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The Intergenerational Co-Design of Glasgow COP26 Souvenirs

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Abstract

There has been an increasing interest in intergenerational activities where young people and older adults work together in the exchange of knowledge, new ideas, methodologies and ways of thinking. With the leading international climate change conference in Glasgow in Nov. 2021, this paper presents an intergenerational co-design COP26 project where co-design pairs designed and made Glasgow COP26 souvenirs, exhibited and sold them in a COP26 'pop-up' shop. The project delivered important learning and teaching including project launch, studio sessions, external design reviews, and prototyping.

Keywords: intergenerational design, co-design, design creativity, design education

1. Introduction

In recent years we have witnessed an increasing interest in intergenerational work. This response is mainly down to the substantial demographic changes we have observed in our societies, changes in national government-backed economic and welfare patterns, the widespread shift from an industrial to a service/ knowledge-based society especially in the West, the gradual dissolving of traditional family structures, and a general decline in active citizenship. These changes have contributed to an individualisation of societal structures and to increasing age segregation in our societies. There is widespread acknowledgement that intergenerational relationships are extremely important in the day-to-day lives of older adults (Antonucci, 1990; Hansson and Carpenter, 1994; Lang and Fingerman, 2004; Uchino 2004). Intergenerational projects do not necessarily need to be limited to those between family members. Studies have shown that interactions between older and younger people, who are not related to each other, can promote social and civic engagement, lifelong learning, and improve the health and well-being of older adults, whilst also improving college and middle school students' awareness of and respect for the special needs of the older population (Ogozalek, 1994; Ellis and Bruckman, 2002). In a design context, the design of many of today's products, services and systems is carried out by young adults with a very different view of the world than older adults. In many cases, design and development teams have very limited first-hand knowledge and experiences of age-related differences and how those differences might affect the adoption and use of products, services and systems (Newell et al., 2006; Clarkson and Keates, 2002). Therefore, it is important to fully involve conventionally 'relevant but absent' social groups such as older adults in the design and development process (Xie et al., 2010).

This intergenerational project commenced with the launch of a project brief that asked all interested parties to design a souvenir to commemorate COP26 that is being held in Glasgow in November 2021. The initial project call-for-contributions, undertaken by co-design pairs of the Centre for Lifelong Learning community (CLL) and undergraduate and postgraduate design students from the Design, Manufacturing and Engineering Management (DMEM) department at the University of Strathclyde, asked for budding designers to take part in an 8-week project that will give co-design pairs an

opportunity to showcase their creative talents. Each co-design pair was supported through designing and making a souvenir through a series of key stages including research, identifying customer needs, concept design, making prototypes, testing, exhibiting, and ultimately selling their souvenir. The project started during a period of Covid-19 restrictions including lockdown in Glasgow where the majority of the population were asked to work from home, non-essential travel was forbidden, the wearing of face masks was mandatory, and strict social distancing measures were in place. At this time, all university teaching was conducted via video teleconferencing software such as Zoom or Teams.

The Covid-19 pandemic has had a major impact on all aspects of humanity. Our health and wellbeing along with our social, economic, and cultural lives have been severely disrupted by the ongoing pandemic. While older adults have been most at risk from the virus itself, young adults (including university students) have disproportionately suffered from its socio-economic fallout. Many younger adults and recent university graduates across the world have been left in a jobless limbo-land with very little hope of sustainable employment in the near future. Today, more than 620 million young adults globally are neither working nor studying. The impacts of the Covid-19 pandemic on people not only affected individuals' mental health and wellbeing but it also had serious impacts within the family context as well as impacts within the context of education. The Covid-19 pandemic has had a profound impact on Scotland's health, economy and society, with damaging impacts on the way of life and wellbeing of people. Several studies have reported low mental well-being during lockdown with increased levels of depression, anxiety, and isolation. As national governments look to build back better, it is more important than ever to create a national cross-government strategy on health and wellbeing inequalities, and it is vital that both young and older adults are placed at the heart of any future plan. The potential of design to transform and enhance lives is well understood (Design Council, 2018; Rodgers, 2019). It is widely acknowledged that activities such as designing, making, creating, and testing are accepted as having significant benefits, especially for young and older adults, in building their confidence, knowledge, skills, and economic potential. The view that everyone has the capacity to use design competencies has encouraged the authors to consider the benefits of intergenerational co-design projects such as this one for developing “good job” prospects, social mobility, and empowering young and older adults. This intergenerational co-design project aims to deliver new creative enterprise possibilities through the tangible designed souvenirs generated during this research, challenging preconceived ideas as to the creative capacities of both young and older adults.

