

บทคัดย่อ

ผู้เขียนเชื่อว่าวัสดุทุกสิ่งบนโลกล้วนมีความงามและเอกลักษณ์เฉพาะตัว และมนุษย์ในฐานะผู้สร้างสรรค์สามารถออกแบบเพื่อเพิ่มคุณค่าให้กับวัสดุเหล่านั้นได้ แม้แต่วัสดุเหลือใช้ก็ยังคงมีคุณค่าในตัวเอง ในบริบทปัจจุบัน การบริโภคเครื่องใช้ทั่วโลกและการเกิดของเสียที่ตามมา ยังคงอยู่ในระดับสูง โดยการบริโภคเครื่องใช้ประเภทนี้อุตสาหกรรมทั่วโลกมีปริมาณมากกว่า 500 พันล้านลิตรต่อปี ส่งผลให้บรรจุภัณฑ์เป็นองค์ประกอบสำคัญของขยะมูลฝอย แม้มีเพียงบางส่วนบรรจุในขวดแก้ว แต่ปริมาณสะสมของฝาขวดโลหะก็เป็นแหล่งกำเนิดขยะโลหะจำนวนมาก สถานการณ์ดังกล่าวสะท้อนความจำเป็นของการออกแบบที่คำนึงการใช้ทรัพยากรอย่างคุ้มค่าและการนำวัสดุกลับมาใช้ใหม่อย่างสร้างสรรค์ โดยเฉพาะ “ฝาขวดจิบ” ซึ่งเป็นโลหะที่มีลวดลายแตกต่างกันไปตามยี่ห้อเครื่องดื่ม งานวิจัยนี้จึงมุ่งนำฝาขวดจิบที่ใช้แล้วกลับมาสร้างสรรค์เป็นเครื่องประดับที่มีคุณค่าทางสุนทรีย์และคุณค่าทางจิตใจ ทั้งต่อผู้ออกแบบและผู้สวมใส่ วัตถุประสงค์ของการวิจัย ได้แก่ 1) เพิ่มคุณค่าให้กับฝาขวดจิบที่ใช้แล้วโดยเปลี่ยนให้เป็นชิ้นส่วนของเครื่องประดับ 2) จัดกิจกรรมเวิร์กช็อปทำเครื่องประดับด้วยมือสำหรับบุคคลที่มีความบกพร่องทางร่างกาย จิตใจ สติปัญญา หรือประสาทสัมผัส เพื่อพัฒนาศักยภาพและส่งเสริมการมีส่วนร่วมในสังคม และ 3) พัฒนาเวิร์กช็อปให้เป็นกิจกรรมที่มีความยั่งยืน และเป็นกรณีศึกษาในการนำไปปรับใช้ในประเทศอื่น ๆ ได้ในอนาคต การวิจัยเป็นรูปแบบการวิจัยและพัฒนา (research and development: R&D) โดยรวบรวมฝาขวดจิบจากร้านอาหาร แล้วทดลองแปรรูปด้วยเทคนิคการตี ทบ เคาะ และตอก เพื่อปรับเปลี่ยนรูปทรงให้กลายเป็นเม็ดลูกปัด ก่อนนำมาประกอบเป็นเครื่องประดับที่สามารถปรับเปลี่ยนรูปแบบได้ กระบวนการที่พัฒนาขึ้นถูกนำไปใช้เป็นต้นแบบในการจัดกิจกรรมเวิร์กช็อปและประเมินผลจากการดำเนินงานจริง ผลการวิจัยพบว่าสามารถพัฒนาเครื่องประดับจากฝาขวดจิบที่ใช้แล้วให้เกิดความงามและคุณค่าใหม่ได้ ผู้เข้าร่วมสามารถผลิตผลงานด้วยตนเอง เกิดความภาคภูมิใจและได้รับการยอมรับ บางชิ้นงานถูกนำไปจัดแสดงและจำหน่ายผ่านร้านของมูลนิธิ รายได้ถูกนำกลับไปสนับสนุนกิจกรรมต่อเนื่อง งานวิจัยสะท้อนพลังของการออกแบบในการเพิ่มมูลค่าวัสดุเหลือใช้ ควบคู่กับการสร้างคุณค่าทางสังคม เศรษฐกิจ และจิตใจอย่างยั่งยืน และสามารถนำรูปแบบกระบวนการดังกล่าวไปประยุกต์ใช้กับบริบทอื่นหรือในต่างประเทศได้ในอนาคต

