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BRIDGING THE GAP BETWEEN CHILDREN AND SENIORS: THE ARCHITECTURAL DESIGN OF INTERGENERATIONAL SPACES IN GRODZISKO DOLNE, POLAND

This article focuses on the design of shared spaces for children and older people to promote positive intergenerational relationships. Designing spaces appropriately can help improve the quality of life for both groups. Shared spaces can be more resource efficient and provide services tailored to the needs of children and seniors. The aim of this study is to analyse the conditions for creating such a facility in Grodzisko Dolne and to propose an architectural concept. The methodology includes a literature review, a diagnostic survey, an architectural concept and a synthesis. The results suggest that effective inclusive spaces should offer programmes that are attractive to both children and seniors in order to maximise the benefits of intergenerational interaction.

Keywords: architecture intergenerational spaces, seniors and children integration, Poland

1. Introduction

Ageing population is a global demographic trend. By 2030, 1.4 billion people will be at least 60 years old [8]. In 2021 in Poland, as indicated by the National Census, one in five people will be 60 or older. These people make now up more than 23% of the population, and 10 years ago they accounted for 17% [6]. This means that societies need new ways to integrate older citizens to keep them active, healthy and engaged in society. The World Health Organisation emphasizes the need to invest in the promotion of intergenerational interactions to reduce ageing in both younger and older generations [11]. The commitment to promote and work toward the social, economic and political inclusion

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of all people of all ages is enshrined in the Sustainable Development Goals [9]. Population ageing, a process often referred to as the 'silver tsunami', not only entails an increasing lifespan, but also brings challenges to the design of urban space and spatial policy.

In this context, the issues of population ageing and intergenerational integration are becoming increasingly relevant to researchers, practitioners and policy makers [13]. It is becoming important to understand how different generations can work together to support each other while counteracting the negative effects of social isolation, especially among older people [2]. However, intergenerational relationships are not clear-cut. There are differences in the perceptions of elders by younger generations, as noted in a study [3] where young people had mixed attitudes towards elders. Despite these differences, global initiatives, such as those promoted by the World Health Organisation, point to the importance of investing in promoting intergenerational interactions [10]. Isolation and loneliness are serious problems among older people, as is the lack of access to quality education and care for children. A growing body of empirical research highlights the key role of intergenerational interactions in the promotion of health, physical activity and quality of life [12]. There are differences in the perceptions of elders by younger generations, as noted in a study [3], where young people had mixed attitudes towards elders. Despite these differences, global initiatives such as those promoted by the World Health Organisation point to the importance of investing in promoting intergenerational interactions [10].

Spaces for intergenerational integration can help to alleviate these problems. Appropriately designed spaces can help in improving the quality of life for both groups. Shared spaces can be more resource efficient and offer services tailored to the needs of both groups. Seniors often have time and life experience to pass on to younger generations. Children, on the other hand, can bring elements of fun, spontaneity and modernity into the lives of seniors. Both seniors and children need a variety of resources and services, such as health care, education or recreation [4]. For seniors, this includes the opportunity for better mobility, access to recreation and contact with younger generations. For children, a safe and stimulating environment to learn and play [5].

Consequently, the design of spaces that facilitate intergenerational integration is becoming increasingly relevant and crucial. Furthermore, urban spaces that are tailored to the needs of different age groups have the potential to support active participation of seniors in society, counteracting the perceived image of old age as a time of stagnation and isolation [1].

This article addresses the issue of a space for the integration of seniors and children in the small town of Grodzisko Dolne in Poland. The aim of this article is to analyse the conditions for creating an architectural concept of a facility for the integration of children and seniors in this particular location. The research method is in several stages and consists of a literature study on integration, a diagnostic survey, an analysis and synthesis of the information obtained

in the form of a functional-programmatic concept. The study has additional application value; it can also be used as a useful source of information in strategic and operational documents concerning the organisation of space in the selected location.

The article is based on the master's degree project of Zuzanna Chmura under the supervision of Anna Martyka at the Faculty of Civil and Environmental Engineering and Architecture, Rzeszow University of Technology.

2. Exploratory surveys in Grodzisko Dolne

Sociological research in the form of an interview (belonging to the diagnostic survey method) was conducted among the inhabitants of Grodzisko Dolne (Fig. 1).

