

Design as a catalyst for social and environmental innovation

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Introduction

This project seeks to find practical solutions to environmental and social needs of selected remote communities. I believe tangible solutions can be found that help disadvantaged communities overcome social, environmental and economic needs through education and making. By identifying the opportunities within individual communities I have been able to produce three-dimensional solutions that help to overcome their needs.

Starting point

This project stemmed from a second year project that sparked my desire to design and make products that bring about social and environmental change to communities. The project, called the Wiki-waste workshop, focused on 'adding value' to waste materials which a community in South Africa were struggling to manage. I chose to work with post consumer Tetra Pak cartons, as they were a problematic material to dispose of environmentally. This resulted in me making a beach bag made from the cartons, block print fabric and included an instruction manual on how to make the bag.



Project Aims

Social and environmental innovation: Through collaborative making this project seeks to promote social and environmental change.

Education: Educating communities about the possibilities of working with waste materials is integral to my project. Through education and the learning of new skills communities are able to independently continue working with waste in the future.

Practical solutions: By designing three-dimensional products practical solutions are made possible to the communities that I work with. Products made from waste materials simultaneously combat waste problems and create new possibilities of earning an income through making.

Coordinate community workshops: Aiding and teaching community groups how to make products in a collaborative environment will allow workshop participants to learn new skills in a positive environment and give them the confidence to become autonomous makers.

Outputs

Contextual framework - An intervention framework that enables me to make informed decisions about the design outcomes that support specific communities.

Melkhoutfontein South Africa - A live project that sought to teach women from Melkhoutfontein new skills and gain confidence to become autonomous makers. I developed this live project further by making a bag and blanket from recycled Tetra Pak cartons, this illustrates to the community some of the possibilities when making from waste materials.

Kathmandu, Nepal - Furniture made from plywood and recycled food packaging illustrate that functional, robust and aesthetically pleasing items can be made from easily accessible and recycled materials. The Kathmandu project is a socially focused workshop proposal, where locals would learn new skills and become educated about utilising waste resources within furniture items.



Contextual framework

By designing a contextual framework I am able to identify and respond to the needs of specific communities. The framework's key points are - place, people, problems/needs, materials, project aims, education and product/output. It was important for me to analyse existing social enterprises to gain an understanding of how other designers and charities aid social prosperity through making.

Analysis existing enterprises and social innovation models

Bottle-up:

Through online research I discovered an initiative called Bottle-up, their aim being to tackle waste glass in Zanzibar - this project was a collaboration between Dutch designers and locals from Zanzibar. This type of social initiative that brings together design professionals and local makers is an innovative way to solve problems in specific communities.





The combination of problem solving through design and utilising waste materials is an output I aim to achieve in my own practice. This initiative brings together skilled makers from different backgrounds, however, in the contextual framework that I have developed I aim to work with non-skilled groups, enabling them to become makers and learn new skills.



Recycled glass products, helping tackle the huge glass waste problem facing Zanzibar

Local Women's Handicrafts

In November 2016 I visited Kathmandu, Nepal. Whilst there I conducted primary research by visiting two social enterprises. The first - 'Local Women's Handicraft PVT' (LWH) supports women from troubled backgrounds earn a fair wage by employing them to make hand-made textiles. This social enterprise trains women within their small factory supporting them to develop skills and confidence in becoming independent women.

The second was Nepal Communitere - a community makerspace set up after the earthquake in 2015.



From the visit I gained an understanding and insight into the way in which businesses are run in Nepal and also understood how unusual and difficult it is for women to obtain a basic wage. LWH has a factory and outlet in Kathmandu and also sells products online. It is evident that this enterprise is human centred with the well-being of its workers paramount. LWH supports and guides women into the workplace and through the training given within the factory aims to build confidence in the women, supporting them in gaining work elsewhere when they decide to move on.





LWH is a fantastic initiative and by properly training the women who work for them, they are also educating them simultaneously. This gives the women confidence and the ability to move on if they wish in the future. Although this program and business helps many women prosper I believe that my contextual framework will provide workshop participants the confidence and skills to work on projects and products independently in the future.

Nepal Communitere

The makerspace team encourage community workshops and supports social initiatives that work with disadvantaged community groups. Whilst visiting the space I enquired about running a project there in the future and the team were very keen for me to pursue this idea.

Nepal Communitere's approach to social intervention is not as direct as other social enterprises I have looked at. They facilitate and support, rather than lead and coordinate workshops or events. However, by having a community makerspace in Kathmandu, it enables social enterprises and charities to run workshops and events.





The images taken at Nepal Communitere show some of the workshop spaces that include: a robotics sections; traditional workshop equipment, for working with metal, wood and plastic; and a classroom training area. They are also rebuilding much of the main building, as it was damaged in the earthquake. This space is be developed and will also be used for community use.



