ABSTRACT

THE IMPACT OF INTERGENERATIONAL PROGRAMS: EVIDENCE FOR EXPANSION

by Chelsea L. Gilchrist

As the older population of the United States rises to unprecedented numbers, practitioners, researchers, and policymakers are searching for innovative approaches that promote age-integrated communities. Non-familial intergenerational (IG) programs, which establish intentional connections between people who are under 22 years of age and people who are 60 years and older, can be effective and efficient in enhancing communities. The contributions of IG programs to society and to individual development are well supported in practice, theory, and research. Unfortunately, three barriers hinder the expansion of IG programs: evidence spans many disciplines; no systematic categorization and quantification of program outcomes; and limited dissemination of program outcomes. This meta-analysis evaluated IG scholarly literature from several disciplines to categorize and quantify IG program outcomes. Outcome data were organized into a conceptual framework, stratified by central dimensions of human development and age groups. A majority of articles found positive outcomes only among all target participant age groups and dimensions of human development. This evidence further supports the magnitude and potential impact of IG programs on society, community, and the individual.
THE IMPACT OF INTERGENERATIONAL PROGRAMS:
EVIDENCE FOR EXPANSION

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by
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Chapter 1: Background

1.1 Introduction

As the older population of the United States rises to unprecedented numbers, practitioners, researchers, and policymakers are searching for innovative approaches that promote age-integrated communities: supportive environments that are great places to grow up and grow old. Non-familial intergenerational (IG) programs are an effective and efficient approach to enhance quality of life for residents of all ages. These programs offer intentional connections between people who are under 22 years of age and people who are 60 years and older.

IG programs were first established in the 1960’s to reduce isolation and poverty among older adults while simultaneously providing specialized one-on-one services to children with special needs. Since its inception, the IG field has blossomed in scope and magnitude. Scholars have made great progress in improving and expanding the IG field by defining the nature of IG programs, incorporating theoretical foundations, and evaluating how IG programs influence society and the individual. However, with this wealth of new information comes additional barriers to further expansion of IG programs and research.

Due to the interdisciplinary nature of IG programs, supporting evidence spans many disciplines and age-specific scholarly journals; this combination of interdisciplinarity with specialization poses a challenge for researchers, practitioners, and policymakers looking for consolidated evidence on the impact of IG programs. Given the breadth of disciplines and age-specializations, it is probably not surprising that there is a lack of categorization and quantification of IG program outcomes. These barriers slow down the dissemination of information, limiting the growth and accessibility of IG programs. To unite a broader audience of scholars, practitioners, and policymakers, it would be beneficial to assess the impacts of IG programs through a more comprehensive lens. This lens should capture outcome evidence from a variety of academic disciplines, quantify IG programs’ impacts, and categorize outcomes in a conceptual framework that transcends disciplines and audiences. This meta-analysis will analyze IG program scholarly literature from a variety of disciplines to evaluate and quantify the outcomes of non-familial intergenerational programs, and how they specifically impact the development of: children, youth, young adults, cognitively healthy older adults, and older adults with cognitive impairment. To improve dissemination among scholars, practitioners, and policymakers, outcome data will be organized into a conceptual framework stratified by age and central dimensions of human development outcomes.

1.2 What Are Intergenerational Programs?

IG programs create intentional connections between people who are under 22 years of age and people who are over 60. These programs are grounded upon the concept of mutually beneficial interaction, enabling “the strengths of each age group to enhance
the life experiences of the other” (Granville, 2002, p. 24). There are two categories of intergenerational programs: familial and nonfamilial. Familial intergenerational programs strengthen the bonds between elders and their kin; many of these programs involve grandparents and their grandchildren. Participants in nonfamilial intergenerational programs are unrelated; elders connect with children and youth outside of their family.

IG programs are located in urban, suburban, and rural settings, and include diverse socioeconomic, ethnic, and racial groups (Hatton-Yeo, Ohsako, & Bostrum, 2000). Programs are most commonly organized by schools, universities, community centers, non-profit organizations, and local governments. IG activities can be developed to support virtually any subject or skill level (Kaplan, 2002). Some program models have concrete objectives and expected outcomes, such as a behavioral intervention for at-risk youth. Other programs, however, have more generally defined outcomes and benefits, such as improving communication and understanding between generations. Depending on a community’s resources and needs, programming can be implemented in a variety of settings, including: schools, childcare centers, adult day care centers, long-term care establishments, libraries, and places of worship (Cummings, Williams, & Ellis, 2003). Intergenerational interactions fit onto a continuum of interaction intensity, ranging from infrequent, indirect contact between age groups to daily, direct contact (Jarrott & Smith, 2011; Kaplan, 2002).

IG models are often categorized in terms of one generation receiving services from the other, but it is important to recognize that each generation mutually benefits from the IG interaction (Kaplan, 2002). Programs are generally structured according to four models: youth assist older adults; older adults assist youth; youth and older adults work towards a mutual goal or serve the community together; and shared care sites (Butts & Kirnjeev, 2007; Hatton-Yeo et al., 2000; Jarrott & Smith, 2011; Kaplan, 2002). In the first model, youth may tutor older adult students about health management or e-communication skills, or use reminiscence props to stimulate cognitively impaired older adults and create a personalized life-story book (i.e., Chung, 2009; Council for Third Age, 2012). Models in which older adults provide a service for youth typically involve tutoring or mentoring, such as improving literacy among elementary students or imparting heritage and culture to youth (i.e., Doiron & Lees, 2009; Sone, 2008). In models where older adults and youth work towards a mutual goal or community service, the generations may participate in a fitness program together, participate in an IG music ensemble, or assemble first aid kits for homeless community members (i.e., Marx, Hubbard, Cohen-Mansfield, Dakheel-Ali, & Thein, 2005; Perry & Weatherby, 2011; Varvarigou, Creech, Hallam, & McQueen, 2011).

The final program model, shared sites, has a unique setting that distinguishes it from the previous models: youth and elders concurrently receive services and/or programming in the same building (Goyer, 2001; Kuehne & Kaplan, 2001). For example, a children’s preschool is located the same building as an adult day care program, or
elementary school students whose classroom is located in a senior living facility (i.e., Carson, Kobayashi, & Kuehne, 2011; Jarrott & Bruno, 2007). These programs may share rooms, resources, and staff. They often incorporate a blend of IG models in which youth serve older adults, older adults serve youth, or the two generations work towards a mutual goal (Carson et al., 2011; MacKenzie, Carson, & Kuehne, 2011).

1.3 The Influence of Intergenerational Programs on Community and Society

Over the past 15 years there has been a significant surge of interest in creating age-friendly communities (Kuehne, 2003a; Lui, Everingham, Warburton, Cuthill, & Bartlett, 2009). An international literature review of these age-friendly frameworks revealed a common thread: an enabling social environment is equally as essential for wellbeing as the physical environment (Lui et al., 2009). Policymakers and community planners alike recognize that social support, inclusion, and engagement are pillars of an age-friendly community (Carson et al., 2011; Lui et al., 2009; Smith, Lehning, & Dunkle, 2013). In the internationally supported World Health Organization’s Age-Friendly Cities framework, three of the eight tenets are related to social environment and inclusion (World Health Organization, 2007).