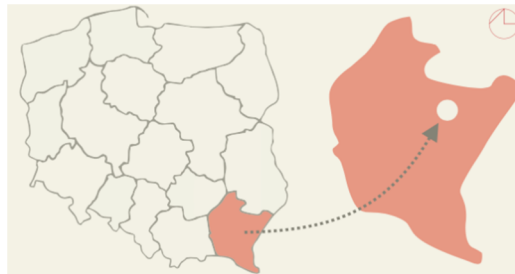


Fig. 1. Location of Grodzisko Dolne, compared to the rest of Poland.
Source: original work by Zuzanna Chmura

The village of Grodzisko Dolne, which lies in the Subcarpathian Voivodship of Lezajsk County, is in need of effective intergenerational measures to address the problems caused by the increasing number of people over the age of 64 (see Fig. 2).

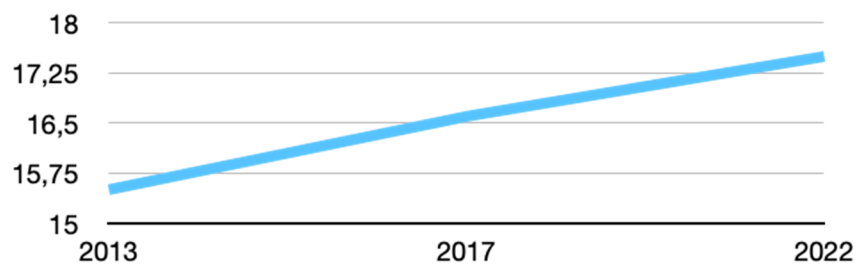


Fig. 2. Percentage of people aged 65 and over in the total population of Grodzisk Dolny at three time points. Source: [7] elaborated by Anna Martyka

The survey was designed to gauge the opinions of residents about the existing and desired programming offerings. It was decided to use face to face interviews due to the fact that seniors have a difficulty in accessing the internet as well as operating electronic devices. Interviews were conducted between mid-March and the end of April 2023 among residents (N=48). The respondents were divided into three age groups:

- young childless people aged 20–25 (N = 16);
- parents of pre-school children aged between 25 and 40 (N = 16);
- seniors aged 60 to 85 years (N = 16).

The interview consisted of five questions:

1. What services are missing in Grodzisko Dolne?
2. What new features would you like to introduce to Grodzisko Dolne?
3. Do you think a new kindergarten is needed in Grodzisko Dolne?
4. Should the kindergarten have inclusive functions?
5. What kind of integration would take place in the new kindergarten?

3. Results

The responses to the individual questions of each age group are shown in Figs. 3–6. In general, the results of the interviews regarding the introduction of new features to the village clearly showed that each of the age groups interviewed cared about their own needs (Figs. 3, 4).

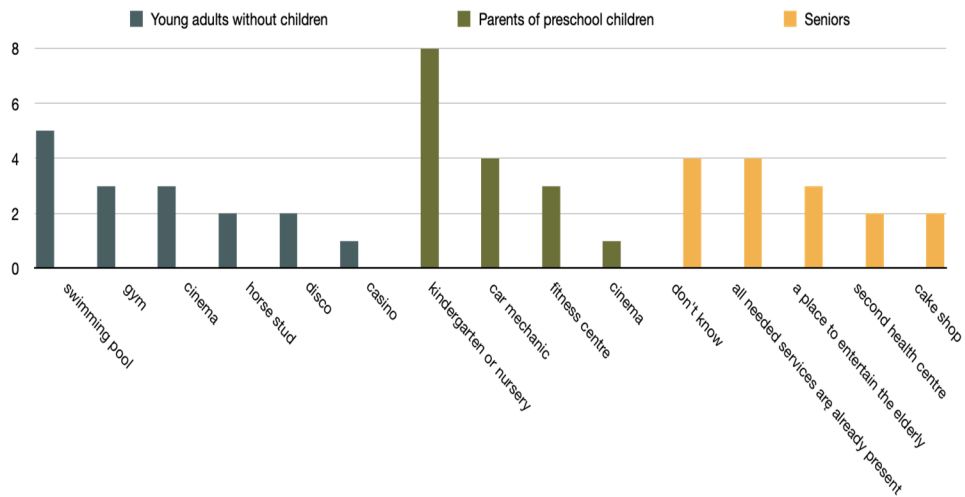


Fig. 3. Answers to question 1: What services are missing in Grodzisko Dolne?
Source: elaborated by Anna Martyka

Seniors, for example, wanted better facilities for forests and meadows; young people without children placed more emphasis on entertainment and recreation. Most parents with preschool children (8) answered that there is a lack of nursery and childcare facilities in town, young adults without children (N=5) answered that there is a lack of a swimming pool in Grodzisko Dolne, while seniors (N=8) do not know what functions and additional services they are missing. When it comes to proposing a specific new programme offer, the highest number of people from each age group declared a lack of recreational functions (N=14) and 10 parents of preschool children would like a better educational offer (Fig. 4).