Waste Aid UK

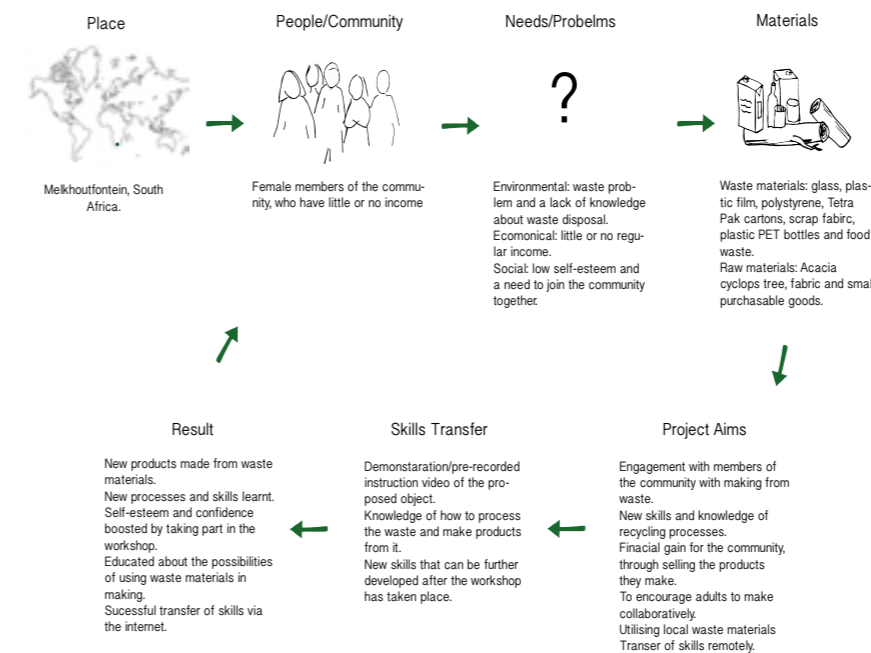
Wasteaid UK is a charitable organisation that provides waste management skills in developing countries. They have a broad spectrum of aims and this is achieved through a variation of approaches. Education and training are vital aspects to their work in developing countries, alongside partnership with local organisations within communities.

Wasteaid focus heavily on education about recycling and waste management, where infrastructure is often minimal. This approach to education in waste management and sustainability is worthwhile and successful. However, my aim with my intervention is to create a broader skills set for the workshop participants. By working with redundant and waste materials in a creative way I believe that communities could benefit more from making products from waste. The enjoyment of making collaboratively is something I believe to be extremely beneficial to communities that need a stronger sense of engagement and expression.



Development of contextual framework

Through analysing existing social enterprises I was able to consider the type of intervention I envisage achieving through my own contextual framework. The social enterprises, businesses and charities that I have analysed all have great approaches to solving social, environmental and economic problems. However, I believe that my framework enables me to achieve long-lasting positive solutions to environmental, social and economic needs through focusing on learning new skills, in turn boosting confidence and creative problem solving in collaboration with communities.



The two images show the design development of my contextual framework, the following page shows the final outcome, a visual document that is interesting and informative.

CONTEXTUAL FRAMEWORK

PLACE



PEOPLE / COMMUNITY



NEEDS / PROBLEMS



Environmental // Economical // Social

MATERIALS SKETCH OF MATERIALS

Waste materials // Natural materials // Sustainable materials

PROJECT AIMS

The project aims will respond to the environmental, economical and social needs of individual communities. By communicating with members of each community and listening to their needs I will be able to make informed decisions about the outputs they hope to produce.

EDUCATION / SKILLS

By educating the workshop participants in practical making skills the longevity of each project will be greater. It will enable them to progress into autonomous makers, where they can independently solve their future needs.

RESULT / PRODUCT

Three dimensional items are integral outcomes for each workshop, depending on what the needs of each group are the outcomes will vary. The process of making an item can boost self-esteem and bring prosperity to individual communities.

Contextual framework and summary

I believe this framework will enable me to clearly and concisely consider the needs of communities and by working with groups collaboratively the solutions that I create will have a long lasting positive effect on people in need.

The framework is applied to two projects - Melkhoutfontein, South Africa and Kathmandu, Nepal, the Melkhoutfontein project is a live project, where I connected with members of the community and the Kathmandu project is a proposal and aim for the future.

The framework itself is visually stimulating and by using symbols alongside the key words, this framework is transferable to different communities, cultures and languages.

Like most designed products this framework needed design development and I think that the final outcome is successful in illustrating my intentions and intervention strategy within communities.

CONTEXTUAL FRAMEWORK

PLACE



PEOPLE / COMMUNITY



NEEDS / PROBLEMS

Environmental // Economical // Social



MATERIALS

Waste materials // Natural materials // Sustainable materials



PROJECT AIMS



EDUCATION / SKILLS



OUTPUT / PRODUCT



3:

Melkhoutfontein, South Africa



This project developed from my second year project - the Wiki-waste workshop. I wanted to develop this project further and run a workshop with members of the community in Melkhoutfontein. Additionally, I wanted to develop my work with recycled Tetra Pak cartons, as they are currently not recycled in the community of Melkhoutfontein.

My contact with this community was facilitated by Anthea Rossouw, founder of Dreamcatcher. The design of my contextual framework enabled me to make informed decisions about the type of product and output I could design.

Initial research

My material investigation and experimentation with Tetra Pak cartons was an important part of this project, as I wanted to create interesting and unique products from the cartons alongside solving a purpose from a problematic waste stream.

I contacted Tetra Pak UK to discuss using recycled Tetra Paks from a recycling plant in the UK. Unfortunately they were unable to supply me with any of the recycled material due to health and safety regulations. During this time I researched different Tetra Pak recycling plants around the world, to investigate what products and materials they were making with recycled the cartons.

I discovered that there are only a handful of recycling facilities around the globe that recycle both the paper layers and the foil/polymer composite. The paper is often used to make hard wearing cardboard and the foil/polymer composite is made into large scale sheet material - frequently used to make corrugated sheeting for housing and outdoor furniture.



Tetra Pak - the carton is made from 74% paper - 22% polyethylene - 4% aluminium.

Much of the paper is recycled across Europe, however, the polymer/aluminium composite is usually sent to energy recovery incinerators. This is a waste of valuable materials that have useful properties. The polymer/foil composite when heat pressed together becomes extremely durable with heat and sound insulating properties.

The images show some of the possibilities of the sheet materials made from the composite.

It was important for me to test and investigate the materiality of the Tetra Pak cartons in the same way as an industrial recycling plant. This material research was presented at the beginning of the year as part of my propositions exhibition.

This image shows the Tetra Paks soaking in water, ready to be shredded using a food blender.

Unfortunately my domestic method of shredding the cartons was less successful than I had hoped. This meant I needed to explore other methods of separating the layers of the Tetra Pak.