Scholars in the IG field have both directly and indirectly linked IG programs with age-friendly communities. IG programs create an intentionally shared environment that enhances the development of social capital and community relationships (Alcock, Camic, Barker, Haridi, & Raven, 2011; Doiron & Lees, 2009; Putnam, 2000; Raynes & Rawlings, 2004). The presence of strong social ties positively influences residents’ physical and mental health (Power, Eheart, Racine, & Karnik, 2007). IG programs can be used as a reliable tool to dispel ageism towards older adults and youth (Alcock et al., 2011; Cummings et al., 2003; Kaplan & Larkin, 2004; Schwalbach & Kiernan, 2002; Seedsman, 2006). IG initiatives reaffirm older adults’ value in the community and promote active aging by increasing their engagement outside of their home (Fitzgerald & Caro, 2014; Listokin, 2011; Molpeceres, Pinazo, & Aliena, 2012; Xaverius & Mathews, 2004). Older adults also serve as a critical link to cultural backgrounds and preservation of cultural identity (Haber, 2011; Kamei et al., 2011; Slevin, 2005; Sone, 2008).

From an economic perspective, IG programs are an efficient and cost-effective use of human, physical, and financial resources. Child and older adult agencies that unite for IG programs are able to share resources and expertise that they may not have previously had access to (Nichols, 2003). Many IG programs streamline personnel, which prevents duplication of program planning and organizational efforts (Nichols, 2003; van Vliet, 2011). Since many communities have limited resources for the construction and rehabilitation of facilities, it’s cost-efficient for multiple generations to share facilities (Carson et al., 2011; Goyer, 2001). Many school systems struggle to meet a multitude of needs with limited budgets; IG programs in which older adults assist with tutoring or other educational support buffer the student-to-staff ratio, allow for personalized
attention, and mitigate some of the funding cuts of special needs programs (Cummings et al., 2003; Middlemiss & Meyer, 2004).

There has been a common trend to view older adults as tangible “assets;” a naturally occurring resource that simultaneously fulfills community social service needs and elders’ desire for generativity (Molpeceres et al., 2012; Robertson, 2013). For example, at the first Asian International Conference on Intergenerational Programming, one of the major conclusions states, “older people are still assets to their countries and to the world and therefore they need to be tapped” (Wing-Chung & Petrus, 2007, p. 24). It can also be argued that children and youth are just as equally community “assets,” capable of assisting older adults through service learning and volunteer programs. The idea of humans as “capital” and “assets” speaks to economists. Equally considering elders and children as underused resources portrays them as benefits to society rather than economic burdens (van Vliet, 2011).

1.4 The Influence of Intergenerational Programs at the Individual Level

A review of IG literature reveals that a majority of scholars incorporate human development theories as justification for the importance of IG programs (Kuehne, 2003a). Older adults share reciprocal developmental needs with youth. Younger generations have a developmental need to be nurtured, taught, have positive role models, be reassured of their self-identity, and connect with preceding generations. Adult development theories posit that older adults need to nurture, teach, feel a sense of purpose, feel valued, and leave a legacy (Hatton-Yeo et al., 2000).

One of the most frequently cited theories in IG literature is Erik Erikson’s theory of life course development (cf., Jarrott, 2011). This psychosocial theory emphasizes how intergenerational relationships support the developmental needs of younger generations and older adults.

As adults reach late adulthood, they encounter a developmental stage Erikson defines as generativity—a shift in focus from concern for one’s own life towards concern for younger generations. Older adults feel the need to transmit their life experience to children and youth, to teach and support them as a way of leaving a legacy (Kessler & Staudinger, 2007). Involvement in IG activities provides older adults an avenue to guide and influence younger generations. Children benefit from older adults’ knowledge and experience, and older adults fulfill their desire for generativity. In close resemblance to many older adults’ testimonies about IG programs, one woman describes her motivations to participate: “a feeling of contributing to the community in which we live, a giving back for what we have obtained, having a small part in helping children feel better about themselves, keeping in touch with the younger generation” (Doiron & Lees, 2009, p. 146).

Erikson suggests that to prevent older adults and children from developing shame or doubt, we should support their needs for dignity and independence (Erikson, 1950). By giving older adults choices in activities and an opportunity to accomplish something
within their abilities, intergenerational relationships can boost older adults’ feelings of self-control and self-confidence (Graves & Larken, 2006). Autonomy in youth is reflected in their self-confidence and inquisitiveness. In this stage of life, children pull away from their parents to explore their world and develop self-confidence; IG programming gives children a safe environment to explore. As the two generations accomplish tasks together, youth receive encouraging praise for exploring new concepts; this responsive care promotes youth’s independence (Graves & Larken, 2006).

According to Erikson, the developmental stage of identity formation is youth’s central motivational concern. Youth are developing a sense of personal meaning and direction; in order to form an identity, they strive for knowledge about themselves and the world. Older adults in IG programs serve as positive role models willing, and desiring, to impart wisdom and guidance upon youth (Kessler & Staudinger, 2007).

Older adults’ desire for generativity complements children’s and youth’s developmental need for autonomy and identity formation. Erikson’s psychosocial theory is just one among a multitude of human development theories that form the foundation of IG programs. Although these theories may be derived from different disciplines, they all share one common link: IG programs fulfill and expand upon participants’ developmental needs.

Positive psychology, a relatively new framework, was established in 2000 by Martin Seligman. A subset within the field of psychology, positive psychology is the scientific study of the strengths and qualities that enable individuals and communities to thrive (Seligman, 2007). This framework applies a holistic approach to support and nurture human development. Community initiatives, like IG programs, that utilize this approach create an empowering environment that fosters lasting wellbeing and quality of life.

Positive psychology aims to identify and nurture a person's strongest qualities and help them find niches in which they can best live out these strengths (Seligman & Csikszentmihalyi, 2000). Similarly, intergenerational programs strive to recognize the strengths each generation has to offer, and build upon maintaining and enhancing those attributes. For example, in a typical intergenerational storytelling activity, an older adult who no longer has control of her fine motor skills may partner with a four year-old preschooler who paints the scene the older adult describes. While practicing memory recall, the older adult experiences generativity, a sense of shared accomplishment, and benefits from the social support of interacting with others. The preschooler expands her personal and social development, particularly by practicing her attention skills and learning to be accepting of others (Rosebrook, 2007; Gigliotti, Morris, Smock, Jarrott, & Graham, 2005).

Positive psychology is comprised of three tenets that are central to, and exhibited by, IG programs: positive emotions, positive individual traits, and positive institutions. At the subjective level, positive emotions are studied by reflecting on what makes people content with the past, happy in the present, and hopeful for the future; IG programs allow
older adults and youth to reflect on their pasts and appreciate the future together. At the individual level, psychologists study the enduring strengths and behaviors that contribute to a positive quality of life. Likewise, IG programs enable the strengths of individuals to enhance each person’s cognitive, physical, and social-emotional wellbeing (Granville, 2002). Lastly, at the societal level, positive psychology focuses on the development, creation, and maintenance of positive institutions, such as the creation of healthy families or positive communities. IG programs foster healthy intergenerational relationships and promote environments that allow people of all ages to thrive (Compton, 2005; Seligman, 2000).