คำสำคัญ : วัสดุที่ยั่งยืน, เครื่องประดับที่ทำขึ้นจากวัสดุที่ผ่านการใช้งานมาแล้ว, ฝาขวดจิบ, ธุรกิจเพื่อสังคม

To Empower People Who are in Disadvantage Groups and Build Community Through a Handmade Jewelry-Making Workshop From Reclaimed Materials

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Abstract

The author believes that every material in the world possesses its own beauty and uniqueness, and that human beings, as creators, can enhance the value of those materials through design. Even discarded materials retain intrinsic value. In the current global context, beverage consumption and the resulting waste generation remain at high levels. Global soft drink consumption exceeds 500 billion liters annually, making beverage packaging a significant component of municipal solid waste. Although only a portion is packaged in glass bottles, the cumulative number of metal crown caps constitutes a considerable source of metal waste. This situation highlights the need for design approaches that emphasize resource efficiency and creative reuse—particularly of crown caps, which feature distinctive patterns varying by beverage brand. This research therefore aims to transform used crown caps into jewelry with aesthetic and emotional value for both designers and wearers. The objectives are: (1) to add value to discarded crown caps by converting them into jewelry components; (2) to organize handmade jewelry workshops for individuals with physical, mental, intellectual, or sensory disabilities in order to enhance their capabilities and social participation; and (3) to develop the workshop model into a sustainable activity and can be a case study to adapt with other countries in the future. The study employs a Research and Development (R&D) methodology. Crown caps were collected from restaurants and experimentally reshaped through hammering and dapping metal techniques into bead-like elements, then combined into adjustable jewelry pieces. The developed process was implemented as a prototype workshop and evaluated in practice. The results demonstrate that used crown caps can be transformed into jewelry with renewed beauty and value. Participants were able to create their own pieces, fostering pride and social recognition. Some works were exhibited and sold through a foundation shop, with proceeds reinvested to support ongoing activities. The research underscores the power of design to upcycle waste materials while generating sustainable social, economic, and emotional value, and the developed process can be further adapted and applied in other contexts or internationally in the future.

Keywords: sustainable materials, reclaimed Jewelry, crown caps, social enterprise

Introduction

Certain groups in society are marginalized due to their social and economic positions. Mainstream education does not always provide disadvantaged groups with opportunities to develop skills and experiences that enable social inclusion (Starky, 2017). In England, some of the most disadvantaged populations live without adequate support or equality, often due to factors such as poor internal group management and socio-economic deprivation. Although many individuals in the United Kingdom face multiple disadvantages, a large proportion are people with disabilities (Equality and Human Rights Commission, 2016).

It is widely recognized that individuals from disadvantaged groups have fewer opportunities compared to those in more favorable circumstances. They often encounter significant challenges in securing employment and accessing education. Furthermore, communities face numerous social issues that government bodies or local authorities are unable to address comprehensively (Gidron & Hasenfeld, 2012).

Despite the growing presence of social enterprises and community-based initiatives supporting disadvantaged groups, there remains a limited body of research examining how creative skill-based workshops within social enterprise settings can simultaneously address social inclusion, skill development, and environmental sustainability. Existing studies primarily focus on employment generation or policy frameworks, with less attention given to practice-based models that integrate recycled materials, artistic production, and empowerment of people with disabilities. Furthermore, there is insufficient exploration of how small-scale social enterprise projects can function as replicable models that enhance both social participation and environmental awareness among marginalized groups. Therefore, a clear research gap exists in understanding how socially driven creative workshops—such as jewelry making from reclaimed materials—can operate as an inclusive, sustainable social enterprise model that benefits disadvantaged communities while addressing waste-related challenges.

Social enterprises are businesses that aim to create positive social change by reinvesting profits in social and environmental causes. They operate across

various sectors and often promote inclusive participation, with some focusing specifically on supporting people with disabilities. One example is TimeBuilders, a local charity in Sheffield that provides disadvantaged groups with opportunities to contribute to their communities (Starky, 2017). The organization welcomes members and volunteers and runs several initiatives, including the Making Project, which produces handcrafted items from recycled materials and offers space for creative activities (Church Action on Poverty, 2017).

