage-based topics,¹¹ such as the implementation plan, staged effectiveness,¹² implementation problems and solution strategies.

Research methodology

Research team

Our research team for the study we are presenting here consisted of 36 members, including the four authors of this article. We were already working together in the IL-GP&GC project. In March 2020, we decided to conduct a study among a sample of teachers, children and grandparents who had already been participating in the IL-GP&GC project since January. The duration of our study was two months (March–April 2020).

Participants

To locate suitable participants for our study,¹³ we posted an online questionnaire on the IL-GP&GC WeChat Group to recruit teachers who were in charge of the IL-GP&GC project to participate in interviews. In the end, 11 teachers (all of them female) volunteered to participate. With their help, we successfully recruited seven families (including seven grandchildren, aged 7–13, and their seven grandparents, aged 60–68) who volunteered to be interviewed (see Table 1). Two of the grandparents (He's grandmother and Ke X.'s grandfather) could not speak Mandarin; when we conducted interviews with them, translation assistants (He's mother and teacher Ding X. M.) helped us complete the communication between Mandarin and local dialect. (To account for this, we used a rigorous meaning-based translation¹⁴ when analysing the data.)

¹¹ In the context of this project, *stage-based* refers to the chronological structure of the process at different points in time, i.e. the various stages the project was progressing through over the two-month period.

¹² *Staged effectiveness* refers to an increase in effectiveness every time the next stage is reached.

¹³ Our study received research approval and official permission from SMILE. Before conducting the online survey and interviews/focus groups, we informed all participants of the research purpose, research process, and the security and usage of their personal details (as well as sending them formal research application documents). As required by research ethics, we obtained consent from 11 teachers, 7 grandparents and 7 parents of the 7 students aged under 18.

¹⁴ For our study, we divided the *meaning-based translation process* into 3 steps. First, members of the research team transcribed the audio-recordings into Mandarin (Text 1). Second, researchers communicated with translation assistants to understand meaning in terms of local language use and local culture, and updated Text 1 to Text 2. Third, translation assistants communicated with two grandparents to revise the parts that were unclear or failed to express correct meanings due to different languages/local usage, thus Text 2 was updated to the final version, Text 3.

Table 1 Basic information about teachers and families who participated in our study

Primary school	Teacher (gender, teaching grade)	Grandchildren and grandparents (gender, age)
QuanX, Zhejiang Province	Tang Y. Y. (f, G 2) Tu S. L. (f, G 2)	Liu, K. (m, 8) & Liu K.'s grandfather (m, 63)
TongL, Zhejiang Province	Zhu L. J. (f, G 1)	Chen, C. (m, 8) & Chen C.'s grandmother (f, 68)
TaoY, Zhejiang Province	Fei L. M. (f, G 1)	Shuai, C. S. (m, 7) & Shuai C.S.'s grandfather (m, 60)
YuanH, Zhejiang Province	Kang M. J. (f, G 1)	Xu, W.Q. (f, 7) & Xu W.Q.'s grandmother (f, 62)
LongHT, Jiangsu Province	Ding X. M. (f, G 5, vice-principal) Liu F. J. (f, G 6) Sun J. (f, G 2)	— Ke, X. (f, 12) & Ke X.'s grandfather (m, 65) He (m, 13) & He's grandmother (f, 66)
YangJ, Guangdong Province	Shen L. (f, G 3) Li Y. L. (f, G 5)	— —
WuC, Yunnan Province	Zhang H. F. (f, G 6)	Lyu, F. (m, 12) & Lyu F.'s grandfather (m, 66)

Notes: f = female; m = male; G = grade.

All names that appear in this article are pseudonyms

Teachers Fei, Tu and Zhang were interviewed individually, while the other teachers were interviewed in focus groups.

All teachers are *banzhuren*s

Interview process

Considering the teachers' schedules, we designed individual and focus group interviews to be conducted by telephone and video conferencing. Individual interviews lasted about 30 minutes and focus group interviews about an hour and a half. At the beginning of the interviews we collected basic demographic information about the schools/classes and teachers – as well as about their intergenerational learning projects (including content, process and participation rate, among others).