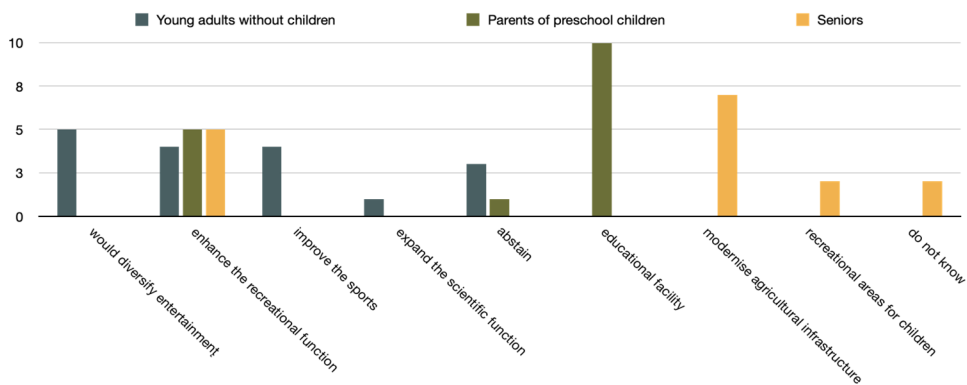


Fig. 4. Answers to question 2: What new features would you like to introduce to Grodzisko Dolne?
Source: elaborated by Anna Martyka

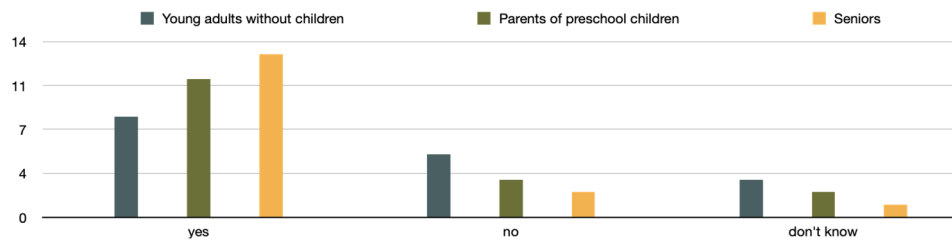


Fig. 5. Answers to question 3: Do you think a new kindergarten is needed in Grodzisko Dolne?
Source: elaborated by Anna Martyka

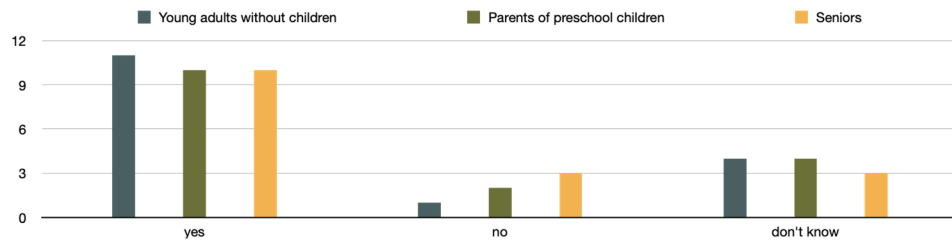


Fig. 5. Answers to question 4: Should the kindergarten have inclusive functions?
Source: elaborated by Anna Martyka

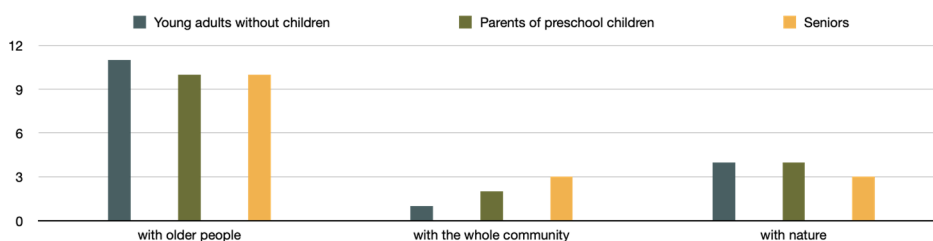


Fig. 6. Answers to question 5: What kind of integration would take place in the new kindergarten?
Source: elaborated by Anna Martyka