Motivated by a commitment to social benefit, the researcher volunteered to establish “The Solace: Jewelry Making Workshop.” The workshop teaches handmade jewelry skills using reclaimed materials, particularly crown caps—common waste generated partly from alcohol consumption. According to the World Health Organization (WHO, 2024), 43% of the global population are heavy drinkers (Seekhantod et al., 2024).

According to the World Health Organization (2024), global beverage consumption and the resulting waste generation remain at high levels worldwide. With global soft drink consumption exceeding 500 billion liters annually, beverage packaging constitutes a substantial component of solid waste streams. Even if only a small proportion of these beverages is packaged in glass bottles, the cumulative volume of associated crown caps represents a considerable source of metal waste. In response to this issue, this study proposes the reuse of discarded crown caps as a sustainable material resource. By transforming these caps into value-added products, the research aims to contribute to environmentally responsible design practices and promote waste reduction through creative reuse.

Crown caps are made of steel and feature unique beverage brand logos on their tops (Crown Seal Public Company Limited, n.d.). Discarded crown caps were reshaped into jewelry components for participants to create their own pieces during the workshop.

After the workshop, the researcher collected the participants’ work for display and sale at a charity pop-up exhibition. The proceeds were donated to TimeBuilders, a local charity in Sheffield, to support future workshops.

This project represents a significant achievement, having received recognition

in the Innovation Award competition at Sheffield Hallam University, where the research was initially developed. As a Thai student who had the valuable opportunity to organize and implement this project in the United Kingdom, I am honored to have contributed to a social enterprise initiative. The experience gained through this work provides a strong foundation for future adaptation and development, with the aim of generating broader social benefits in Thailand and other international contexts.

The aims of research

1. To enhance the value of the waste, which are crown caps, by transforming them to be the components of jewelry
2. To conduct the jewelry handmade workshop for empower participants who are in disadvantage groups and develop their skills and experience that would enable them to be part of social community.
3. The jewelry handmade workshop is created to be a sustainable activity that it can be a case study to adapt with other countries in the future.

Sustainable Material

Nowadays, Jewelry is not always made from precious materials. According to Manheim (2009), “the preoccupation could in itself be construed as a way of recycling, where old ideas are revisited and reinterpreted with the knowledge of hindsight. Currently, there is a thriving trade in the resale of 20th-century jewelry, jewelry can be not big auction houses, antiques makers and fairs. Buying second – hand, already-existing jewelry, whether it is antique or relatively contemporary, represents another form of recycling. It seems that an examination of jewelry, or indeed, any other subject from the point of view of sustainability immediately opens up a debate which raises more questions than it answers.”

A part of jewelry designers has started to create their works from recycled things. As Maria said “The rich history of jewellery, encompassing its material worth, social importance, and perceptions of value, served as an effective tool for sparking a discussion on emphasizing the worth of discarded materials and giving them a new life” (Hanson, 2013). Izabela Nowak’s artistic eye and creativity illustrate us that there is beautiful even in the goods people so easily throw out (Blay, 2015).

What are the crown caps?

The crown cap is the top of the bottle. It is generally fully decorated with the design of the brand and logo of the beverage. People have to open it before drinking. Metal caps with plastic liners are used for the glass bottle and are typically made of steel (Crown Seal Public Company Limited, n.d.). Indeed, the quality of crown cap’s steel are very strong but their thickness is quite thin. So, it is more flexible than other kinds of steel. Researcher have therefore started to collect discarded bottle caps from restaurants.

Social enterprise

Social enterprise is the potent concept for business in community and volunteer organizations (Doherty et al, 2009). Part of their profits (more than 50%) will be given, reinvested or donated to the social projects. They are also building the working opportunities and chances for people, changing the society they work in and producing sustainable evolution objectives in the real world. In England, social enterprises are growing and exceeding their mainstream Small and Medium Enterprise counterparts in most of the areas of businesses.

Sheffield Hallam University have cooperated to create Social Enterprise Social. The aim is to create involvement between community enterpriser and someone who is attending it, to exchange their ideas or to inspire in network.