We then invited teachers to participate in a dialogue about our research topic by asking the following questions:

- (1) How did you implement an intergenerational learning project?
- (2) What kind of barriers did you meet, and how did you overcome them?
- (3) Do you believe this project played any special/vital role during the COVID-19 pandemic? What impacts do you think it had on the participants?

The questions we asked the grandparents and grandchildren were:

- (1) What activities did you participate in with your grandparents/grandchildren during the pandemic? What motivated you to participate in them?
- (2) What benefits do you think the IL-GP&GC project has had?
- (3) What changes have happened to you or your grandparents/grandchildren? Do you think your relationship with your grandparents/grandchildren has improved after participating in the project?

All interviews – those with the 11 teachers (three individual and two focus group interviews) and those with the seven grandparents and seven grandchildren (interviewed in 7 grandparent/grandchildren pairings) – were audio-recorded and transcribed.

Qualitative analysis

Our study was an *interpretive inquiry*, which follows an exploratory and emergent qualitative research design where researchers select a data analysis strategy that best fits the information stemming from participants' disclosures (Packer and Addison 1989). We coded and analysed the interview transcripts using thematic analysis (Braun and Clarke 2006; Merriam and Tisdell 2015), because the interview data suggested clear commonalities among teachers' experiences of conducting the IL-GP&GC project, and among grandparents and grandchildren's experiences of participating in it. In *thematic analysis*, researchers identify, analyse and report patterns within the data, as well as their variations. Therefore, this strategy also enabled us to incorporate descriptions of the unique manifestations of shared feelings and development among our participants.

The following quotes¹⁵ from a grandfather and a grandchild/student whom we interviewed in our study indicate the importance of teachers and schools in promoting intergenerational learning.

I never participate in her schoolwork. If her teacher didn't "ask" us to participate in the project, how would we study together? (Ke X.'s grandfather)

I think this activity carried [out] by Fei [the class teacher] is very interesting. I never thought about learning anything from my grandma before. I thought she was the one who took care of me. (Xu W. Q., student)

Practice stage: making the project relevant to most of the families

In the practice stage, no matter which methods the teachers used, they encountered the problem of how to make the project relevant to most of the families. When using Method 1 (intergenerational learning in the family), teachers needed to consider the different characteristics of the families, then motivate each of them to participate. For the other two methods, the biggest difficulty was figuring out how to link different families together as a learning community and encourage them to learn together.

Given these difficulties, the implementation of the IL-GP&GC project adopted a practical strategy of "from one family to other families in the class". In the beginning, teachers selected some families to be the first group of participants and discussed the project with them. They based their selection on two criteria: (1) whether the family had a good, cooperative relationship with teachers over a long period of time; and (2) whether the family was willing to participate in the project. These families were called "seed families", meaning they were willing to be the first trial families in the project.

These families have been very supportive of my work. And as many adult children returned to work, their children did need the companionship and guidance of grandparents. (Tang Y. Y., teacher)

These families are famous as learning families in my class, and they are used to reading together in their spare time. So they are glad to have a try! (Li Y. L., teacher)

The second step was to promote the intergenerational learning project in class. Depending on the frequency of contact between home and school, the remaining families could be divided into two categories. The families who had occasional contact with teachers and usually imitated other families were named "shadow families", while those who never contacted teachers or attended school activities were named "standing-by families". In order to attract these two types of families to participate, teachers encouraged the seed families to write down their feelings and then shared them with other families in the class WeChat group. This successfully

¹⁵ All quotes have been translated into English for the purposes of this article.

inspired shadow families who wanted to participate but did not know how. As one grandmother said:

I didn't know grandparents and grandchildren could learn together until I saw the video of Sun's family. After that, I made up my mind to give it a try! (Xu W. Q.'s grandmother)

For standing-by families, this activity was an opportunity to actively encourage their relationship with the school. Teachers explained the purpose and content of the intergenerational learning project to each family on the telephone, to help them deepen their understanding of the project. One grandmother, who comes from a rural area, said:

The child's parents have been working outside for years. I neither read on nor use the smartphone. Thanks to the teacher Tu, I knew the project. My grandson taught me how to answer the phone and send messages. I taught him how to grow vegetables. It's unbelievable to me! (Chen C.'s grandmother)

Through the efforts of teachers, the proportion of project participants from each class eventually exceeded 90 per cent.