2. Context

The University of Strathclyde became an Age-Friendly University in 2012 and committed to 10 guiding principles. The work contained within this article relates to the fourth principle:

- “To promote intergenerational learning to facilitate the reciprocal sharing of expertise between learners of all ages”

These principles complement the pre-existing work which has been undertaken by the University to offer learning opportunities to all regardless of age or stage in life and was the driving force in the creation of the Age-Friendly Academy @ Strathclyde in 2017. Led by the Centre for Lifelong Learning, which houses the University’s unique programme of courses aimed at those aged 50+, it also serves to highlight the growing portfolio of intergenerational work and research output which relates to the opportunities and challenges of an ageing society. You will note that opportunity appears before challenge - this is at the heart of the University’s positive ageing ethos.

There are many definitions of intergenerational learning but for the purposes of this paper, we will use the following offered by the European Commission (2018):

> *“Intergenerational learning (IL) is where people of all ages can learn together and from each other. Beyond the transfer of knowledge, IL fosters reciprocal learning relationships between different generations and helps to develop social capital and social cohesion in our ageing societies.” (Electronic Platform for Adult Learning in Europe [EPALE], 2018).*

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In the UK, intergenerational learning opportunities tend to focus on primary and secondary level education and as such research analysing its challenges, benefits and outputs concentrate on school-age children. There is less literature exploring intergenerational learning in Higher Education. This study aims to explore amongst other design-led outcomes, intergenerational experience within an HE-setting whilst also capturing attitudes to aspects such as design, climate change and local culture. It is an exploratory piece of work and one which will inform the development of a model for future delivery.

3. Methodology

This intergenerational project commenced with the launch of a project brief that asked all interested parties to design a souvenir to commemorate COP26 being held in Glasgow in November 2021. The initial project call-for-contributions, undertaken by co-design pairs from the Centre for Lifelong Learning community (CLL) and undergraduate and postgraduate design students from the Design, Manufacturing and Engineering Management (DMEM) department at the University of Strathclyde, asked for budding designers to take part in an 8-week project that will give co-design pairs an opportunity to showcase their creative talents.

The overarching aims of this intergenerational co-design project were threefold:

1. We wanted to integrate older adults into a university-based co-design project that would keep them active and involved in local issues - specifically the COP26 major event in Glasgow in November 2021;
2. We wanted to increase social interaction opportunities amongst our design students as the Covid-19 restrictions were leading to significant isolation and mental health issues amongst students;
3. We wanted to explore how the co-designed products created by the co-design pairs would be affected by integrating different perspectives and experiences of older adults.

Each intergenerational co-design pair was supported through designing and making a COP26 souvenir through a series of key stages including research, identifying customer needs, concept design, making prototypes, testing, exhibiting, and ultimately selling their souvenir.

Table 1. Design for all 8-week programme details.

Week	Focus	Detail
1	Launch Project	The design brief
2	Design Studio	Research, background stage, exploratory stage
3	Work in Progress Review [1]	Concept design generation
4	Design Studio	Concept design generation, evaluation and selection
5	Work in Progress Review [2]	Design development
6	Design Studio	Prototyping souvenirs, physical and digital mock ups.
7	Work in Progress Review [3]	Souvenir manufacture, testing.
8	Glasgow Souvenirs Completed	Presentation of completed souvenirs for COP26, Glasgow.

The co-design pairs considered the costs involved in the production of their souvenirs including raw materials' costs, making costs, and selling costs. The co-design pairs also considered the materials used in the manufacture of their souvenirs. Here, the students looked wherever possible to utilise sustainable materials and manufacturing processes that minimised harmful environmental impacts. The students were also asked to review carefully the physical size and the intended use(s) of their souvenir. Could, for example, the souvenir have more than one use? Moreover, the co-design pairs were challenged to think about waste and also to think more widely about the concept of "value" in the souvenir that they designed and made. Lastly, the students were asked to ensure that their souvenir related to both the city of Glasgow and to COP26. To help us understand their experience, all participants were invited to complete a survey at the beginning and end of the study encompassing a number of questions about demographics, expectations and experiences. We planned to undertake a

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basic analysis of this feedback including frequencies, key themes identified through both word clouds and content analysis.