Positive psychology identifies five essential elements for wellbeing and satisfaction with life: positive emotion, engagement, relationships, meaning, and accomplishment. IG initiatives create positive, engaging interactions by tailoring activities to participants’ capabilities and interests. IG programs often provide a failure-free environment, which allow both youth and older adults to experience a sense of accomplishment. Because IG programs strive to build nurturing relationships between elders and youth, all participants inherently feel a sense of belonging.

IG programs embody the framework of positive psychology and, consequentially, foster an environment that allows participants to flourish. This holistic approach to supporting IG participants’ developmental needs promotes optimal wellbeing and quality of life.

In addition to a theoretical foundation, four decades of research supports IG programs’ positive influence on participants’ cognitive, physical, and social-emotional development. For example, preschoolers show an increase in personal development and tolerance of others (Hayes, 2003). Elementary-aged students exhibit increased self-regulation, empathy, and social acceptance of others (Rosebrook, 2007; Femia, Zarit, Blair, Jarrott, & Bruno, 2008). Youth in middle school experience an increase in self-esteem and display an increase of positive social behaviors (Doiron & Lees, 2009). High school adolescents report feeling an increased sense of community (Alcock et al., 2011). Older adults’ lives are equally enriched, for example, by the addition of peer support and freedom of choice (Weintraub & Killian, 2007).

Chapter 2: Research Aims

Research Aims

The IG field’s contributions to society and to participants’ individual development are well supported in practice, theory, and research. While existing theoretical frameworks provide a solid foundation for the value of IG programs, scholarly literature has not consistently tied program outcomes into an interdisciplinary framework. Due to the interdisciplinary nature of IG programs, supporting evidence is scattered across many disciplines and age-specific scholarly journals. Unfortunately, the IG field lacks a shared
conceptual framework to consolidate these findings (Epstein & Boisvert, 2006; Hatton-Yeo et al., 2000; Kuehne, 2003b). Conceptualizing and quantifying the impacts of IG programs would magnify their effectiveness and strengthen their case for expansion.

To further develop IG practice, it is important that this new conceptual framework can transcend across disciplines and audiences. It is well documented that there is a disconnect between IG scholarly research and practitioners. World leaders recognize a paradigm shift in public discourse on aging and are calling for innovative ways to build age-friendly communities, but the ability of IG programs to effectively fill the gap has not been fully recognized (Fitzgerald & Caro, 2014; V. S. Kuehne, 2003a; Lehning, 2014; Smith et al., 2013). IG programs inherently possess a lot of public appeal, but there is a limited amount of outcome evidence that filters through to policymakers responsible for making informed community-wide decisions (Marx et al., 2005). This lack of a systematic compilation of evidenced outcomes creates even greater challenges for practitioners trying to secure public funding to implement IG initiatives in communities (Marx et al., 2005; Nichols, 2003). The primary barriers of outcome dissemination are inaccessibility to research and non-specialists’ inability to evaluate and interpret research outcomes (Jarrott & Bruno, 2007; Lui, Everingham, Warburton, Cuthill, & Bartlett, 2009; Seedsman, 2006; Statham, 2009). The IG field can break down these barriers by establishing a framework that consolidates program outcomes and is comprehensible to the non-specialist audience, therefore encouraging distribution amongst all practitioners, policymakers, and academic disciplines.

Much of the IG program literature is grounded upon the central dimensions of human development theory: cognitive, physical, and social-emotional growth. This interdisciplinary framework is also recognized or utilized by a multitude of academic disciplines (Kuehne, 2003a; Morgan & Kunkel, 2011). The developmental dimensions of “cognitive”, “physical,” and “social-emotional” are transparent, logical categories that appeal to a non-specialist audience. A conceptual framework based upon human development theory will incorporate analytical rigor and reach a broad audience.

Expanding IG programs, and, by extension, supporting age-integrated communities, is a society-wide challenge that will take coordinated efforts from a variety of stakeholders. Fractured dissemination of IG program outcomes hinders programs’ growth and accessibility. To unite a broader audience of academics, practitioners, and policymakers, this paper will conduct a meta-analysis of IG program outcomes and present a conceptual framework that:

- Categorizes and quantifies outcome evidence from multiple academic disciplines
- Organizes evidence into central areas of human development that are widely supported by researchers and are also comprehensible for non-specialists
- Stratifies evidence by age of participant groups
With an approach grounded in human development theory, this paper evaluates non-familial intergenerational programs and how they specifically impact the development of: children, youth, young adults, cognitively healthy older adults, and older adults with cognitive impairment.

Chapter 3: Methods

3.1 Data Collection

To evaluate peer-reviewed IG literature from 2000-2014, the researcher searched seven databases using EBSCOhost: AgeLine (gerontology), CINAHL (nursing and allied health), ERIC (education), MedLine (medicine and healthcare), PsycInfo (behavioral science and mental health), SocIndex (sociology), and Art and Architecture. The university research librarian confirmed that this was the most comprehensive approach to searching the entirety of the university’s databases. After testing multiple combinations of search terms and pairings related to IG programs, the following search was applied to each database:

- **Title:** (intergenerational OR inter-gen OR multigen OR age-friendly OR age-integrated)
- **Title:** NOT grandparent
- **Title:** NOT grandchild
- **Title:** AND (program OR approach OR activity OR activities OR engagement OR interaction OR model OR project OR service OR community)
- **All text:** AND (older adult OR geriatric OR elder OR senior OR elderly)

The search was limited to articles published in English from 2000-2014. Databases that had advanced filters (PsycInfo, MedLine, and CINAHL) excluded articles outside of the [2-22 years-old] and [50 years-old+] age range. The database search yielded a total of 453 articles: AgeLine (175), CINAHL (39), ERIC (53), MedLine (20), PsycInfo (63), SocIndex (102), and Art and Architecture (1). The researcher combed through the search results to eliminate articles about familial IG research, college students/service-learning with older adults, and articles that did not include IG interaction, contact, programming, practice, or age-friendly communities. This reduced the dataset to 261 articles: AgeLine (99), CINAHL (25), ERIC (27), MedLine (9), PsycInfo (36), SocIndex (64), Art and Architecture (1). Two articles were removed because they could not be accessed through the university library. Their omission did not impact the dataset because neither article met the inclusion criteria (i.e., the use of evaluative research methods). The dataset was further reduced by removing 135 articles that were duplicated across the databases. Once duplicated articles were removed, the dataset was reduced to 124 articles. Please refer to Table 1 for a summary of this process.
Table 1: Data Collection Process

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Generated articles from a combination of 22 keywords and 7 databases on EBSCOhost: AgeLine (gerontology), CINAHL (nursing and allied health), ERIC (education), MedLine (medicine and healthcare), PsycInfo (behavioral science and mental health), SocIndex (sociology), and Art and Architecture.</td>
<td>453</td>
</tr>
<tr>
<td>#2</td>
<td>Combed through the 453 search results to eliminate articles about familial IG research, college students/service-learning with older adults, and articles that did not include IG interaction, contact, programming, practice, or age-friendly communities</td>
<td>261</td>
</tr>
<tr>
<td>#3</td>
<td>Eliminated two articles because they could not be retrieved from the university library</td>
<td>259</td>
</tr>
<tr>
<td>#4</td>
<td>Deleted 135 articles that had been duplicated across the databases</td>
<td>124</td>
</tr>
<tr>
<td>#5</td>
<td>Read the content of 124 articles. A total of 89 articles were further eliminated because they did not meet the inclusion criteria for: research methods, length of IG interaction, number of participants, age of participants, and/or program outcomes related to participants’ individual development</td>
<td>35</td>
</tr>
</tbody>
</table>

3.2 Data Analysis

The researcher read through the 124 articles. Articles were further categorized or omitted based on: research methods, length of IG interaction, number of participants, age of participants, and program outcomes related to participants’ individual development. The details of this exclusion process are described below. A total of 35 articles met the inclusion criteria.