Separated and processed cartons - Recycled paper and recycled foil/polymer composite. Below shows both shredded composite and sheets of the composite. I started to experiment by pulling the sheets apart and then scrubbing them to get the remaining paper fibres off. This method proved to be more successful.



Showing a simple separation process added narrative to the technical process - something I am interested in illustrating through much of my material based work.





This image shows two cups - one made from the polymer/foil composite and the other made from the paper fibres. I wanted to illustrate that both materials were capable of making 3D forms. However, both products required significant refining.

Development

Workshop coordination

As aforementioned, I wanted to coordinate a workshop with locals from Melkhoutfontein. Anthea Rossouw, founder of the Dreamcatcher Foundation facilitated the workshop. Under her guidance the group where able to follow my instruction video and make a recycled Tetra Pak woven mat.

The purpose of this workshop was to test the success of remote communication and education.

I needed to teach the women in South Africa some simple skills as they were unfamiliar with making products, especially working with waste materials.

Through their input it became apparent that they wanted to learn through easy to follow instructions, which they could develop in the future. This meant that I needed to record the process of me recycling the Tetra Pak and making an item from the foil/polymer sheets.

After consulting the community members and Anthea about the type of products that they could make I suggested that they make a woven mat from the composite material, which they could then apply to different applications and designs.

One of the key aims of the project was to boost self-esteem of the workshop participant through collaborative making and for them to feel confident in making a simple product from waste materials in the future.

Ethical considerations

Due to coordinating a workshop with community members from Melkhoutfontein it was necessary for me to gain approval from the University of Brighton ethics committee.

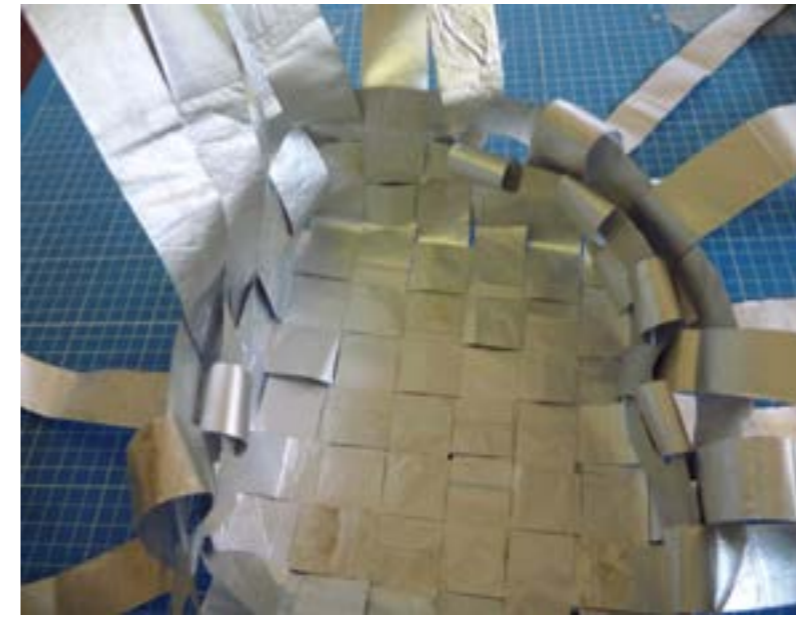
This included a tier two application, risk assessment, information for workshop participants, consent form, and a participant feedback form.

Ethics documents are in Appendix 1 - 4.





Product development



Outputs and critique

See appendix 2 for participant questionnaire - opposite page shows feedback from all workshop participants. They were asked a series of questions about their participation in the workshop so I could ascertain how successful the workshop was. The feedback suggests that the participants found the experience to be a positive one and a step in the right direction towards them becoming more independent and confident in regards to making with waste materials. I must add that Anthea Rossouw who acted as a 'gatekeeper' for this part of my research was integral to the success of the workshop, as she knows all four participants personally and led the workshop under my remote instruction in Melkhoutfontein, South Africa.

Participant 1 – The workshop session was educational for me and it was wonderful to know that someone from another country is willing to help us to try new skills. God bless you!

Participant 2 – Personal input: It was educational and I enjoyed it very much. It was so special to me that someone from another country is interested in our needs to develop and willing and interested enough to help us.

Participant 3 – I found it very educational and enjoyed it very much and I think we can learn a lot. Instructions are very important however. It is great and good that young people from another country care and are thinking about how we can help ourselves to a better life and that they are happy to get involved.

Participant 4 – I found it interesting and educational and an eye opener. I think we will need coaching and practically delivered instructions at the start to set us off though. Thank you.

We had a group meeting after the workshop. Input after group discussion additional to the structured questions:

“We had a group meeting afterwards and we all found the internet/Skype tutorial very interesting and useful. Group work is very nice. When we considered that we are aspiring to make quality crafts of high enough standard to impress people to buy them for their quality and use, we felt that a good way to ensure quality crafting, techniques and standards, so we can grow into really good crafters, is the following: 1) a Skype/web contact session to alert us and share the concepts and to demonstrate it with us to provide a practical view on what we are making. This is the orientation and outreach stage. 2) Then we earnestly would motivate that the trainer comes to train us in person on the ground until we have mastered the technique and can produce a quality piece under his or her guidance. 3). Then we set up Skype sessions to receive updates, discuss problems we have run into and to share ideas from him or her and also we can then share how we are thinking now of our own ideas on more products from the specific technique or recycled material we are using. This will set us up for a new life of hope. Thank you thank you!!”



Image source: Anthea Rossouw

The four women who participated in the workshop produced one woven mat between them and they enjoyed the process of making together. The process of de-constructing the Tetra Pak cartons was challenging for them, as it appeared that within the cartons there was an adhesive that made it harder to de-laminate the layers.