During the 8-week co-design project, which comprised a series of fundamental stages (Table 1), the student pairs considered a number of important factors in the design and manufacture of their souvenirs.

Figure 1 shows some of the stages the co-design pairs worked through. Here, the intergenerational co-design pairs have worked through a brainstorming session to generate concept ideas using mind mapping techniques, freehand drawing to explore alternative concepts and externalise their thoughts, CAD renderings exploring product details, and early mock-ups for a potential COP26 souvenir.

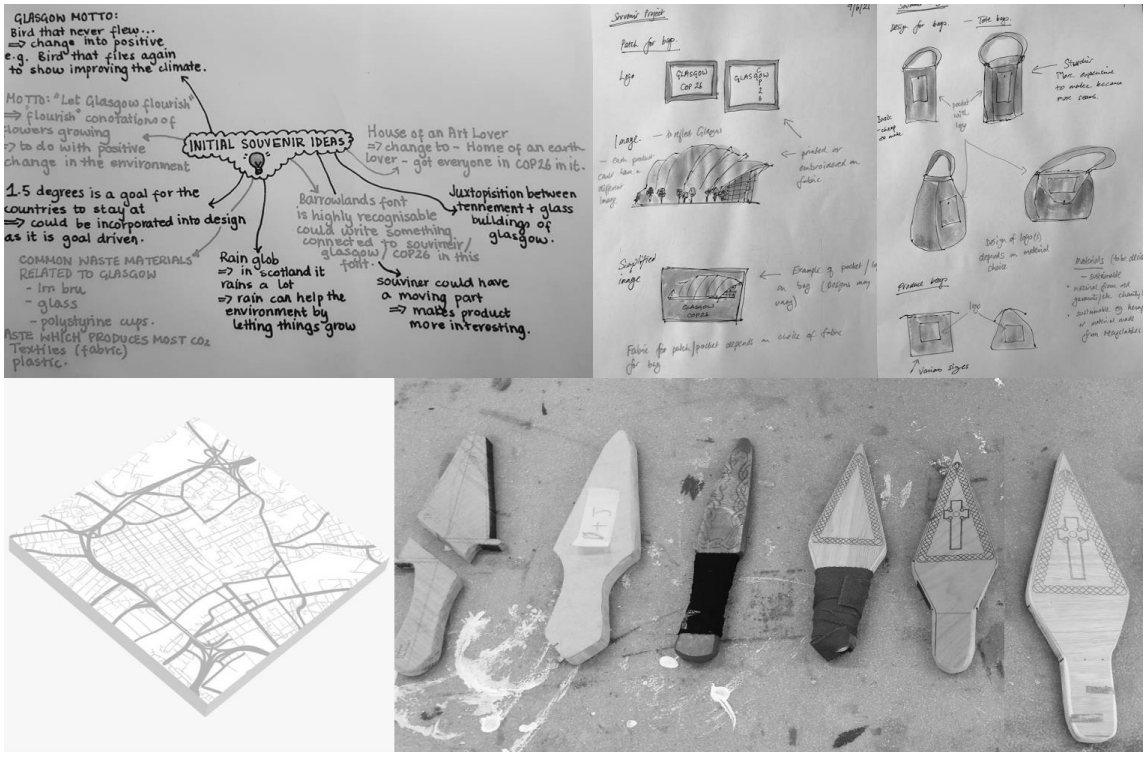

Figure 1. Top Row, Left to Right – Brainstorming Initial Souvenir Ideas; Early Sketches for COP26 Souvenirs, Bottom Row, Left to Right - CAD Rendering for COP26 Coasters Detail; Prototype Wooden COP26 Souvenirs

4. Results and Analysis

The main results of this practice-based co-design project is the design and development of 17 unique souvenirs to commemorate the city of Glasgow hosting COP26 in November 2021. A selection of the 17 unique souvenirs is shown in Figure 2. As described earlier, this intergenerational Glasgow Souvenir project lasted 8 weeks and was conducted mainly online with the exception of students prototyping and manufacturing their souvenirs in the university's design workshops. One of the aims of the project was to explore the creative talents of older adult learners and design students working together on designing and developing a souvenir for Glasgow to coincide with the city hosting COP26 in November 2021. The older adult learners were recruited from the Centre for Lifelong Learning community (CLL) at the University of Strathclyde and the design students were recruited from the undergraduate and post-graduate design programmes. Pairing of the design students and adult learners was completed at random.