Summary stage: reflecting on the project

All participants were encouraged to summarise and reflect on their experience in the project. First, teachers encouraged each family participating in the project to write about their feelings and experiences. These materials have been reorganised, edited and presented in the project's *Intergenerational Learning Guidebook*,¹⁶ which helps to lay a solid foundation for subsequent projects. Most grandparents and grandchildren thought writing about the project was valuable.

Only when I wrote it down did I realise how much I had learned during the process. (Xu W. Q.'s grandmother)

I feel happy when I recall what we have learned from each other with my grandma. (He, student)

In addition, the university researchers encouraged the school teachers to contribute to academic papers to increase understanding of the project and how it can support families. This will also assist in developing the intergenerational learning project in future.

By writing, I understand myself and the parents better, which makes me much clearer about what to do next. (Fei L. M., teacher)

Writing is very helpful for the next stage of the project. (Tang Y. Y., teacher)

¹⁶ The project's *Intergenerational Learning Guidebook*, edited by Jiacheng Li (the fourth author of this article), is expected to be published in 2021 [in Chinese]. In total, 32 authors (including Jiacheng Li) have contributed to the guidebook.

The summary stage is not only a key part of the IL-GP&GC project, but also becomes a new component of school life. For example, at the beginning of the new school semester, LongHT primary school invited students and their grandparents to share their experiences (such as problems, strategies and reflections) via the school radio, and they developed a series of new intergenerational learning courses based on the participants' experiences.

Effectiveness of intergenerational learning

What really matters in this research study is how grandparents and grandchildren are linked together via learning. In our analysis of the interview data, four themes emerged in regard to the changes the project has made for the participants. They are (1) Learning about health, life skills and values; (2) Grandparents' development of learning motivation and behaviours; (3) Grandchildrens' better understanding of older people and the concept of lifelong learning; and (4) Closer relationships between grandparents and grandchildren. We present them one by one below.

Learning about health, life skills and values

During a vulnerable time, such as the COVID-19 pandemic, it becomes imperative that both older adults and children increase their health knowledge, such as how to wear a face-mask and how to wash their hands properly, as well as how to prepare before going to a public place. Staying at home also becomes an opportunity for the young to learn more life skills and better understand the importance of values like compassion, empathy, patience and optimism – from the perspective of the older generation's life experiences.

During the IL-GP&GC project, teachers Kang, Fei, Tu, Zhu, Ding, Liu, Sun and Shen motivated students and their grandparents to learn together, and from each other, in various ways, such as through online learning, practice learning, project-based learning and game-based learning. Most participants interviewed in our study claimed that they gained more health knowledge (especially about pandemic prevention) and life skills during the project.

Grandchild Xu W. Q. said it was the first time her grandmother had used a smart-phone, so she spent a few days teaching her how to use it to check COVID-19 information. For Xu W. Q., it was also a learning experience.

If I want to teach my grandmother, I need to learn first. Sometimes, I can't answer my grandmother's questions, so I need to learn first and more ... We have learned a lot, like checking information on pandemic prevention in surrounding communities, shopping [for] food online ... (Xu W. Q., student)

Xu W. Q.'s grandmother said:

I used to think COVID-19 was like any common illness. By studying with my granddaughter, I realised just how serious it was and began to learn how to prevent it. I also gained some technical skills which were important at this

particular time, like communicating with others online, searching and downloading health information, and learning from short videos online. (Xu W. Q.'s grandmother)

Shuai C. S., who did housework with his 60-year-old grandfather, said:

I learned how to wrap dumplings from my grandfather, which turned out to be a skilled and artistic work. After learning twice, I made a meal for the whole family. (Shuai C. S., student)

Young people, who (may) experience such social events for the first time, can learn important values from their grandparents' rich life experiences, perceptions and stories. As Liu K. said,