3.3 Research Methods

This analysis did not intend to assess the rigor of evaluation designs, or to eliminate articles that did not meet a particular standard for outcomes evaluation. Rather, the following criteria were expected from each article: systematic documentation of evaluative methods and approaches; data collection from program participants and relevant others; and clear and replicable analyses of data (Kuehne, 2003a). Evaluative methods were determined based on traditional academic interpretations of “qualitative”, “quantitative,” and “mixed-methods” (Remler & Van Ryzin, 2011). Articles were considered qualitative if their research methods collected non-numerical data and analyzed it through coding or thematic analysis. Qualitative methods included focus groups, oral or written interviews, journals, open-ended surveys, visual images, and behavioral observations. Articles were classified as quantitative if they produced numerical data using a standardized instrument and/or statistical software. Quantitative methods included close-ended surveys, scales, and statistical analyses of observations.
Articles were considered mixed-methods if they used both a qualitative and a quantitative measure, separately, such as a focus group and a close-ended survey, or an open-ended interview and a chi-square analysis of survey results. Articles that did not use a research method to evaluate program outcomes were omitted from the dataset.

3.4 Frequency and Length of Interaction

If an article neglected to specify the length of interaction, it was omitted from the dataset. There wasn’t a minimum or maximum limit on the frequency or length of IG interaction. Interaction ranged from participants indirectly interacting through pen pal letters to daily IG interaction at shared site IG programs.

3.5 Number of Participants

To be included in this analysis, articles had to specify the number of program participants. There wasn’t a minimum or maximum limitation on participant size or youth-to-older adult ratio. For analysis purposes, sample sizes were categorized as small (2-20 participants), medium (21-60), or large (61+).

3.6 Age of Participants

Older adult participants, with or without cognitive impairment, were age 60 and older. Children and youth were categorized based on scholastic year. Special considerations were given to international articles whose countries have a different scholastic system than the United States. For example, IG participants recruited from a German gymnasium (grades 12-13) were categorized as high school. Children and youth participants fell into one of the following categories: preschool (generally 2-4 years-old), elementary (5-11 years), middle school (12-14 years), or high school (15-18 years).

3.7 Outcomes

Positive and negative outcomes of IG programs were categorized according to the central dimensions of human development theory: cognitive, physical, and social-emotional. The cognitive dimension includes mental activities, such as: reasoning, language, memory, information processing, problem solving, and schemas and conceptualization of knowledge. Physical outcomes are related to physiological health and wellbeing, such as: motor skills, weight loss or gain, blood pressure, participation in physical activity and fitness, and healthy or unhealthy behaviors. Outcomes in the social-emotional dimension are related to mental health, interpersonal relations, and social behavior. Social-emotional outcomes include effects on an individual’s self-confidence, self-expression, pro-social behavior, moral ideas, attitude towards others, and social relationships (Morgan & Kunkel, 2011; McDevitt & Ormrod, 2004).

Chapter 4: Results

4.1 Dataset Descriptives: Publishing year, journal disciplines, methods, group size, and participants
Articles (n=35) in this dataset were published between 2000 and 2011; 7 articles were included from 2000-2003, 17 articles from 2004-2007, and 11 articles from 2008-2011. The articles were published across 17 journals in a wide variety of disciplines, including: urban health, nursing, music, education, psychology, gerontology, sociology, and IG relations. A list of the journal titles is available in the appendices.

Among the articles in the dataset, a comparable number used quantitative (34%, n=12) or qualitative (37%, n=13) measures exclusively. Nearly 30% of all articles used a mixed-methods evaluative approach (n=10). The number of participants in an IG program ranged from 14 people to 392. Over half of the articles (51%, n=18) evaluated large IG programs (61 participants or larger). The remaining articles evaluated medium (34%, n=12) and small (14%, n=5) IG programs. A majority of the articles involved elementary school students (66%, n=23), followed by middle school (29%, n=10), preschool (23%, n=8), and high school (9%, n=3). Some articles involved more than one youth age group, such as a combined IG program for elementary and middle school youth. Nearly one-third (31%, n=11) of the articles included older adult participants with cognitive impairment.

Table 2: Dataset Descriptives

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Articles (100%)</th>
<th>Number of Articles (35)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Methods</strong></td>
<td></td>
<td></td>
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<tr>
<td>Qualitative</td>
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<td>13</td>
</tr>
<tr>
<td>Mixed-methods</td>
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<td>10</td>
</tr>
<tr>
<td><strong>Group Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small (2-20)</td>
<td>14.3</td>
<td>5</td>
</tr>
<tr>
<td>Medium (21-60)</td>
<td>34.3</td>
<td>12</td>
</tr>
<tr>
<td>Large (61-392)</td>
<td>51.4</td>
<td>18</td>
</tr>
<tr>
<td><strong>Youth Participants</strong></td>
<td></td>
<td></td>
</tr>
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<td>Preschool</td>
<td>22.9</td>
<td>8</td>
</tr>
<tr>
<td>Elementary school</td>
<td>65.7</td>
<td>23</td>
</tr>
<tr>
<td>Middle school</td>
<td>28.6</td>
<td>10</td>
</tr>
<tr>
<td>High school</td>
<td>8.6</td>
<td>3</td>
</tr>
<tr>
<td><strong>Elderly Participants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitively healthy</td>
<td>68.6</td>
<td>24</td>
</tr>
<tr>
<td>Mix of cognitively healthy and cognitively impaired</td>
<td>31.4</td>
<td>11</td>
</tr>
</tbody>
</table>
4.2 Intergenerational Program Overall Outcomes

The outcomes from each study were first stratified by age of target participants: preschool, elementary school, middle school, high school, or older adult. Next, outcomes were further classified into one of the three human development dimensions: cognitive, physical, or social-emotional. Within each developmental dimension, there were two possibilities: 1) The article did not discuss that particular type of outcome, and 2) The article did discuss that particular type of outcome. Outcomes in the first tier do not imply “no impact,” but rather that the article did not aim to study that developmental dimension, or did not discuss an impact in that developmental dimension. The second tier categorizes an outcome as: benefits only; drawbacks only; or benefits and drawbacks. Figure 1 portrays this classification.

Figure 1: Process for Categorizing Outcomes into the Cognitive Developmental Dimension

As shown in Table 3 below, of the articles that reported a cognitive outcome, 100% reported positive impacts only across all age groups. When youth were the target participants, IG programs with high school students were least likely to discuss a cognitive impact (67%), followed by preschool (50%), middle school (40%), and elementary (27%). Over half of the articles did not discuss a cognitive impact for older adults (54%).