According to Starky (2017), TimeBuilders is the local charity in St.Mary’s church Sheffield. The aim is to involve people who would like to be volunteers and allow them to use their skills, passions, knowledge or whatever they have for doing a meaningful project to make a difference to other’s lives. The charity provide warm welcoming spaces for everyone who is lonely and who do not have any meaningful things to do. The way to resolve the problem of people

who feel abandoned is not trying to find out what are their issues or what they lack. Instead, the positive part of the solution is how we can support and make participants feel a sense of self-worth through the creative projects from volunteers, who willing to help and work with the individuals. The majority of charity's participants are from disadvantaged social backgrounds. Most of them have experienced lonesomeness, deprivation, mental health issue and unemployment. In the present time, they have almost 500 members.

TimeBuilders is conducting all types of activities (CAP, 2017). But the main projects are nourishing, learning, making, growing and connecting. Making workshop is related to this research, which focus on up-cycled products for environmental and social (Tenuta et al, 2024). The volunteer also produce the materials and equipment for all participants. The aim of workshop is to re-use the waste things around us and transform materials into useful products in the way of a craftsman. By the way, during the workshop people can work together and share the tools, skills which can foster a feeling of companionship. Everyone is welcome to be a volunteer at TimeBuilders. People can design whatever they have, use their knowledge or skills to make a project for other people (CAP, 2017). The opportunities are flexible for organization. Volunteers can decide to be a part of the old project or create a new group to be a leader of a project (Barnett, 2017). This is not a full-time job, and then members can manage their own time to come along in the TimeBuilders whenever they can. In the methodologies step 2, the researcher explained more about the experience from working as a volunteer in TimeBuilders.

Methodologies

This study employed a Research and Development (R&D) approach. The R&D methodology was used to design, develop, implement, and evaluate a practical workshop model through iterative experimentation, field application, and participant feedback. The process involved material experimentation, collaboration with social enterprise initiatives, implementation of pilot workshops, and assessment of outcomes in order to refine the model for sustainability and future replication.

1. Made experiment with waste materials and prepare the components of jewelry for participants

This study began with collecting various types of bottle caps from restaurants, followed by experimentation with different jewelry-making techniques. Crown caps were selected due to their steel composition, which is durable yet malleable. Hammering was used to flatten the caps, and a dapping technique was applied to form semi-circular shapes. The pieces were then assembled using rivets to create beads.

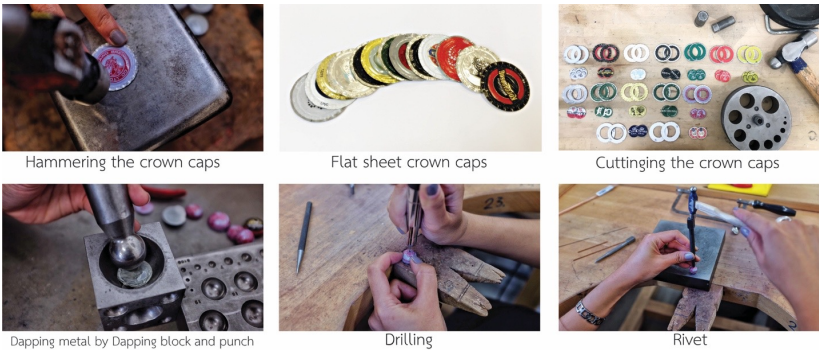
Figure 1

The bottle caps were collected from restaurants and made experiment by jewelry making techniques.



Figure 2

The processes of making beads by crown caps



The original patterns on the crown caps were preserved on the beads despite the reshaping process. Each bead was prepared and provided to participants in the handmade jewelry workshop by the researcher.

Figure 3

The beads by author provided for participants in handmade jewelry workshop



2. Apply Innovation Award

Social Enterprise Social is an initiative of the Sheffield Hallam University Student Union. The university administers the Innovation Award, which provides funding to students who successfully propose projects that benefit the community and reinvest profits for social impact. The award is divided into two categories: the Starting Up Award and the Growing Up Award. As a first-time applicant, the researcher applied for the Starting Up Award and was granted £500 to conduct the workshop.

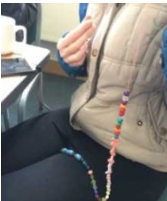
3. Cooperated with local charity in Sheffield, which called TimeBuilders

According to Church Action on Poverty (CAP, 2017), TimeBuilders runs several projects, including the Making Project known as the Solace Women's Group for jewelry and card making. This study was conducted within the Solace workshop. The group is led by Lydia, a TimeBuilders volunteer who has organized the sessions for some time and is familiar with the participants (CAP, 2017). The researcher's initial role was to assist her during the sessions.