My grandfather told me that there was an outbreak called SARS in China when I was not born yet. Both that time and this time, facing the catastrophe, we saw respectable medical workers, volunteers, journalists and other individuals who engaged in preventing the pandemics at the risk of their own safety. From my grandpa's previous experience, I understand their noble qualities. (Liu K., student)

Grandparents: developing learning motivation and behaviours

Engaging in lifelong learning presents a great opportunity for grandparents. Generally, the main duties of grandparents are to take their grandchildren to and from school, and to care for their basic needs, but they seldom get involved with their grandchildren's learning. During the COVID-19 pandemic, children could only study at home via the internet as their schools were closed; many grandparents naturally took on the role of supervising their grandchildren during online learning while their parents were absent due to work.

The intergenerational learning project responded to those changes in a timely way. Our interview data demonstrate that the grandparents felt happy about learning with their grandchildren, and they developed a sense of learning and a range of learning behaviours. As one grandfather expressed, the project made him realise that "older people can still make progress", "learning is endless" and the "values of older adults" are important (Lyu F.'s grandfather). In addition, He's grandmother said,

I don't know what to do after retirement. It's hard when you realise you are useless. During this time, I was involved in activities with grandchildren and other families, which made me very happy. I realised that old people like me can continue to progress and that children can learn a lot from me. Learning is a way for older people to be useful to society, to their families and to the young. (He's grandmother)

One grandmother, who had never been to school, learned *Hanyu Pinyin*¹⁷ from her granddaughter by participating in an intergenerational reading-circle activity. Even after the school reopened, her enthusiasm for learning continued, as manifested by her initiative to apply to attend her granddaughter's class.

By participating in this event [the reading circle], I've learned so much about Chinese characters! It was great to learn with my granddaughter and I hope there are more opportunities like this in the future. (Xu W. Q.'s grandmother)

Grandchildren: better understanding of older people and the concept of lifelong learning

Margaret Mead (1970) states that in traditional societies, older adults are respected by everyone for their vast life experience and knowledge. But in modern societies, with the specialisation and social division of labour and the rapid growth in knowledge, traditional experiences and values which have developed over a long and slower historical period are no longer seen as relevant to the life of the young. That is, children believe that learning has nothing to do with older people. Grandparents are seen to give love and care, but they are not perceived to be learners and teachers.

In the IL-GP&GC project, the activities designed by teachers Li, Tang and Zhu focused on traditional Chinese culture and history, creating opportunities for grandchildren to learn from and become reacquainted with their grandparents, and to realise that older people are knowledgeable in many areas.

Grandfather and I talked about how they used to celebrate the Festival of Lights and the meaning behind the riddles, and I found it interesting that grandfather knew a lot of things that I didn't know. (Liu K., student)

In the activities designed by teachers Ding, Liu and Li, the young students said that their grandparents became active learners who learned not only from their grandchildren but also from the internet and from other children and grandparents in the class and community.

I didn't think grandfather would learn too. It was always him who used to teach me. (Ke X., student)

I not only learned how to write with a brush from grandparents but also experienced the spirit of endless learning from them. They are so active to take various classes. And I realised that learning is a never-ending process. (Lyu F., student)

Therefore, for the young, a concrete rather than an abstract understanding of the concept of lifelong learning is formed by learning with their grandparents.

¹⁷ *Hanyu Pinyin* is often used to teach Standard Mandarin Chinese, which is normally written using Chinese characters.

Closer relationships between grandparents and grandchildren

As mentioned above, intergenerational learning is not only a transfer of knowledge but also a process of interacting with and understanding each other. Our interview data showed that the IL-GP&GC project has encouraged closer relationships between grandparents and their grandchildren.

Most children mentioned that they are now more willing to interact with their grandparents.

I feel like I've gotten to know grandfather a lot better after attending it [the project], and I'm more willing to talk to him about my feelings. (Ke X., student)

My original relationship with my grandmother was good too, and I feel it become better and better ... Because I feel like I can learn a lot of interesting things which I didn't know until my grandmother told me. (Shuai C. S., student)

Most grandparents felt a similar way and hope to have the opportunity to participate in other activities in the future.