A majority of all articles in the dataset discussed a social-emotional impact. In fact, most articles reported positive social-emotional impacts only among preschoolers (67%), elementary (81%), middle (75%), and high school (100%) youth. Among older adults, three-quarters of the articles found positive social-emotional impacts only.
The social-emotional dimension was the only category that yielded drawbacks. One-third of articles about preschoolers, 20% of those that discussed elementary students, and 13% of those that included middle school students discussed a mix of positive and negative social-emotional outcomes. In a quarter of the articles that reported social-emotional results for older adults, those participants experienced a mix of benefits and drawbacks. Of the articles that discussed social-emotional outcomes among middle school students, 13% reported drawbacks only.

Of the articles that discussed physical outcomes, all reported only positive impacts, for all age groups. However, out of the three developmental dimensions, articles were least likely to discuss physical outcomes, particularly those with preschool (100%) and elementary (91%) populations. Over three-quarters of the articles did not discuss a physical impact among older adults (77%).

### Table 3: Intergenerational Program Overall Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Preschool (8)</th>
<th>Elementary (23)</th>
<th>Middle (10)</th>
<th>High (3)</th>
<th>Older Adults (35)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None discussed</td>
<td>50.0</td>
<td>27.3</td>
<td>40.0</td>
<td>66.7</td>
<td>54.3</td>
</tr>
<tr>
<td>Of those discussed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits only</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Drawbacks only</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Benefits &amp; drawbacks</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Social-emotional Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None discussed</td>
<td>25.0</td>
<td>8.7</td>
<td>20.0</td>
<td>66.7</td>
<td>17.1</td>
</tr>
<tr>
<td>Of those discussed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits only</td>
<td>66.7</td>
<td>81.0</td>
<td>75.0</td>
<td>100.0</td>
<td>75.9</td>
</tr>
<tr>
<td>Drawbacks only</td>
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<td>0.0</td>
<td>12.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Benefits &amp; drawbacks</td>
<td>33.3</td>
<td>19.0</td>
<td>12.5</td>
<td>0.0</td>
<td>24.1</td>
</tr>
<tr>
<td><strong>Physical Outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None discussed</td>
<td>100.0</td>
<td>91.3</td>
<td>70.0</td>
<td>66.7</td>
<td>77.1</td>
</tr>
<tr>
<td>Of those discussed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits only</td>
<td>-</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Drawbacks only</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Benefits &amp; drawbacks</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
**Individualized Outcomes: Conceptual Framework**

Since every article evaluated the outcomes, or impacts, of an IG program, “article” and “IG program” will be used interchangeably throughout this analysis.

### 4.3 Preschool: Cognitive, Social-emotional, and Physical Outcomes

Preschool participants were included in nearly one-quarter (23%) of articles in the dataset. A majority of preschool IG programs measured impacts using qualitative methods (50%), followed by quantitative (35%) or mixed-methods (13%). Of the 50% of preschool IG programs that discussed a cognitive outcome, all reported positive impacts. Preschoolers broadened their knowledge about the aging process and experienced increased sensory stimulation, particularly among medium to large-sized programs with frequent IG interaction. The children also exhibited an improved sense of self due to positive encouragement from older adults.

Of the 75% of preschool IG program articles that discussed a social-emotional outcome, all reported a decrease in ageism. This increased tolerance of others also carried over into preschoolers’ other social relationships. For example, one medium-sized program with daily IG interaction reported that preschoolers were increasingly empathetic towards older adults and less judgmental towards their peers; a longitudinal study of a similar IG program revealed that children exhibited greater social acceptance and were more willing to help others than children who did not participate in an IG preschool program (cf., Femia, Zarit, Blair, Jarrott, & Bruno, 2008; Gigliotti et al., 2005). This evidence shows that IG interactions foster an increased tolerance for others that influences a realm of social relationships and is sustained in later childhood. Preschoolers who experienced daily IG interaction also exhibited an increase in autonomy and greater behavioral self-regulation.

Two programs with daily IG interaction reported a mix of positive and negative social-emotional outcomes. The negative outcomes stemmed from preschoolers’ close relationships with the older adults; they experienced disappointment when the older adults were absent from an activity (cf., Gigliotti et al., 2005). The other IG program reported that parents were concerned about how an elder’s death would affect their child (cf., Heyman & Gutheil, 2008).

For future research, it is significant to note that none of the articles regarding preschoolers discussed a physiological program outcome. None of the programs specifically targeted physical activity or utilized tools to measure physiological outcomes.

### 4.4 Elementary School: Cognitive, Social-emotional, and Physical Outcomes

A majority (66%) of articles in the dataset involved elementary-aged participants. Most elementary IG programs were evaluated using quantitative (35%) or mixed-methods (39%); qualitative methods evaluated 26% of the programs. Over 70% of elementary IG programs discussed a cognitive outcome, and 100% reported positive outcomes only. IG programs enriched children’s learning experience by reducing the
adult-to-student ratio and providing specialized attention to children’s academic needs. Children in large IG programs exhibited increased reading comprehension, improvement in their writing abilities, and an increase of confidence in their reading abilities. Children in small and large IG programs also exhibited an increased interest in learning new concepts. Through IG interaction in programs of all sizes, elementary students developed new skills and specialized knowledge, such as sewing, mapping, gardening, oral communication skills, and knowledge about environmental processes and first-person accounts of historical events. One particular large IG program also found an increase in students’ problem solving skills (cf., Cummings et al., 2003).

Over 90% of IG programs with elementary-aged children discussed a social-emotional outcome; 81% reported positive outcomes only. All programs reported that children had an increased positive view of the elderly. This outcome was exhibited by increased empathy and respect towards older adults, increased acceptance of their physical limitations (wheelchairs, canes), increase in the number of positive words used to describe older adults, and apprehensive children’s realization that they had shared meaning (much in common) with older adults.

Elementary students exhibited an increase in positive behaviors, such as greater behavioral self-regulation, increased pro-social behavior, and improvement in classroom behavior and participation; this outcome was portrayed in small, medium, and large IG programs. IG interaction positively influenced elementary school students’ self-concept, such as an increase in self-esteem, self-efficacy, and self-expression; this outcome was found among small and large IG programs. IG programs of all sizes (small, medium, large) found that the elementary population exhibited an increase in community values and moral ideas, such as an increased desire to serve the community, protect the environment, and respect the autonomy of others. IG interaction also positively influenced children’s mental health; older adults were viewed as encouraging role models that provided emotional support and reduced children’s feelings of anxiousness and sadness.

A few articles discussed a mix of positive and negative IG program outcomes. As with the preschool participants, the drawbacks were related to children’s close relationship with the older adults; they experienced disappointment when their older adult friend was absent from a shared site IG activity (cf., Gigliotti et al., 2005). One medium-sized program found that children focused more on the physical aspects of aging, such as wrinkles and glasses (cf., Schwalbach & Kiernan, 2002). This particular program had limited IG contact; students may have benefitted if program facilitators had discussed the aging process with the children before they met face to face with elders. The final drawback was found in a small IG program that targeted at-risk students: one particular student self-reported that he did not enjoy the IG interaction, even though his teachers noted a positive improvement in his behavior (cf., Marx, Pannell, Parpura-Gill, & Cohen-Mansfield, 2004).
Particularly among small and medium IG programs, elementary school students exhibited positive physiological outcomes. Students showed increased participation in physical fitness activities and self-reported an increase in muscle strength. Articles did not report any negative physical outcomes.