Table 1

Observation working with TimeBuilders

Participant's works	Activities Explanation	Feedback
Week 1: 6 Feb 2017. 	1st, the researcher worked as an assistant teacher for the Solace Women's Jewelry and Card Making Group, supporting participants by cutting paper, locating materials, offering suggestions for decoration, and preparing coffee or tea.	Participants enjoyed interacting with one another, and compliments helped increase their confidence and engagement. Some participants were happy to be photographed, while others declined, highlighting the sensitivity of this issue. When asked why they chose card making over jewelry making, all eight participants responded that jewelry making seemed more difficult. Additionally, the workshop had only one instructor, limiting the level of individual support available.

Participant's works	Activities Explanation	Feedback
Week 2: 13 Feb 2017. Lydia, teacher at TimeBuilders. 	2nd, the researcher taught participants to make cards using readily available materials, marking the first teaching experience with the group.	The main instructor, Lydia, provided guidance throughout the workshop, including sharing participants' material preferences and encouraging the researcher to engage them through questions and conversation. She also emphasized that photographing participants is a sensitive matter and advised the researcher to obtain their permission before recording any information.
Week 3: 28 Feb 2017.  	3rd, the researcher had the opportunity to teach jewelry making using tools such as pliers and scissors, with colorful beads as materials. Three types of jewelry—earrings, bracelets, and necklaces—were created, and participants selected their preferred design to replicate. (animation principles)	This week demonstrated that all participants required teacher attention. Some were unable to work independently without guidance, while others confidently experimented with mixing and matching materials. Most participants preferred simple shapes, such as circular beads in various colors.

Participant's works	Activities Explanation	Feedback
Week 4: 6 March 2017. 	4th, The author had a second opportunity to teach handmade jewelry making to the participants, similar to Week 3.	This time, participants were able to complete their work independently, which greatly differed from the previous session. They were proud to present their creations, with some allowing the researcher to photograph them. Many participants immediately wore the jewelry they made, and the workshop was filled with smiles and positive interactions between participants and teachers.
Week 5: 13 March 2017. 	5th, the researcher returned to card-making and observed how long the participants remained focused on their work without engaging in other activities.	This week showed that participants focused on card making for the first 10 minutes, after which some became distracted by cutting paper, gathering more materials, or chatting. As a result, one student finished early and asked the researcher for help making a bracelet.
Special week; Pop-Up Workshop, International Women's Day, 16 March 2017 	The author prepared materials and equipment for the participants and conducted a short handmade jewelry workshop (15–20 minutes) with 5–6 participants per session. After one group finished, the next group attended the session.	The “Handmade Jewelry Workshop” for women ran from 10 a.m. to 2 p.m., attracting over 100 attendees. Approximately 50 participants joined the researcher's session. Participants enjoyed making jewelry, which they took home for themselves or their daughters. The researcher noted the smiles on their faces, reflecting the happiness of all participants.

In summary, the volunteer researcher learned to communicate effectively with individuals living with disabilities and mental health conditions. Providing high-quality equipment, beads, and stretchable cord, considering participants' preferred colors and shapes, and giving positive feedback were essential (Hatcher, n.d.), while avoiding interruptions prevented participants from feeling they had done something wrong.

4. Organized the first workshop by researcher

The workshop included 11 participants with mental health or physical disabilities from the local charity TimeBuilders, and five instructors, including the researcher.

Figure 4

The jewelry handmade workshop, 1st time, Garden room, St. Mary Sheffield, 28 April 2017.



Figure 5

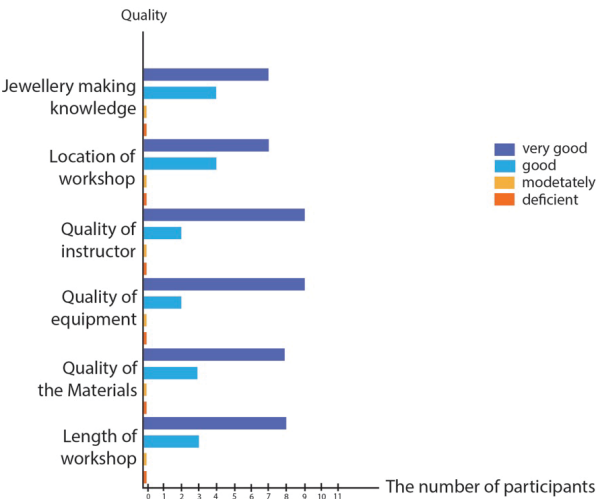
The participant's works from the jewelry handmade workshop, 1st time



After the first workshop, the researcher distributed questionnaires to all 11 participants.