She's much more willing to talk to me now, and often comes to me with questions and concerns. I really enjoy ... this activity. (Ke X.'s grandfather)

After being able to use smartphones, my common topics with my grandson have changed a lot and I feel like our relationship is better than before. (Shuai C.S.'s grandfather)

Although she was not interviewed in our study, one student's mother shared her feelings about the whole process of the project with teacher Ding X. on WeChat. She said,

This programme has had a significant impact on the improvement of family relationships. For example, grandparents sometimes get into fights over small things, and they have a lot of unpleasant moments while raising grandchildren. The project succeeded in bringing grandparents and grandchildren closer. As they learned together, they got to know each other better, and their relationship became closer, which invisibly diluted family conflicts. (Ke X.'s mother)

Discussion and limitations

Using individual and focus group interviews conducted by telephone and video conferencing, our study investigated teachers' implementation strategies and the effectiveness of intergenerational learning during the COVID-19 pandemic. One of the most significant findings to emerge was that schools in China have played an important role in implementing intergenerational learning during the pandemic. As some researchers have previously explained (Epstein 2009; Newman and Hatton-Yeo

2008; Franz and Scheunpflug 2016), schools can build partnerships with communities and families to enhance intergenerational learning, especially in China, where community and senior citizens' education (sometimes also referred to as *third-age education*) are not yet well developed (Ding 2019; Tu and Wu 2020).

Our study confirms that schools and teachers can be a core force in uniting families and communities to create a learning environment not only in normal times, but also during critical periods such as the COVID-19 pandemic. Furthermore, we found that by reshaping the family into a learning microsystem¹⁸ (Bronfenbrenner 1979) – and creating new learning mesosystems (such as linking contexts from one family to another and from the family to the community)¹⁹ – the experience of engaging in intergenerational learning has had four important effects on participants:

- (1) Both grandparents and grandchildren gained more health knowledge, life skills and values.
- (2) Grandparents changed their learning perspectives and behaviours.
- (3) Grandchildren understood their grandparents more and cultivated the concept of lifelong learning.
- (4) The relationships between grandparents and grandchildren became closer.

This confirms previous findings and contributes additional evidence which suggests that intergenerational learning is a good way of fostering intergenerational relationships and personal development of grandparents and grandchildren (Cummings et al. 2002; Boström 2004; Herrmann et al. 2005; Kenner et al. 2007; Holmes 2009; George and Singer 2011; Powers et al. 2013; Hanemann et al. 2017). These findings also make us rethink the relationship between family and learning. The family is not only a hub where we live, but also an important site for lifelong learning, a micro-learning unit on which the construction of a *learning society* depends,²⁰ as Rabušicová et al. (2015), Hoff (2007) and Cheri Ho (2010) have explained. Our findings suggest that intergenerational learning could be a powerful impetus for building a learning society (Cabanillas 2011).

Considering the societal implications and educational values of intergenerational learning, we plan to attempt to build a cooperative network in China which includes the government's education sector, universities, schools, communities and non-governmental organisations, among others, to support and promote this type of learning more widely, as some researchers have suggested (Newman and Hatton-Yeo 2008; Franz and Scheunpflug 2016). For example, Ho (2010), Beynon and Alfano (2013),

¹⁸ Bronfenbrenner defines a *microsystem* as “a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics (Bronfenbrenner 1979, p. 22).

¹⁹ According to Bronfenbrenner's definition, a *mesosystem* “comprises the interrelations among two or more settings in which the developing person actively participates (such as, for a child, the relations among home, school, and neighborhood peer group; for an adult, among family, work and social life)” (Bronfenbrenner 1979, p. 25)

²⁰ A learning society is a “community that promotes a culture of learning by developing effective local partnerships between all sectors of the community, and supports and motivates individuals and organisations to learn” (IIEP n.d.).

and Smith and Yeager (1999), claim that governments should regard intergenerational learning as an important part of school, community, senior and family education – and make policies to promote it. University researchers should cooperate with policymakers and teachers to study the learning–teaching mechanism, effectiveness and evaluation of intergenerational learning – like Ding (2019) and Tu and Wu (2020) have done. Teachers can help to build cooperative relationships among schools, families and communities in order to conduct intergenerational learning projects, an approach which has also been explored in previous studies (Strom and Strom 1995; Boström 2004; Ding 2019). Furthermore, if possible, we hope to develop intergenerational learning handbooks to support more teachers, policymakers and researchers to explore this area.