The souvenirs designed and manufactured by the co-design pairs included a set of bookmarks inspired by iconic architectural landmarks in and around Glasgow, solar powered glass jar lanterns depicting famous Glasgow murals including 'St Mungo' and 'Wind Power', drinks coasters made from waste timber, an automata based on Glasgow's coat of arms, a new umbrella repair service where called "Dreich" that takes old, broken and discarded umbrellas and gives them a new lease of life by fitting

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new handmade reclaimed wooden handles, and bespoke manufactured utility bags made from recycled plastic bags that have been thrown away. An exhibition of the Glasgow COP26 souvenirs was held to coincide with COP26 in the first week of November, 2021 and an accompanying catalogue (Figure 3) was produced for visitors to take away.

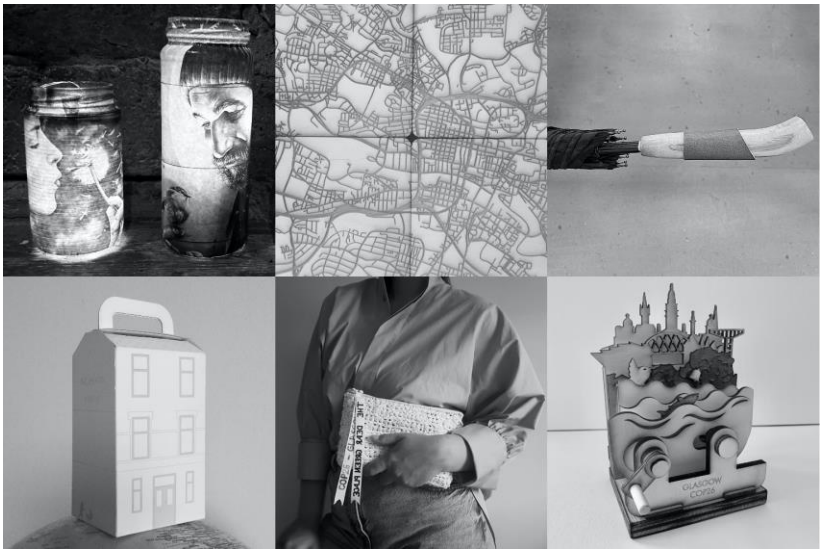

Figure 2. Six of the 17 Glasgow COP26 Souvenirs (top row, left to right – Glass Jar Mural Lanterns, "Azulejo" Coasters, "Dreich" Revived Umbrellas; bottom row, left to right - "Home" Gift Box, Recycled Plastic Utility Bags, Glasgow Coat of Arms Automata

Figure 3. Glasgow COP26 Souvenir Project Catalogue

4.1. Demographics of Participants

A total of 13 older adult learners and 22 design students were involved in the Glasgow COP26 Souvenir project and 19 of the 35 participants responded to a number of questions at the outset of the project. As we can see from Figure 4 (left), more than half of the respondents involved in the project were aged 55+. Also, in Figure 4 (right), we can see that over half of the participants involved in the project had been educated to at least degree level with over 25% having a postgraduate qualification in subjects including English Literature, Nursing, Law, Architecture, and Pharmacy.

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In addition to the participants' formal educational qualifications, the older adult learners possessed a wide range of professional experiences including work-related practices in far-flung locations such as Lesotho, Namibia, Thailand, and Bulgaria. Many of these positions involved significant demands and responsibilities such as managing and coordinating an insurance programme for the UN transitional force (UNTAG) in Africa, working for more than 40 years as a community pharmacist, and a registered nurse with a variety of specialties including being a suicide prevention trainer.