4.5 Middle School: Cognitive, Social-emotional, and Physical Outcomes

Almost one-third (29%) of articles in the dataset involved youth in middle school. A majority of these articles evaluated program outcomes using qualitative methods (50%), followed by quantitative (30%) or mixed-methods (20%). Over half of the middle school IG programs reported a cognitive outcome, positive impacts only. Outcomes from medium and large IG programs revealed an improvement in students’ reading skills and comprehension. Middle school students in medium and large IG programs exhibited an increased commitment to academics; elders academically motivated students and served as models of lifelong learners and readers. Medium and large-sized IG programs provided an enhanced learning experience in which youth learned first-hand accounts of historical events. One particular medium IG program improved elementary students’ reasoning skills, encouraging them to open their minds and think for themselves (cf., Dipardo & Schnack, 2004).

Of the articles that discussed a social-emotional impact, 75% reported positive outcomes only. All middle school-aged children exhibited an increased positive view of older adults, such as increased respect, empathy, and value of older adults. They had a particularly heightened appreciation for older adults’ abilities and the challenges associated with the aging process. In a large program in which students had weekly IG interaction for 4 months, youth’s increased appreciation for older adults carried over into relationships within their own families; students reported an enhanced relationship with their grandparents and parents (cf., de Souza, 2007). This outcome supports IG programs’ ability to improve family dynamics and social relations outside of the IG program.

IG interaction improved middle school students’ self-concept, such as their self-esteem and self-expression. This outcome was reported by medium and large IG programs, particularly when older adults offered praise and attentively valued youth’s contributions. Older adults provided a unique type of social support that significantly enhanced youth’s mental health. They viewed older adults as mentors and sometimes sought their emotional support and advice, such as one young girl who was distraught over a bullying situation. Middle school students in one particular medium IG program turned to older adults for approval and received positive reinforcement for good behaviors, such as academic success and personal responsibility (cf., Dipardo & Schnack, 2004).

Of the articles that discussed middle school children, a small percentage found social-emotional drawbacks. In a large IG program that found benefits and drawbacks, the drawback was related to the program structure and how it affected youth’s relationship with the older adults (cf., de Souza, 2007). These youth met weekly with
older adults for four weeks. After the program ended, youth were disappointed that the IG program was not longer; it had taken them awhile to overcome their shyness, and they felt that they didn’t have enough time to reciprocate stories with their older adult friends. In the IG program that reported a negative impact only, the drawback was about youth’s general perception of society; they increasingly felt that “most people” are selfish (cf., de Souza & Grundy, 2007). It can be argued that this study did not find a positive social-emotional outcome due to the fact that they utilized a survey that only evaluated one social-emotional outcome (others’ selfishness).

Nearly one-third of articles about middle school students discussed a physiological outcome; all outcomes were positive. A small and a medium IG program both reported an increase in children’s physical fitness activities; youth in the medium IG program also self-reported feeling stronger (cf., Carson et al., 2011; Perry & Weatherby, 2011). After IG interaction in a large program, youth were three times more likely to self-report their health as “good” (cf., de Souza & Grundy, 2007). It’s significant to note that this large IG program did not involve any type of physical activity or aim to modify youth’s health behaviors; their IG activities focused on older adults and youth sharing stories and life experiences. Youth’s improved self-report of health may be attributed to sympathizing with older adults’ fragile health conditions and therefore having an increased appreciation of their own health.

4.6 High School: Cognitive, Social-emotional, and Physical Outcomes

There are a limited number of articles regarding the high school population (9%, n=3); one small, one medium, and one large IG program. The small IG program evaluated outcomes with a mixed-methods approach; the medium IG program used a qualitative approach; and the large IG program used a quantitative approach. All programs reported positive outcomes only.

A cognitive impact was reported among high school students in the small IG program; adolescents reported an improvement in their ability to mentally focus on an activity, such as their IG tai chi class (cf., Perry & Weatherby, 2011). Two articles discussed social-emotional outcomes among the high school population. The large IG program reported an increase in adolescents’ pro-social behavior, particularly in how attentive they were towards listening to older adults’ input (cf., Kessler & Staudinger, 2007). The medium sized IG program reported a significant increase in adolescents’ positive view of older adults (cf., Alcock et al., 2011). Prior to participating in the IG program, these youth viewed older adults as dependent and needy, in cognitive decline, and having poor personal hygiene. After IG interaction, youth realized they had a lot in common with older adults and developed a sense of shared meaning.

Of the three IG programs with high school participants, only one discussed a physiological outcome. The small IG program reported an increase in children’s physical activity and self-reported strength (cf., Perry & Weatherby, 2011). Although it could be argued that these impacts are related to the nature of the IG activity (tai chi), it could also
be argued that interacting with older adults increased adolescents’ motivation to participate and keep returning to the program.

4.7 Older Adults: Cognitive, Social-emotional, and Physical Outcomes

A slight majority of program outcomes among older adults were evaluated through qualitative methods (37%), followed by quantitative (34%) and mixed-methods (29%). Almost half (46%) of the articles discussed a cognitive outcome among older adults. Large IG programs reported that older adults exhibited an increase in recall ability and word fluency, and maintained episodic memory. All IG program sizes (small, medium, large) reported an increase in cognitive stimulation. Among large IG programs, older adults experienced increased mental stimulation through the IG interaction itself and tutoring experiences. Among medium-sized IG programs, adults self-reported increased mental alertness from frequently reading and journaling with youth, and appreciated the opportunity for mutual learning. A majority of these programs involved older adults mentoring or tutoring youth in schools.

Large and medium IG programs increased older adults’ sense of self, particularly in their abilities to succeed in tasks or goals. Participants among all IG program sizes learned new skills. Older adults in large and medium IG programs learned best practices in childcare and how to effectively communicate with children. A medium IG program enhanced older adults’ computer skills, resulting in an increase of e-communication.

Almost one-third of articles included older adults with cognitive impairment. A large IG program that fostered connections between preschoolers and older adults reported that cognitive function did not affect older adults’ desire or ability to participate in IG activities; higher and lower functioning older adults were equally likely to experience positive outcomes (cf., Jarrott & Bruno, 2003). For example, one medium IG program with cognitively impaired older adults reported an increase in participants’ desire for interaction, communication, and engagement in activities (cf., Hayes, 2003). Several medium IG programs reported that adults with dementia significantly benefitted from being given the opportunity to demonstrate competence.

A majority (83%) of articles discussed a social-emotional outcome among older adults; 76% reported positive outcomes only. Most outcomes were reported by medium (31%) or large (51%) IG programs; 18% of social-emotional outcomes were reported by small IG programs. Generativity was a common thread among IG programs of all sizes. IG programs gave older adults a sense of purpose and made them feel valued and needed. Older adults who had previously reported feeling a lack of recognition by others felt that IG programs restored their sense of self-worth. Older adults also felt that they had positively contributed to the growth and development of children. They appreciated the opportunity to pass down knowledge, share interests and experiences, and leave a legacy. By educating students about real-life historical events (i.e., World War II), older adults felt that they were helping to prevent such horrible events from happening again.
One of the most salient positive social-emotional outcomes from all IG program sizes (small, medium, large) was the impact of social connectedness. Older adults experienced a significant increase in their sense of community; they expanded their social networks with children outside of the IG program, strengthened relationships with their neighbors, and had an increase in the faith of others in the community. They also expanded their social network of friends and acquaintances of the same generation. Older adults reported a significant increase in the social support they provided to others, and in the number of people they could turn to for support.