Despite the findings presented above, some important limitations need to be considered. The main limitation is the homogeneity (similarity) of the families that participated in our study. Most of the families we interviewed were seed families (who already had close partnerships with schools before the outbreak of the pandemic), and we were not able to interview those who were less active in their school involvement. Thus, this article has explored more positive effects, rather than any negative effects that do also exist. For example, some participants mentioned that the project was “style-over-substance”,²¹ and that “satisfying teachers” was the only reason for their participation. In addition, while more than 30 teachers participated in the IL-GP&GC project, we were only able to interview 11 of them. We also have not discussed the barriers that can occur when implementing intergenerational learning projects. Furthermore, as two grandparents were interviewed in their local dialect, we needed to ask for translation help from parents and teachers. There are some words in dialect that do not have direct equivalents in Mandarin, creating the possibility of some loss of meaning or nuances in the interview data, even when using a rigorous translation methodology.

However, within the particular constraints of conducting a study during a pandemic, what we have demonstrated in our research is that intergenerational learning has a significant and positive impact on the development of both the young and the old and can enhance intergenerational relationships. As the proportion of elders in the population continues to grow, intergenerational learning shows its great potential in promoting the development of a sustainable society. This insight suggests that both government and researchers should make more contributions to this emerging field of research and practice during the current pandemic and in the future.

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²¹ The colloquial expression *style over substance* refers to something that looks or sounds good but has flaws upon closer inspection.