From this feedback I believe that more creative problem solving could overcome this problem. Due to time limitations I was not able to conduct another workshop with the women. It must be noted that the participants felt that a personal workshop would also benefit them greatly, giving them even more confidence and ability to make products, which could then be followed up by more Skype workshops.



Image source: Anthea Rossouw



As a further development of this project it was important for me to design and make a product that demonstrated a use of the de-lamination and weaving process. I utilised the Tetra Pak cartons and traditional South African fabric, called Shwe Shwe. The use of the Shwe Shwe fabric adds narrative and contextualises the item within its intended community.

The final product is shown on the opposite page - a blanket and bag, with the aim being for community members to make for themselves or to sell to tourists to supplement their income.

When analysing and critiquing this product the key limitation is that it takes many hours to make, which means making and selling this item a problem for community members. However, this design could be easily adapted to make the making process much quicker. I see this item and the workshop as a catalyst for education and change within the community.

I made an instruction video for the community to follow and another of the Skype workshop and instructions - the later illustrates the process of the project in an informative way. This is displayed in my degree show exhibition, to enable the public to get a quick understanding of the project.

Links to instruction video and project overview video.

https://www.youtube.com/watch?v=c_fm1kL2Kck&t=145s

<https://vimeo.com/218002118>



Images show close up detail of the blanket and bag photographed in context. By photographing it on a beach it becomes apparent of its intended purpose.



Kathmandu, Nepal

I visited Nepal in 2016 and noticed the vast quantity of plastic waste that was disposed of in the streets. This project focuses on social empowerment through making, whilst simultaneously educating workshop participants in utilising waste materials within products. Through educating community groups in making products from 'waste' I aim to challenge perceptions of waste materials. Currently, this project is a workshop proposal, working with women from low economic backgrounds, with a need for social and economic independence. Through education in waste materials and new skills in making, participants would create products within a community makerspace. The current output for this project is furniture made from plywood and recycled plastic that can be easily assembled and disassembled, enabling easy transportation to remote locations. The future aims being that participants will gain confidence in making that will progress towards making products independently.



Research



From personal experience of travelling to places in Nepal I became aware of the logistics of transporting anything bulky or awkward. Travelling within Kathmandu could also be challenging when trying to transport large items or furniture. This problem combined with lack of waste disposal infrastructure, knowledge about waste materials and making products, led me to develop the idea of running a workshop in the community makerspace - Nepal Communitere.