Interestingly, it was the largest number of seniors ($N=13$) who wanted a new kindergarten to be established in Grodzisko Dolne, with a clear majority of respondents from each age group surveyed supporting the establishment of an inclusive kindergarten (Fig. 5). The residents of Grodzisko Dolne are aware, globally, of the trend of an ageing population, as an overwhelming majority supported the integration of children and seniors ($N=31$) (Fig. 6). There were also ideas related to integration with the whole local community and nature. This information is insignificant, as it indicates a desire to create links between generations and establish different types of relationships.

Summarising the results of the interviews, it can be said that, despite focusing on their own needs, every age group surveyed expressed a desire to integrate, build intergenerational bridges and establish relationships. The survey showed that residents of Grodzisko Dolne are increasingly aware of existing social divisions and aim to bridge them through intergenerational activities. As empirical research shows, the project of an intergenerational kindergarten in Grodzisko Dolne can be a response to the needs of the community. Such an inclusive place will contribute to breaking down generational barriers by enabling relationships to be forged. The initiative can benefit from increased understanding, respect and harmony in the community, creating a space where generations can learn from each other.

4. Architectural concept for a kindergarten that integrates children and seniors

The empirical data obtained was used to develop an architectural concept for a kindergarten integrating children and seniors in Grodzisko Dolne. The main idea of the design is to design a friendly and attractive kindergarten in which children and seniors can integrate. For this reason, it was a deliberate effort to locate it in close proximity to an existing day care centre for seniors, to allow easy and regular contact between the two social groups. The area around the building was designed to maximize the use of outdoor space (Fig. 7). There is a square in the centre with low and high greenery. In the area there is a children's playground and resting areas for seniors. The entire plot space has been designed to allow easy and convenient movement around the site.

Efforts were also made to design a form of the building that blends harmoniously with existing buildings in the village of Grodzisko Dolne and with its natural assets. The beauty of nature is an inspiration that will be incorporated into the design. The aim is to encourage, through the nursery space, contact with nature and the discovery of its secrets by both children and seniors. An important element of the design concept is the use of natural materials to make the nursery space comfortable. In this way, it will be user-friendly for everyone. Through the use of natural materials, the interiors of the kindergarten will provide a comfortable and safe environment for children's development and learning (Fig. 8).