References

- Beynon, C., & Alfano, C. (2013). Intergenerational music learning in community and schools. In K.K. Veblen, S.J. Messenger, M. Silverman & D.J. Elliott (Eds.), *Community music today*, (pp. 121–131). Lanham, MD: Rowman & Littlefield Education/National Association for Music Education (NAfME).
- Boström, A.-K. (2004). Intergenerational learning in Stockholm County in Sweden: A practical example of elderly men working in compulsory schools as a benefit for children. *Journal of Intergenerational Relationships*, 1(4), 7–24. https://doi.org/10.1300/J194v01n04_02.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Burgman, C. B., & Mulvaney, E. A. (2016). An intergenerational program connecting children and older adults with emotional, behavioral, cognitive or physical challenges: Gift of mutual understanding. *Journal of Intergenerational Relationships*, 14(4), 353–359. <https://doi.org/10.1080/15350770.2016.1229536>.
- Cabanillas, C. (2011). Intergenerational learning as an opportunity to generate new educational models. *Journal of Intergenerational Relationships*, 9(2), 229–231. <https://doi.org/10.1080/15350770.2011.568347>.
- Cummings, S. M., Williams, M. M., & Ellis, R. A. (2002). Impact of an intergenerational program on 4th graders' attitudes toward elders and school behaviors. *Journal of Human Behavior in the Social Environment*, 6(3), 91–107. https://doi.org/10.1300/J137v06n03_06.
- Ding, X. (2019). 创生互学共长的隔代教育新样态 [Mutual learning is a new type of intergenerational education]. *教育视界 [The Horizon of Education]*, 7, 33–35.
- Epstein, J. L. (2009). *School, family, and community partnerships: Your handbook for action* (3rd ed.). Thousand Oaks, CA: Corwin/SAGE.
- Flash, C. (2015). The intergenerational learning center, providence mount St. Vincent, Seattle. *Journal of Intergenerational Relationships*, 13(4), 338–341. <https://doi.org/10.1080/15350770.2015.1105095>.
- Franz, J., & Scheunpflug, A. (2016). A systematic perspective on intergenerational learning: Theoretical and empirical findings. *Studia Paedagogica*, 21(2), 25–41. <https://doi.org/10.5817/SP2016-2-3>.
- George, D. R., & Singer, M. E. (2011). Intergenerational volunteering and quality of life for persons with mild to moderate dementia: Results from a 5-month intervention study in the United States. *The American Journal of Geriatric Psychiatry*, 19(4), 392–396. <https://doi.org/10.1097/JGP.0b013e3181f17f20>.
- George, D., Whitehouse, C., & Whitehouse, P. (2011). A model of intergenerativity: How the intergenerational school is bringing the generations together to foster collective wisdom and community health. *Journal of Intergenerational Relationships*, 9(4), 389–404. <https://doi.org/10.1080/15350770.2011.619922>.
- Gibbons, J. L., & Fanjul de Marsicovetere, R. (2017). Grandparenting in Mexico and Central America: “Time and attention”. In E. W. Shwalb & Z. Hossain (Eds.), *Grandparents in cultural context* (pp. 17–40). New York: Routledge.
- Gu, L., Chen, J., & Li, J. (2015). The leadership of *banzhuren* in Chinese school: Based on the sample survey in Changzhou City of China. *Journal of Education and Human Development*, 4(4), 102–114. <https://doi.org/10.15640/jehd.v4n4a13>.
- Hanemann, U., McCaffery, J., Newell-Jones, K., & Scarpino, C. (2017). *Learning together across generations: Guidelines for family literacy and learning programmes*. Hamburg: UNESCO Institute for Lifelong Learning. Retrieved 29 October 2020 from <https://unesdoc.unesco.org/ark:/48223/pf0000248446>.
- Herrmann, D. S., Sipsas-Herrmann, A., Stafford, M., & Herrmann, N. C. (2005). Benefits and risks of intergenerational program participation by senior citizens. *Educational Gerontology*, 31(2), 123–138. <https://doi.org/10.1080/03601270590891522>.
- Ho, C. Y. (2010). Intergenerational learning (between generation X & Y) in learning families: A narrative inquiry. *International Education Studies*, 3(4), 59–72. <https://doi.org/10.5539/ies.v3n4p59>.
- Hoff, A. (2007). Intergenerational learning as an adaptation strategy in aging knowledge societies. In European Commission (Ed.), *Education, employment, Europe* (pp. 126–129). Conference Proceedings, Jagiellonian University, Cracow, 21–22 September 2006. Warsaw: National Contact Point for