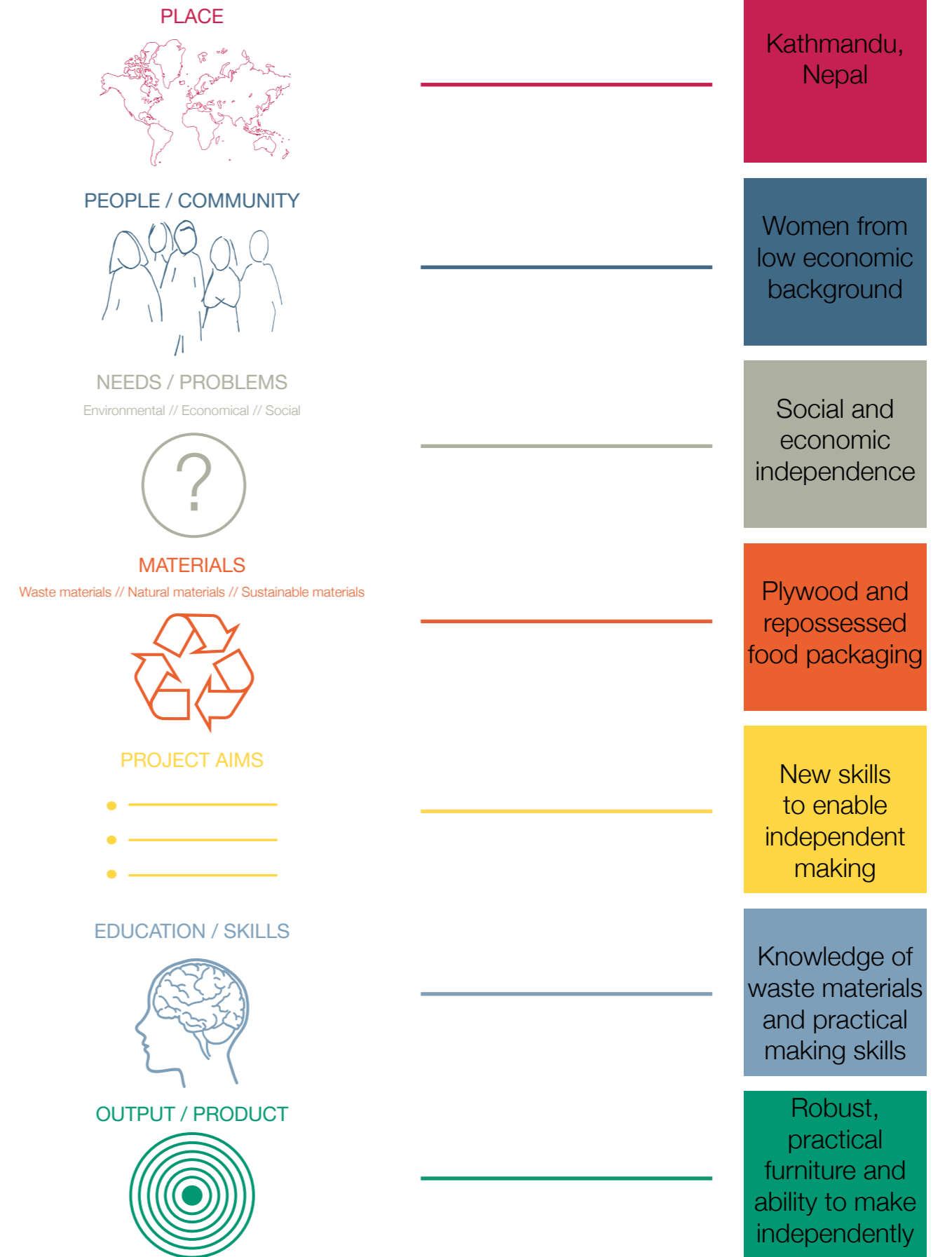




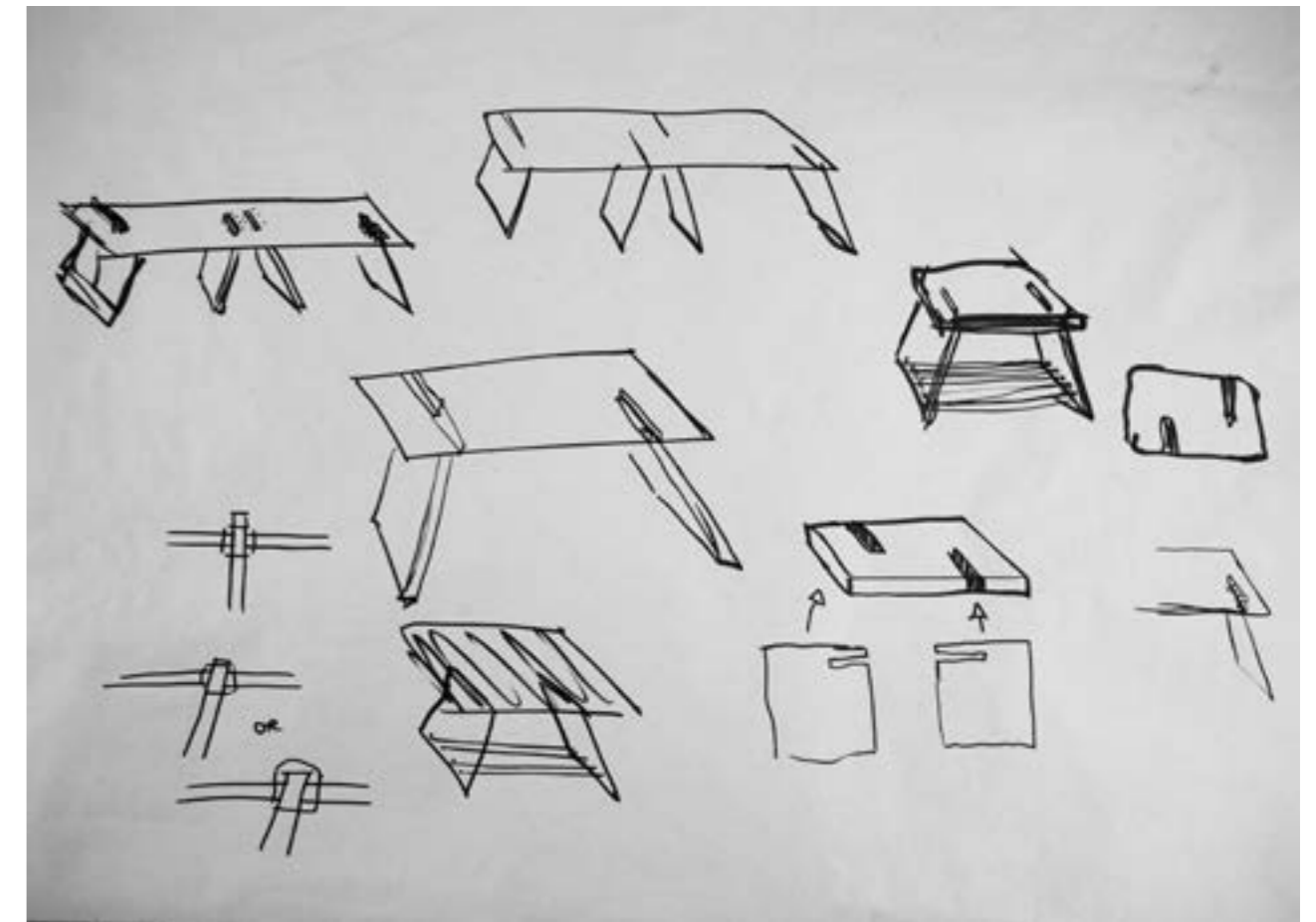
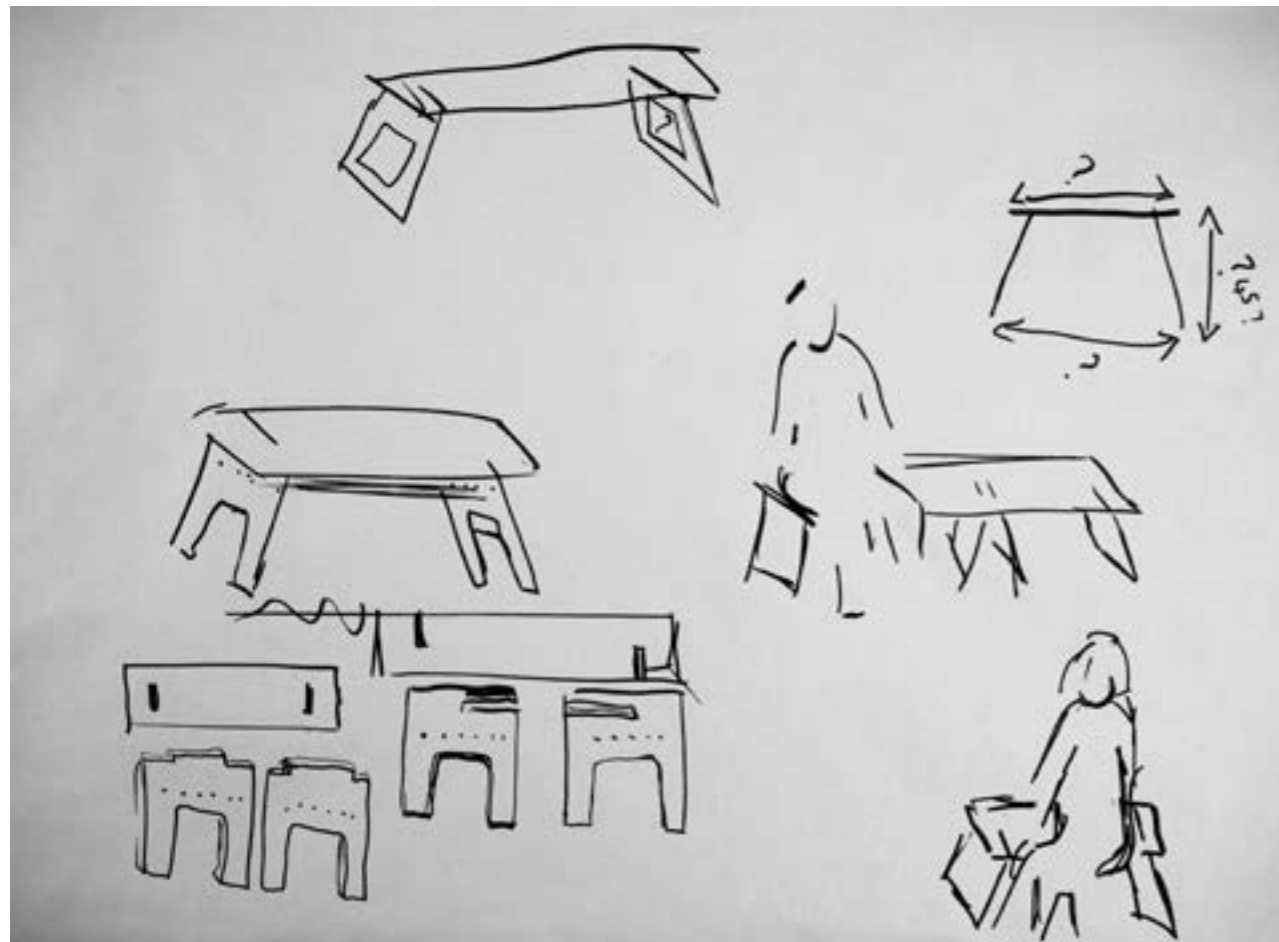
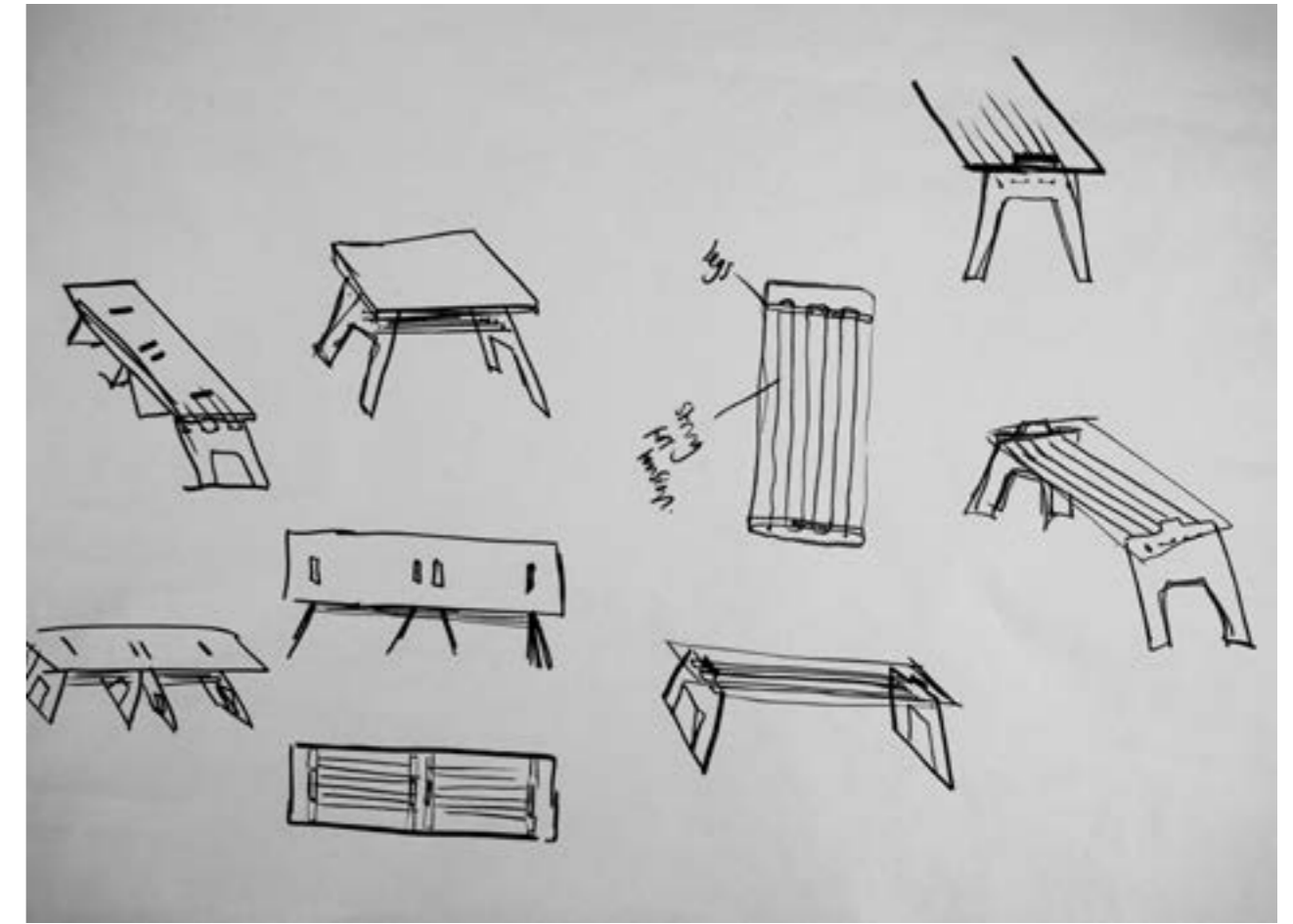
LWH is an oversubscribed social enterprise, when I visited the factory I was told that they have to turn women away as they do not have enough work for them. For many women there is a need and desire to learn and become financially independent. With help from the founders of LWH I aim to engage with women who have those needs.