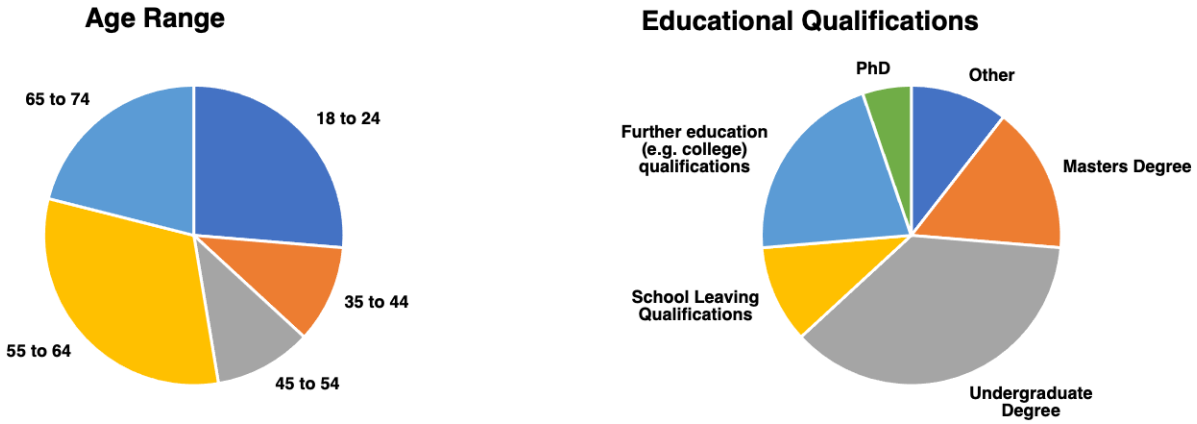

Figure 4. Participants' age and educational qualifications

4.2. What Does Design Mean to You?

Table 2. What does design mean to you? (17 responses)

Theme	Number of participants
* Design is about Creativity	6
* Design is about Function	5
* Design is Problem Solving	4
* Design is about Communication	1

Before the project started, we asked all of the participants – what does design mean to you? The responses (17 of the 35 participants responded) to this question are shown in Table 2. Here, the participants' responses were analysed and the major themes emanating were:

- Design is about Creativity - "Design means creativity and imagination…".
- Design is about Function - "Design is a way to express thoughts, feelings and emotions, design identifies materials and thinks up uses for it, design is beauty and functionality, design can connect you to a product that goes beyond function alone".
- Design is Problem Solving - "Design is mostly problem-solving; you're creating something functional that does something that other things don't do, or which does it better. If it's beautiful as well as functional, all the better".
- Design is about Communication - "Design is a tool to aid communication…"; "Design is about communication - in that you aim to convey something (status, value, character, belonging) in your work".

Table 2 shows that design, to the participants, has a range of meanings from something that is about creativity (six responses) to something that relates to “function” (five responses), that it is about “solving problems” (four responses), and is about “communication” (one response).

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4.3. Why Did You Sign up for the Project?

Table 3. Why did you sign up for this project? (From a total of 17 participant responses)

Theme	Number of participants
* To Connect and Collaborate	4
* Artistic Expression/ Creativity	4
* To Connect with People from Different Backgrounds	3
* Product Development	3
* To make a Contribution to COP26	3

Table 3 shows the key reasons why participants signed up for this intergenerational co-design project. More than half of the participants spoke about the wide-ranging opportunities it offered to them. First, we utilised a content analysis approach (Bryman, 2001), which is a very transparent research method that offers great flexibility in a wide variety of different kinds of information, to identify the major themes. From these themes we then quantified the number of times participants listed them as reasons for signing up for the project. Table 3 shows that the most significant reasons for taking part in the project for the participants was to "connect and collaborate" and to "express themselves creatively". Here, four participants stated that the opportunity to connect and collaborate with the younger generation designers was very appealing to them. Four participants also saw the co-design project as a great opportunity to take part in a major and internationally important event (COP26) that would take them out of their comfort zone and allow them to express their creativity. Three participants saw this co-design project as an excellent opportunity to try something new and meet people from different backgrounds and experiences whilst creating something to exhibit at the COP26 souvenir exhibition. Three participants looked upon the project as a great opportunity to actually design something and see it come to fruition and to work through the total design process. Lastly, three participants viewed the project as an opportunity to try something new and to make a small contribution to COP26 highlighting the diversity and strength of product design and development talent within Glasgow.