- Research Programmes of the European Union. Retrieved 29 October 2020 from <http://7pr.kpk.gov.pl/pliki/6866/TRIPLE%20ANG.pdf>.
- Holmes, C. L. (2009). An intergenerational program with benefits. *Early Childhood Education Journal*, 37(2), 113–119. <https://doi.org/10.1007/s10643-009-0329-9>.
- IIEP (International Institute for Educational Planning) (n.d.). Learning society. IIEP Learning Portal Glossary [online resource]. Paris: IIEP. Retrieved 22 November 2020 from <https://learningportal.iiep.unesco.org/en/glossary/learning-society>.
- Kenner, C., Ruby, M., Jessel, J., Gregory, E., & Arju, T. (2007). Intergenerational learning between children and grandparents in East London. *Journal of Early Childhood Research*, 5(3), 219–243. <https://doi.org/10.1177/1476718X07080471>.
- Li, J. (2019). 隔代教育的实践类型与发展走向—兼论学习型社会建设中的隔代学习 [Practice type and development trend of intergenerational education: on Intergenerational learning in the construction of learning society]. *教育视界 [The Horizon of Education]*, 7, 31–32.
- Li, J., & Chen, J. (2013). Banzhuren and classrooming: Democracy in the Chinese classroom. *International Journal of Progressive Education*, 3(9), 91–106.
- Li, J., & Guo, J. (Eds). (2018). 你好,寒假—学生寒假与学期初生活的重建[*Hello, winter vacation: Reconstructing students' life of winter vacation and the beginning of semester*]. 北京:北京大学出版社 [Beijing: Peking University Press].
- Li, J., & Lin, J. (Eds). (2019). 你好,寒假—学习型社会建设背景下的寒假学习共生体研究 [*Hello, winter vacation: Study on learning community in winter vacation in response to the construction of learning society*]. 上海:上海交通大学出版社 [Shanghai: Shanghai Jiao Tong University Press].
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396. <https://doi.org/10.1037/h0054346>.
- Mead, M. (1970). *Culture and commitment: A study of the generation gap*. London: The Bodley Head.
- Mead, M. (1973). Pefigurative cultures and unknown children. In P. K. Manning (Ed.), *Youth: Divergent perspectives* (pp. 193–206). New York: John Wiley and Sons.
- Merriam, S.B., & Tisdell, E.J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Ming, X., & Xu, X. (2018). 代际学习:老年教育发展的重要路径 [Intergenerational learning: An important path to the development of elderly education]. 河北大学成人教育学院学报 [*Journal of Adult Education College of Hebei University*], 20(2), 40–47.
- Newman, S., & Hatton-Yeo, A. (2008). Intergenerational learning and the contributions of older people. *Ageing Horizons*, 8(10), 31–39. Retrieved 29 October 2020 from <https://www.ageing.ox.ac.uk/download/50>.
- Packer, M. J., & Addison, R. B. (Eds.). (1989). *Entering the circle: Hermeneutic investigation in psychology*. New York: SUNY Press.
- Powers, M., Gray, M., & Garver, K. (2013). Attitudes toward older adults: Results from a fitness-based intergenerational learning experience. *Journal of Intergenerational Relationships*, 11(1), 50–61. <https://doi.org/10.1080/15350770.2013.755067>.
- Rabušicová, M., Pevná, K., & Vařejková, Z. (2015). Surrogate grandparents as actors in intergenerational learning. *Studia Paedagogica*, 20(4), 85–107. <https://doi.org/10.5817/SP2015-4-6>.
- Smith, B. J., & Yeager, A. (1999). Intergenerational communities: Where learning and interaction go hand-in-hand. *Child & Youth Services*, 20(1–2), 25–32. https://doi.org/10.1300/J024v20n01_03.
- Strom, R. D., & Strom, S. K. (1995). Intergenerational learning: Grandparents in the schools. *Educational Gerontology: An International Quarterly*, 21(4), 321–335. <https://doi.org/10.1080/0360127950210403>.
- Tu, S., & Wu, Y. (2020). 基于互联网学习平台的隔代互学研究 [A study on intergenerational interaction through internet learning platform]. *江苏教育 [Jiangsu Education]*, 31, 45–48+52.
- UIL (UNESCO Institute for Lifelong Learning) (2017). *Engaging families in literacy and learning*. UIL Policy Brief 9. Hamburg: UIL. Retrieved 17 June 2020 from https://unesdoc.unesco.org/ark:/48223/pf0000249463_eng.
- UNESCO (United Nations Educational, Scientific and Cultural Organization) (2020a). Education: From disruption to recovery [dedicated COVID-19 webpage]. Paris: UNESCO. Retrieved 17 June 2020 from <https://en.unesco.org/covid19/educationresponse>.
- UNESCO (2020b). *Unlocking the potential of family and intergenerational learning*. Education Sector issue note no. 2.3, April 2020. Paris: UNESCO. Retrieved 17 June 2020 from <https://unesdoc.unesco.org/ark:/48223/pf0000373512>.

- Zeng, Z., & Xie, Y. (2014). The effects of grandparents on children's schooling: Evidence from rural China. *Demography*, 51(2), 599–617. <https://doi.org/10.1007/s13524-013-0275-4>.
- Zhao, Y., Strauss, J., Yang, G., Giles, J., Hu, P., Hu, Y., Lei, X., Liu, M., Park, A., Smith, J.P., & Wang, Y. (2013). *China health and retirement longitudinal study (CHARLS): 2011–2012 National baseline users' guide*. Beijing: Peking University (PKU). Retrieved 1 July 2020 from http://charls.pku.edu.cn/Public/ashelf/public/uploads/document/2011-charls-wave1/application/CHARLS_nationalbaseline_users_guide.pdf.

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