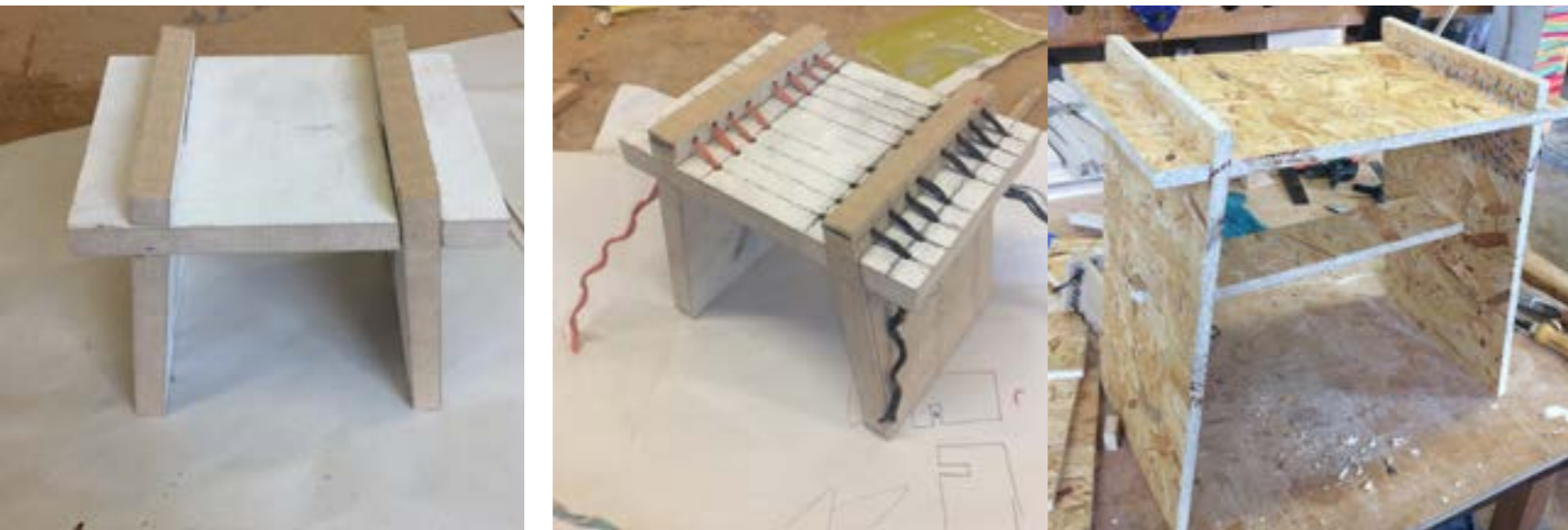
Opposite page - contextual framework applied to workshop proposal in Kathmandu, Nepal. The framework enables me to clearly identify the key points of this project proposal.

CONTEXTUAL FRAMEWORK



Development





Initial 3D models and tests - It was important for me to experiment with small scale models and full sized models. This allowed me to test the aesthetics and the functionality of the product and resolve any issues that arose. When I made the first full size model it became apparent that the holes for the recycled string were too far from the edge of the wood, which made it look out of proportion.

I decided that the final product would be made from plywood - it is a widely available material and inexpensive in comparison to solid hardwood. To bind to plywood together I wanted to utilise waste plastics, as it can be visually appealing and raise awareness of the possibilities of using 'waste'.

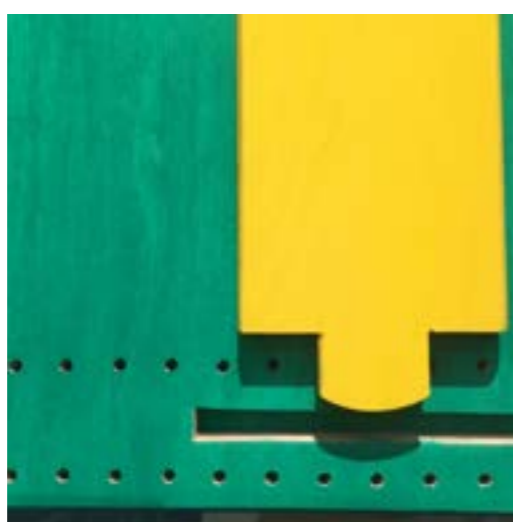
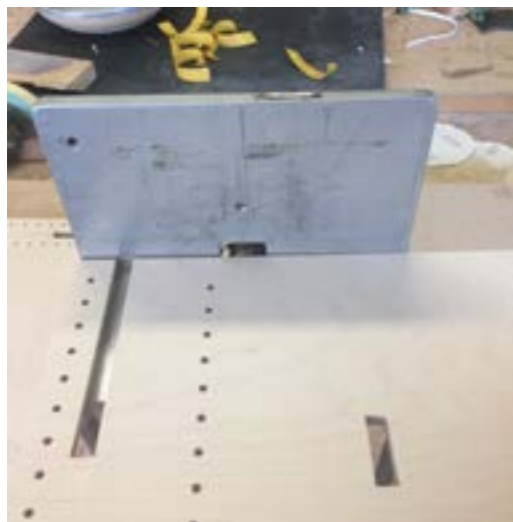