Figure 6

The statistic information of participants' feedback created by author



During the second workshop, participants created jewelry using a manual leaflet prepared by the researcher. The researcher provided an introduction and demonstrated how to use the jewelry-making tools. The most effective teaching approach was to explain each step clearly, allow sufficient time for task completion, and remain patient (Hatcher, n.d.).

Figure 7

The jewelry handmade workshop, 2nd time, 11 July 2017



In this session, all participants demonstrated a high level of engagement and performance. Their understanding appeared to improve significantly through the use of the leaflet, which provided clearer guidance and structure. The overall quality of the work produced was very good. This may be attributed, in part, to the participants' awareness that their work would be collected for exhibition and sale at the fair, which likely enhanced their motivation and attention to detail.

Figure 8

The participant's works from the jewelry handmade workshop, 2nd time



After finished the workshop, researcher collected the participant's works and created display for their works and exhibited in The Great Upcycle Fete, St. Mary's church on 29th July 2017. During the event, three pairs of earrings created by participants and one pair designed by the researcher were sold, in addition to two chokers. The total income generated from these sales was £78. All proceeds were subsequently donated to TimeBuilders.

Figure 9

Exhibition Store of the participant's work and my jewelry design to sell in St. Mary's church, 29th July 2017



The research results

1. Enhancing the Value of Waste Crown Caps through Transformation into Jewelry Components

This study developed an innovative jewelry-making technique that transforms discarded metal crown caps into bead-like components through hammering and dapping metal processes. By reshaping and refining these materials, the research demonstrated that waste objects—often perceived as valueless—can be recontextualized as aesthetically meaningful design elements (Blay, 2015). The findings affirm the proposition that all materials possess intrinsic qualities that can be enhanced through creative intervention.

In the broader environmental context of increasing global beverage consumption and associated packaging waste, the accumulation of crown caps

represents a significant yet underexplored source of recyclable metal (Manheim, 2009, pp. 8-10). This project highlights the potential of design to respond to environmental challenges through upcycling practices that emphasize resource efficiency and creative reuse. The results confirm that used crown caps can be successfully transformed into jewelry pieces with renewed beauty, emotional resonance, and market value, thereby extending the lifecycle of discarded materials (Hanson, 2013).

2. Conducting Jewelry-Making Workshops to Empower Disadvantaged Participants

The developed jewelry-making process was implemented in a workshop setting involving individuals experiencing mental health conditions and various disabilities. The workshop provided participants with opportunities to acquire new technical skills, engage in creative expression, and contribute to tangible outcomes. Feedback indicated that participants enjoyed the process of creating jewelry and perceived the activity as meaningful and relevant to their lives. The act of transforming waste materials into wearable objects fostered a sense of pride, accomplishment, and social recognition among participants. Selected works were exhibited and sold at a local fair, generating a total income of £78. All proceeds were donated to TimeBuilders to support future workshops. This outcome demonstrates how design-led initiatives can generate not only creative outputs but also social and economic value (Doherty et al, 2009).

The findings support the view that designers have both the capacity and the responsibility to address human challenges at individual and societal levels through socially engaged practice (Roy, 2015). By involving surrounding communities in the workshop activities, the project contributed to building social connections and fostering inclusion through collaborative making.

3. Developing a Sustainable Workshop Model for Broader Adaptation

Beyond its immediate outcomes, the project aimed to establish a sustainable workshop model that could be replicated and adapted in different contexts. Following its implementation in the United Kingdom, the project was presented at the 6th International Conference of the College of Education, Art Education and Contemporary Challenges, at Sultan Qaboos University, Oman, on 8 October

2019. During this event, the bread-making process from crown caps was demonstrated to undergraduate students, and the experiences from the TimeBuilders workshop were shared as a case study of socially engaged design practice.