Children provided older adults with a unique sense of emotional support, such as sending well wishes when their elder friends were sick. These youth filled an emotional and social gap for many older adults who had limited contact with their own grandchildren and young relatives. Older adults self-reported an increased positive attitude towards youth, particularly due to youth’s goodness, optimism, and maturity. They also reported feeling vitalized by youth’s energy, enthusiasm, and intelligence.

Across all IG program sizes (small, medium, large), older adult participants exhibited an increase in self-expression, self-confidence, and self-esteem. They also exhibited increased autonomy and appreciated opportunities to exhibit freedom of choice.

A consistent link between IG interaction and improved mental health emerged from these articles on outcomes for older adults. IG programs of all sizes documented that older adults experienced a decrease in depression/depressive symptomology, decrease in despair, reduced anxiety, and an overall feeling of peace from being around the children. One large IG program that specifically measured life satisfaction found an increase in this measure among all older adults participants (cf., Meshel & MCGlynn, 2004).

IG programs also had a significant social-emotional impact on adults with dementia; all outcomes were reported by medium and large IG programs. Older adults exhibited an increase in a range of positive behaviors, such as verbal/nonverbal communication, activities of daily living, engagement, creative expression, and exercise. They were significantly less withdrawn and demonstrated lower levels of passive behavior. Older adults exhibited an increase in positive affect on the days that they interacted with youth. When children were present in older adults’ long-term care facilities, older adults exhibited significantly less inappropriate behavior, such as aggression, self-injury, yelling, wandering, or disoriented walking. Older adults in one particular program self-reported that IG interaction made them feel happy, needed, loved, interested, and younger (cf., Jarrott & Bruno, 2007).

One-quarter of IG programs reported a combination of positive and negative social-emotional outcomes. Older adults in one small IG program reported feeling sad when their interaction with youth triggered memories from adults’ past (cf., Heyman & Gutheil, 2008). Elders in a large IG program self-reported that they had significantly less social support than before; this was attributed to an increase of stress from volunteering and self-pride that prevented older adults from asking colleagues for help (cf., Fujiwara et
Additional negative outcomes reported by medium and large IG programs were attributed to challenges with computers, challenges communicating with youth due to hearing impairment, and activities that were not appropriate for adults.

Among IG programs that included older adults with cognitive impairment, two medium IG programs reported negative outcomes. Adults in one program sometimes demonstrated impatience or frustration during activities. In another IG program, over half of participants with dementia indicated dissatisfaction with the program due to noise, commotion, and/or preschool children’s impoliteness.

Nearly one-quarter (23%) of articles discussed the impact of IG programs on older adults’ physiological health; all outcomes were positive. IG programs of all sizes reported an increase in older adults’ physical activity due to commuting to and from the program, or to purposeful physical activities with youth (i.e., going for walks). In a large IG program, older adults who regularly volunteered had lower systolic blood pressure and less use of eyeglasses compared to peers who volunteered infrequently (cf., Fujiwara et al., 2009). Older adults in medium and large IG programs reported an increase in muscle strength. A large IG program reported a significant decline in older adults’ use of walking canes and risk for falls (cf., Fried et al., 2004).

Chapter 5: Discussion and Limitations

5.1 Discussion

This meta-analysis reveals that IG programs produce significant impacts on participants’ cognitive, social-emotional, and physical wellbeing. The articles analyzed for this research provided significant evidence regarding social-emotional outcomes and moderate evidence regarding cognitive outcomes; evidence of physical outcomes was limited. A majority of articles that discussed IG program outcomes found positive outcomes only across all developmental dimensions and age groups. Of those that found negative outcomes, most were attributed to: programs’ structural issues, participants’ physical and/or cognitive limitations, and participants’ close attachment to one another (i.e., disappointment when a participant of the opposite generation was absent).

Significant findings from the analysis include:

- Across all youth age groups (preschool, elementary, middle, high), every article that discussed a social-emotional outcome reported that youth had an increased positive view of the elderly, generally expressed as increased respect and empathy toward the older adult population.
- Of the articles that evaluated social-emotional outcomes among preschool, elementary, and middle school youth, all found an increase in youth’s self-esteem, self-efficacy, and self-expression.
- The drawbacks evaluated in preschool, elementary, and middle school articles were mostly related to youth’s close relationships with older adults, such as being...
disappointed when older adults were absent from IG activities; high school IG programs did not report any drawbacks

- Among older adults, all IG programs (small, medium, and large) that discussed a cognitive outcome reported an increase in cognitive stimulation
- Increased social connectedness had a significant impact on older adults, particularly improving their mental health and expanding their social networks within the community
- Older adult participants exhibited an increase in self-expression, self-confidence, and self-esteem across all IG program sizes (small, medium, large)
- Almost one-third of articles in the dataset included older adults with cognitive impairment
- A majority (66%) of articles in the dataset involved elementary-aged participants
- A majority of all articles discussed positive social-emotional outcomes only
- The majority of articles did not discuss physical outcomes

It is encouraging to report that youth across all ages report increased respect and empathy towards older adults. Due to the IG field’s historical emphasis on evaluating youth’s attitude towards older adults, it is not surprising that this outcome was discussed among all articles involving youth. Because the foundation of IG programs emphasizes nurturing social relationships between participants, staff, and community, it was expected that the meta-analysis would reveal IG programs’ powerful influence on participants’ social-emotional development and well-being. A limited number of reported physical outcomes is likely due to the fact that a majority of IG programs do not emphasize physical activity, or do not use evaluative measure to assess physical outcomes.

It is especially inspiring to report that all preschool, elementary, and middle school youth exhibited an increase in self-esteem, self-efficacy, and/or self-expression. This outcome is a testament of older adults’ significant impact on youth’s development, particularly serving as role models and mentors. IG interaction also had a significant impact on older adults’ cognitive development, particularly increasing cognitive stimulation.

Individualized outcomes from all disciplines and journals were effortlessly fused into the conceptual framework of developmental dimensions and age stratification. The framework successfully promoted emphasis on tangible outcomes rather than burying them beneath the details of evaluative methods, programs motives, and length of interaction found in scholarly literature. Although the latter are principal components of IG programs’ substance, researchers can rigorously address these elements “behind the scene,” through exclusion criteria, so that outcomes are sharply exhibited in the analysis.

5.2 Limitations

Based on available scholarly literature, a limited number of articles met the conditions for this meta-analysis of research that included physical (physiological)
outcomes, high school adolescents, and preschool children. The dataset was further restricted by a limited number of articles that met the inclusion criteria, particularly a lack of scientific evaluation measures and the failure to mention the frequency and intensity of IG interaction.

The categorization of group size in this analysis did not effectively capture the variation in size of IG programs that had more than 100 participants. To strengthen the conceptual framework in this analysis, it’s recommended that replicated studies in the future redistribute the scale to more accurately reflect large-scale IG programs. A more sophisticated measure of program size and intensity could yield results that would be valuable to IG program designers.

This meta-analysis revealed that outcomes of IG programs are predominantly positive; published articles rarely report limitations or drawbacks related to participants’ individual development. While it is entirely possible that the programs do show consistently positive outcomes, the lack of negative findings could also be attributed to a lack of consistent, standardized tools used to evaluate IG programs, or to stakeholders’ personal investment in the continuation of IG programs.