4.4. What Did You Hope to Achieve in the Project?

We also asked the participants at the start of the project what they hoped to achieve in the project. One quarter of the participants stated that they simply wanted to enjoy the process. This enjoyment included the challenge of coming up with a good solution to the brief - i.e., one that is well connected to both Glasgow and the CoP26 event, and is also as unusual, useful and attractive as possible. Several participants also mentioned that they wanted to learn new things – e.g., learn about product costs, pricing, etc., to learn to produce something that they can always be proud of and to say that it was their first product to ever sell!, and also to learn new skills and processes and to be proud of designing something sustainable or something that promotes sustainability by helping to reduce waste in some way. Several of the participants also articulated that what they hoped to achieve was experience-related. For example, to gain experience of working together with someone who is not experienced in design and try and work together to achieve common goals.

4.5. Project Experiences

Table 4. Was taking part in this project what you expected it would be?

Response	Number (%)
Successful	7 (54%)
Neutral	3 (23%)
Unsuccessful	3 (23%)

Table 4 illustrates the participants' experiences of the co-design project and categorises these as either "successful", "neutral" or "unsuccessful". At the conclusion of the project, we asked the participants to

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complete a questionnaire of how they found the COP26 souvenir project. Here, we asked the participants about their overall experiences of the project through a follow-up questionnaire. Here we asked the participants to judge whether taking part in the intergenerational co-design project was "successful", "neutral" or "unsuccessful" for them. Table 4 shows that over half of the participants thought the project was successful for them. Several of the participants said that the reality of the project was better than they imagined it would be. Some participants enjoyed the flexibility and freedom of the project whereas for others the formation of collaborative design partnerships and working in a small creative community was the most enjoyable part of the project. For others, a critical component of the project was the process of discovery and development, including the teaching and learning materials delivered as mini-lectures.

Other successful project experiences stated by the participants included - “I enjoyed working with my partner, formulating a design for the project, creating prototypes, ironing out problems and finalising the design. I also enjoyed using equipment in the lab and the satisfaction of finally creating the object we had designed”, “The interaction and bouncing ideas about the design, also the design reviews and feedback / discussion about the ideas and the mini lectures that Paul did early on were really interesting". In terms of challenges there were a number of different issues that the participants highlighted. This included issues around ideation, time management, design software, time commitments, and the challenges posed by Covid-19 and restricted working practices. One participant commented that they did not feel stretched enough by the process whereas another stated conversely that they underestimated how busy they would be during the 8-week co-design project.

4.6. Working with your Co-Design Partner

Table 5. How successful was working with your co-design partner?

Response	Number (%)
Successful	8 (62%)
Neutral	3 (23%)
Unsuccessful	2 (15%)

Table 5 shows the participants' responses about their experience of working with their co-design partner. Almost two-thirds of the participants who responded considered the co-design project to be a success. The participants' responses were generally positive with a number of participants commenting on the strength of their working relationships. Participants' feedback included challenges around time management and there was one instance where the co-design team did not work out, which framed their overall experience of the project. The majority of co-design pairs, however, worked very well together. “We got on very well and could bounce ideas of each other. Although we came to the project with different ideas, there were no disagreement over the final design.” (Respondent 2.6). “I got very lucky with my partner. We were both fairly easy going and got along, communicated and worked well together. Apart from working together in the workshop each week, we agreed an action plan to split up various tasks away from the workshop. This ensured that the workload was fairly evenly shared and we each knew what we needed to be doing.” (Respondent 2.4). “My co-design partner was great but she also was unexpectedly busy." (Respondent 2.1).

In terms of using skills developed in the future, there was a wide range of different answers provided. The majority of responses focused on that they would like to use the new knowledge and skills developed in the future or that they would definitely be using them. “Definitely. I think it has been very beneficial as I continue my degree and future career path.” (Respondent 2.5). “I liked the experience of producing something tangible so this is something I would definitely pursue in the future.” (Respondent 2.4). Some participants were very specific about how they would like to see their skillsets used in the future - “I'd love to use the workshop again to make some more similar (or different) things. I know about the monthly payment and the daily rate schemes of pre-Covid days and if these become available again, I'd be interested in learning how to operate the machines myself and experimenting with new ideas.” (Respondent 2.13). “I hope so, I revisited some CAD software and

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tried out a graphics tablet and the techniques discussed in structuring a design process was beneficial. Although it will most likely be on a hobby basis!" (Respondent 2.12).