Figure 10

A Jewelry handmade workshop, Sultan Qaboos university, Oman, 8 Oct 2019



The Research and Development (R&D) methodology employed in this study enabled the systematic testing, refinement, and evaluation of the jewelry-making process as a prototype workshop model. The results suggest that the model is adaptable and has the potential to be implemented in other communities and international contexts. Overall, this research demonstrates that upcycling waste materials through participatory design workshops can generate sustainable environmental, social, economic, and emotional value. The project establishes a replicable framework through which handcrafted jewelry production can serve as a vehicle for empowerment, community building, and responsible material practice, with potential for continued development worldwide.

The researcher had the opportunity to be a special guest at Chulalongkorn University on January 23, 2020, to share experiences and passion for meaningful

handmade jewelry workshops with Bachelor students in the subject Jewelry Design and Entrepreneurship.

Figure 11

Guest lecturer of jewelry design at Chulalongkorn University



Conclusion

The findings of this study demonstrate that crown caps possess significant potential and inherent value to be reshaped into contemporary jewelry components. This finding is consistent with the aforementioned research. As Maria Hanson stated, “The rich history of jewellery, encompassing its material worth, social importance, and perceptions of value, served as an effective tool for sparking a discussion on emphasizing the worth of discarded materials and giving them a new life” (Hanson, 2013). Similarly, Izabela Nowak’s artistic vision demonstrates that beauty can be discovered even in objects that people readily discard (Blay, 2015). Through a Research and Development (R&D) approach, the study successfully designed, implemented, and evaluated a jewelry-handmade workshop using reclaimed materials. The workshop involved 11 participants

with mental health problems or physical disabilities, supported by 5 instructors, and was conducted in collaboration with a local social enterprise initiative. The results show that participants were able to independently produce jewelry pieces, exhibit their work, and in some cases sell the products or donate proceeds to support charitable activities. Questionnaire feedback and workshop observations indicated increased confidence, pride, and social participation. These outcomes suggest that the creative reuse of crown caps generates not only aesthetic value but also measurable social and psychological benefits.

Figure 12

Contemporary Jewelry with adjustable beads made from crown caps created by author.



These findings support the concept of social enterprise, which identifies business activities within community and volunteer organizations as powerful mechanisms for creating social value (Doherty et al, 2009). The workshop combined craft production with income generation and charitable contribution. This approach reflects a practical application of social enterprise principles in a community setting.

Furthermore, the case study aligns with the mission of TimeBuilders, a local charity based at St. Mary's Church in Sheffield (Starky, 2017). The organization encourages volunteers to use their skills and creativity to support disadvantaged individuals. It provides welcoming spaces for people experiencing loneliness,

unemployment, and mental health challenges. Rather than focusing on deficits, the charity emphasizes personal value and meaningful participation.

The outcomes of this research reflect these principles. Participants transformed discarded materials into valuable products, engaged in purposeful activity, and contributed to charitable causes. This demonstrates that the project was successfully implemented within the case study context and generated both creative and social impact.

This study addresses the identified research gap by demonstrating how a small-scale social enterprise model can integrate environmental sustainability with social inclusion. Rather than focusing solely on employment outcomes, the workshop model combined material experimentation, skill development, and community engagement. The partnership with a local charity and support from the Innovation Award suggest that social enterprises can operate as practical platforms for empowering disadvantaged groups while reducing waste.

The findings extend theoretical perspectives on social enterprise by showing that socially driven initiatives may generate value beyond economic return, particularly by fostering participation, confidence, and a sense of belonging among marginalized individuals. The transformation of discarded crown caps into value-added jewelry reflects principles of sustainable design and circular practice.

This interpretation is supported by Tenuita et al. (2024), who emphasize that workshop-based making processes contribute to both environmental and social value creation through up-cycled production. However, while the present study demonstrates promising outcomes, the scale remains limited and long-term social impact has yet to be systematically measured.

Future research should involve larger samples and longitudinal evaluation to assess sustained social inclusion and economic viability. Stronger integration with existing scholarship on disability inclusion, social enterprise development, and sustainable design would further enhance the theoretical contribution. The crown cap jewelry prototypes and process model show potential for replication in other communities, but their adaptability across cultural and economic contexts requires further examination.

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