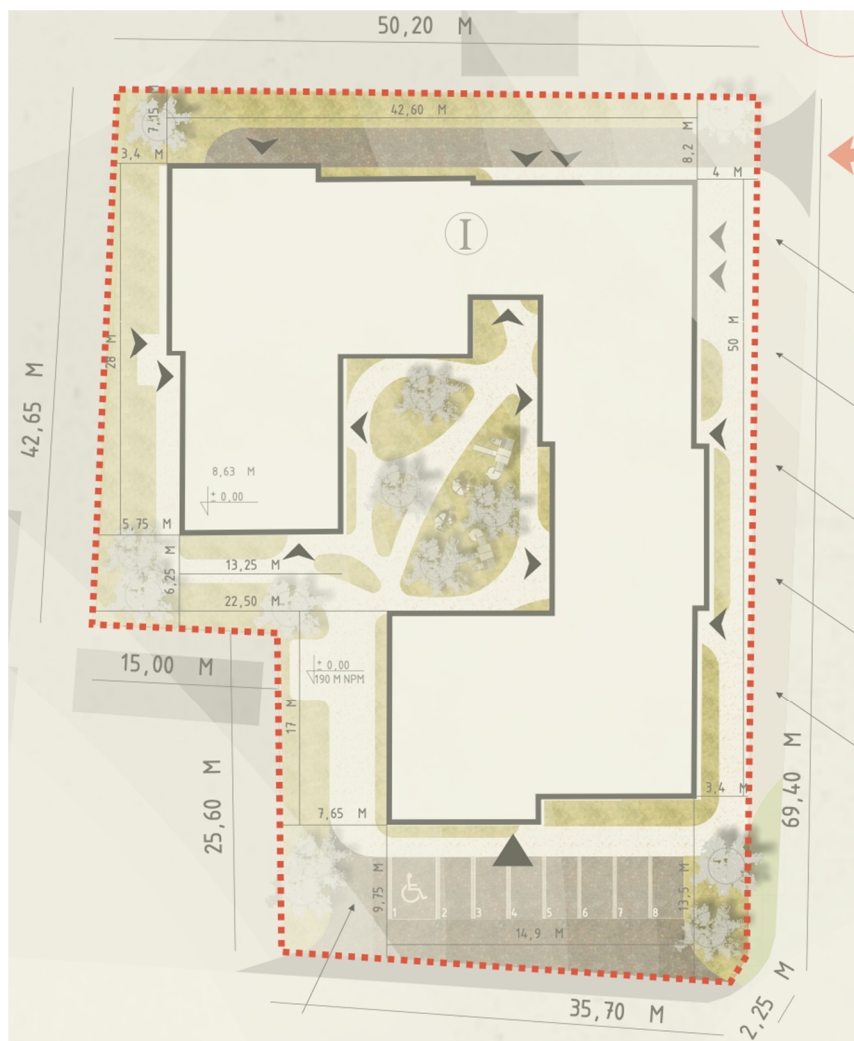


Fig. 7. Development concept for a kindergarten in Grodzisko Dolne.
Source: elaborated by Zuzanna Chmura

An important aspect of the design concept was the flexibility and functionality of the spaces, which will be adapted to meet the diverse needs arising from the age of the users. The design of the intergenerational kindergarten assumes that most spaces will be easily adaptable depending on the specific situation or type of activities. This will enable the kindergarten to make optimal use of the space.



Fig. 8. Visualisations of a kindergarten combining integration functions with senior citizens: west elevation, courtyard and three interior shots.

Source: elaborated by Zuzanna Chmura

The intergenerational kindergarten in Grodzisko Dolne has been designed, taking into account the division into different zones, to provide optimal conditions for children, seniors and staff. Each zone has its own purpose, fulfilling specific functions (Fig.9). The entrance area has a representative and welcoming role. When entering the childcare centre, the children meet in a spacious hallway. This area also houses the children's changing rooms, providing a convenient place to store their belongings. In addition, this part of the building contains an art room and toilets. Another important zone is the sports space. It contains a large gymnasium where children can develop their motor skills. Adjacent to the hall are ancillary rooms such as storage areas, which are needed to store sports equipment. Next to the sports depot, there are also designed accessible toilets for sports participants.



Fig. 9. Ground floor plan of a kindergarten that combines integration functions with senior citizens in Grodzisko Dolne. Source: elaborated by Zuzanna Chmura

A mental health zone is also envisaged. This is a place where children and seniors can take part in psychological consultations, as well as participate in various types of integrative activities. This zone aims to support the youngest children and the elderly who require additional psychological care. Another zone is an integration space. It includes a greenhouse where children and seniors will be able to participate in growing herbs, vegetables and fruit. These products will

then be able to be used in an integration room equipped with kitchen facilities. In this way, the youngest and the elderly people will learn to prepare meals together and have the opportunity to integrate by cooking and eating together. A dining area is also planned for the kindergarten. The design of the kindergarten takes into account the technical area of the building and the rent offices, which are accessible from outside the building. These are places where the kindergarten staff can use the necessary facilities and technical resources. The rental offices also provide an additional source of income for the facility.

5. Summary

In recent years, there has been a significant development of innovative infrastructure and community initiatives on a global scale, aimed at promoting intergenerational constructs [13]. This trend suggests a growing interest in shaping communities that enable integration between generations and demonstrate the empirical proven benefits of such interactions.

Implementing urban services adaptation for the needs of the elderly population and children is a complex challenge that requires not only bold policies, but also coordination of activities by different stakeholders [5]. Further research is also indispensable here, focusing on the integration of data on service providers and service recipients, as well as the analysis of the distance thresholds that seniors and children are willing to travel.

In the context of growing social awareness in Grodzisko Dolne, a significant demand for intergenerational projects has been observed. Such initiatives can generate benefits not only for individuals from different age groups but also for society as a whole. Exploratory research indicates that there is a real need and aspiration for intergenerational integration in smaller communities.

The conceptual design presented of an intergenerational kindergarten in Grodzisko Dolne can serve as an inspiration for policy makers and citizens to take community integration measures at different levels – both bottom-up and systemic. This article also has the potential to become an educational tool, raising public awareness of the value and importance of spaces that promote intergenerational integration.

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