4.7. Reflections and Future Plans

Table 6. Would you consider taking part in a project of this nature again?

Response	Number (%)
Definitely Yes	8 (62%)
Neutral	3 (23%)
Definitely No	2 (15%)

Table 6 shows the participants' responses to the question - would you consider taking part in a similar project in the future? As can be seen in Table 6, a clear majority of participants (62%) said they would definitely consider doing a project similar to this one in the future. We also asked the participants if they would change anything about the co-design project. Here, participants stated they would guarantee they devoted enough time and resources to do it properly including ensuring they made use of the design and manufacturing workshop to benefit from the practical experiences of the technical staff. Other participants stated that they now know what kinds of questions to ask at the early stages of the design process about materials' usage that they didn't previously know how to ask. Reflecting on the intergenerational project as a whole, we asked the co-design pairs to share their personal "reflection-on-action" (Schon, 1987) accounts of the project. That is, what were the key impacts and effects of the intergenerational co-design project. The responses included the following:

- "I liked the experience of producing something tangible - this is something I will pursue in the future."
- "I enjoyed working with my partner, formulating a design for the project, creating prototypes, ironing out problems and finalising the design. I also enjoyed using equipment in the workshop and the satisfaction of finally creating the souvenir we had designed."
- "We got on very well and could bounce ideas of each other. Although we came to the project with different ideas, there was no disagreement over the final design."

These responses from the participants clearly illustrate that the aims of the co-design project at the outset have been achieved. That is, we set out to integrate older adults into a university-based co-design project that would keep them active and involved in local issues - specifically the COP26 major event in Glasgow in November 2021. We also aimed to increase the social interaction opportunities amongst our design students in an effort to address isolation and mental health issues amongst our students. Furthermore, the intergenerational co-design project has also illustrated how co-designed products created by co-design pairs with vastly different skills, perspectives and experiences can lead to highly successful designed products and process outcomes.

5. Conclusions

The "Design for All" project described in this paper demonstrates the utility of intergenerational co-design projects that incorporate older adults in higher education. At the outset of this intergenerational co-design project the key aims were to integrate successfully older adults into a university-based co-design project that would keep both young and old participants active and involved in local issues. In this case, the COP26 major event held in Glasgow, Scotland in November 2021. The co-design project also aimed to increase social interaction opportunities amongst our design students and older adults as the Covid-19 restrictions were leading to significant isolation and mental health issues amongst the students. Furthermore, the project aimed to explore how the co-designed products created by the co-design pairs would be affected by integrating different perspectives and experiences of older adults. The results presented here suggest that the majority of the participants had an extremely positive experience, and that there was a large variety of different skillsets, motivations and interests that came together to produce the souvenirs. Developing such a project is not without its challenges, however. Despite delivering a number of design and development workshops, many of the participants involved in this project noted that their skillsets (at least initially) were lacking, and not all co-design pairs

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continued throughout the 8 weeks due to other work commitments. Furthermore, some of the participants reported a range of challenges to taking part in the work, although none seemed insurmountable and the experience may be related to the unpredictability of working within the context of the Covid-19 pandemic at the time. Key outputs of this work are the 17 souvenirs successfully designed and developed and the subsequent exhibition held during COP26 in Glasgow as well as the legacy exhibition catalogue and online shop where the souvenirs can now be ordered and purchased. As such, this work has successfully addressed some of the major issues surrounding "Healthy Ageing" in the UK such as exploring the capacity of older learners to apply new and existing knowledge and skills to showcase their creative potential at a large-scale event (COP26). Furthermore, this approach aligns with the University of Strathclyde's Age Friendly Academy ethos of offering something for everyone regardless of age or stage in life alongside wider global health concepts around developing and maintaining functional abilities into the later years of life (WHO, 2021). The success of the intergenerational co-design COP26 project has resulted in the authors, in collaboration with the co-design participants, currently exploring options for the long-term sustainability of this intergenerational project and other future collaborative design initiatives.

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