Chapter 6: Further Recommendations from Content Analysis of the Literature

Based on the thorough analysis of all 124 articles considered for potential inclusion, valuable implications and gaps in IG program literature emerged. This section will briefly discuss several of the major implications for program design and practice, and some suggestions for future research.

6.1 Suggestions for Program Design and Implementation

Given the immense variation of IG program designs, goals, and objectives, what works best for one program may not work best for another. However, this meta-analysis revealed a basic commonality of best practices among the design and implementation of IG programs in the United States. While a rigorous content analysis of implicit or explicit best program practices was beyond the scope of this project, several practical suggestions consistently emerged from the careful reading of these publications. In regards to program design, the development, planning, implementation, and evaluation should be a collaborative effort by all participating agencies and staff. Program goals and objectives should be clearly defined and articulated, and should reflect participants’ interests and ability levels. Administrative and program staff should be well trained and knowledgeable about the developmental needs of both youth and older adults. To foster optimal engagement and IG interaction, it is recommended that program activities and roles are age-appropriate for all participants. IG programs advocate that participation in IG activities should be a voluntary choice for youth and older adults.
The physical environment of IG programs can greatly influence participant interaction and relationship formation. It is recommended that IG programs have a designated space that accommodates participants’ physical abilities and/or limitations. For example, engagement can be enhanced with tall table chairs for preschool children to sit at the same level as older adults, or railings along the walls to help older adults move about the space and better engage with youth. The ideal IG program space includes materials that are inviting to both age groups.

IG interactions could be strengthened if program facilitators take proactive measures to educate and train participants before face-to-face interaction with the other generation. This approach would improve communication between the generations and ease each generation’s concerns about what to expect from each other. A variety of approaches could be used to prepare IG participants, such as training workshops for adults about the developmental needs of the children they will be interacting with, and gerontologists as guest speakers to educate children about the aging process and changes in older adults’ physical appearance. Role-play activities are often effective for conveying these ideas. For example, before 4th grade students participated in a monthly IG program, their teacher prepared students for the experience through IG literature, discussion, guest speakers, and simulation. The “training” raised students’ awareness of the aging process and enhanced communications between youth and older adults; all youth exhibited increased empathy and contributed to preservation of older adults’ autonomy (cf., Schwalbach & Kiernan, 2002).

Similarly, IG program facilitation could be improved if program staffs are properly cross-trained in gerontology and child development. Understanding the unique needs, abilities, and interests of each population is a critical component of IG program facilitation, but this concept is often inadequately addressed in IG program evaluation. Program facilitators should strive to cross-train their staff, and the IG field should increase their efforts to produce cross-training materials and tools.

Facilitating an IG program can be a very time consuming and strenuous task. Program structure could be enhanced if IG programs designate a knowledgeable IG coordinator rather than add “IG program facilitation” to an already-existing job’s description (i.e., a preschool teacher who is responsible for coordinating IG activities in addition to her teaching responsibilities). Appointing a designated IG facilitator could ensure effective communication, continuity, and management. IG programs’ payroll budgets are understandably tight; increased dissemination of programs’ positive outcomes will hopefully result in increased funding for IG programs.

6.2 Suggestions for Future Research

It is well-documented that the IG field has been pushing scholars to increase their use of rigorous scientific program evaluation. To further expand on this suggestion, longitudinal evaluations to examine the long-term, sustained effects of IG programs should be part of the agenda for scholars in this field. Nearly all of the existing IG
program literature evaluates existing program participants, but very few programs follow-up with participants months or years later— in later childhood or adulthood. An increase in longitudinal evaluations would significantly strengthen the evidence supporting IG programs. Another gap in the existing IG literature is a lack of examination of outcomes related to cognitively impaired older adults. With the growing emphasis on older adults aging in their homes with or without caregivers, it would be beneficial to expand evaluation of cognitively impaired adults beyond shared site IG programs in long-term care facilities.

It is well evidenced in the IG program literature that IG interaction significantly improves youth’s attitude towards older adults. Given the strength of evidence supporting this social-emotional aspect, IG program literature should expand evaluation of program outcomes beyond measuring ageism. The results of this meta-analysis portray the immense potential for IG programs to influence other dimensions of youth’s development (i.e., cognitive and physical) and social-emotional implications beyond decreased ageism.

The IG program literature has increasingly reported outcomes related to participants’ individual development and wellbeing, but often neglects outcomes that are related to the broader framework of the community. Expanding IG program evaluation frameworks to include program outcomes from a macro, community perspective could better conceptualize the magnitude of IG programs. For example, IG programs build community capacity and fulfill community-wide social services needs. Given the surge of interest in age-friendly communities, parallel dissemination of individual and community program outcomes could permeate into the age-friendly communities literature and emphasize IG programs as an effective community strategy.

Chapter 7: Conclusion

The IG field has made significant progress in documenting IG programs’ impact on society and the individual. Evidence shows that IG programs are a pillar of age-friendly communities and a cost-effective use of human, physical, and financial resources. Grounded upon human development theory, IG programs nurture participants’ individual development. Research evidence supports the boundless potential of intergenerational programming; preschoolers to older adults experience cognitive, social-emotional, and physical benefits.

The outcomes of IG programs are as diverse and complex as the programs themselves. Analysis shows that these impacts are overwhelmingly positive across all developmental dimensions and age groups. Results of this meta-analysis further support the magnitude and potential of IG programs’ influence on society, community, and participants’ individual development. To successfully disseminate program impacts and expand the presence of IG programs in communities, scholars should quantify and categorize program outcomes in a framework that transcends disciplines and audiences.
The framework presented in this meta-analysis is an initial step in conceptualizing the impact of IG programs. To further expand IG program research and development, scholars should consider expanding this framework to capture program motivations and objectives; structure and development; and parallel dissemination of individual and community program outcomes. With a united audience of researchers, practitioners, and policymakers, IG programs can build age-friendly communities that nurture and enhance individuals’ cognitive, physical, and social-emotional development in all phases of life.
References


Appendix

Appendix A: Journals Included in Meta-analysis of Outcomes of IG Programs

<table>
<thead>
<tr>
<th>Journal Title</th>
<th>Number of Articles Retrieved from Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Journal of Alzheimer’s Disease and Other Dementias</td>
<td>1</td>
</tr>
<tr>
<td>Applied Environmental Education and Communication</td>
<td>1</td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>1</td>
</tr>
<tr>
<td>Early Childhood Research Quarterly</td>
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<tr>
<td>Educational Gerontology</td>
<td>10</td>
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<tr>
<td>Japan Journal of Nursing Science</td>
<td>1</td>
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<tr>
<td>Journal of Applied Gerontology</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Community and Applied Social Psychology</td>
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<tr>
<td>Journal of Educational Psychology</td>
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<td>Journal of Human Behavior in the Social Environment</td>
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<tr>
<td>Journal of Intergenerational Relationships</td>
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<td>Journal of Music Therapy</td>
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<td>Journal of Urban Health</td>
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<td>Psychology and Aging</td>
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<td>Reading Research Quarterly</td>
<td>1</td>
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<td>School Community Journal</td>
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<tr>
<td>Social Science and Medicine</td>
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</table>
Appendix B: Articles Included and Analyzed in the Meta-analysis Dataset