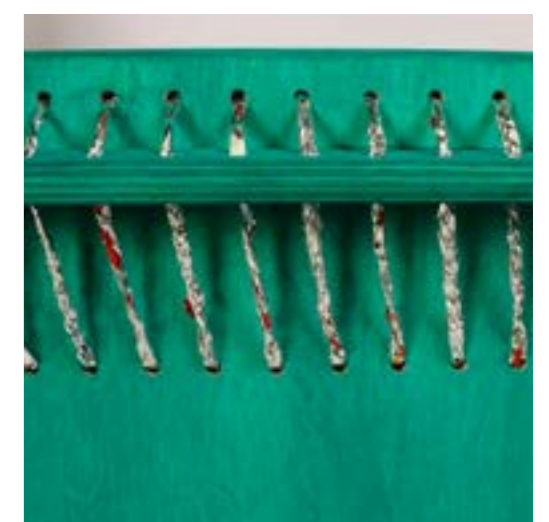
Colour samples - Nepal is a colourful and vibrant place and using colour was appropriate.
Recycled plastic sting - this initial test was too thick and rigid to fit through the holes in the plywood.



Plywood mock up - it was important to test the design in the intended material - to test strength and aesthetics of the plywood.



Routing tests - rounded edges gave the furniture a softer aesthetic.
Coloured plywood - I wanted to use the most vibrant colours from my sample board and decided on orange, yellow and green.



String tests - two tests, the plaited option was stronger and looked better so I decided to use that in my final pieces.

Output and critique

The two final products for the project are a stool and bench. Through combining plywood and reprocessed plastic food packaging I see these products as future outputs to a community workshop that I aim to run in Kathmandu. Currently the products answer the needs that I have identified, however, when this project comes into fruition I will need to work collaboratively with the workshop participants, which may mean the design changes due to other needs being identified.





It was important for me to show the assembly process of this furniture as it is so simple and easy to do. There are no metal fastening or glue used in this furniture, it is made solely from plywood and recycled plastic.

Link to video -

<https://vimeo.com/218350792>



Project Summary

Through the process of this project its key aims have been achieved. They included - social and environmental innovation, education, practical solutions to community needs and the coordination of community workshops.

The contextual framework has been integral in the design process, as it succinctly identifies key points of consideration when planning and carrying out community workshop.

The Melkhoutfontein workshop successfully engaged with community members, teaching new skills in recycling and making. The final products that I made illustrate the possibilities of making with waste materials and aim to meet the needs of the community.

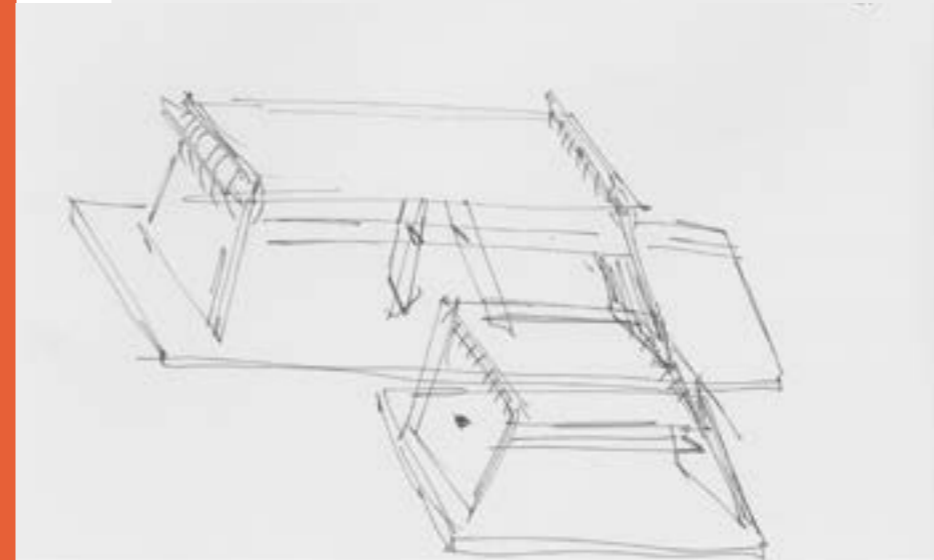
The Kathmandu project as a proposal is well considered and offers possible outputs for a future workshop. By using the contextual framework and personal knowledge of social enterprises that are established in Nepal I was able to produce three-dimensional outcomes that I believe would solve the needs of possible workshop participants.



To demonstrate all three elements of this year project I must display all three final outputs, the contextual framework, Tetra Pak bag and blanket and flat pack plywood furniture.

Sketches below show the three outputs. The following page shows exhibition display in progress.

Exhibition plan





Appendices

Appendix 1- Tier two ethics application

Images:

Websites:

<http://www.wallpaper.com/design/dutch-design-week-bottle-up-tackles-waste-through-glass-craft-in-Zanzibar#132633> (Accessed 20/11/2016)

<http://designbloggarna.se/bloggar/emmys-atervunna/bottle-up-upcycling-zanzibar/> and http://thefacedesign.com/Leisure/Sustainability/Bottleup_solves_Zanzibars_glasswaste_problem and (Accessed 21/11/2016)

<https://wasteaid.org.uk/vision/>

<https://www.google.co.uk/maps/place/Melkhoutfontein/@-34.3250717,21.4102945,2872m/data=!3m1!1e3!4m5!3m4!1s0x1dd6c056d8565e51:0x520993bd46c1c56b!8m2!3d-34.3250717!4d21.4190446>

Anthea Rossouw - Dreamcatcher, South Africa

<http://nepal.comunitere.org/>

Tier 2 College Research Ethics Committee (CREC) Application Form

Please note that review by a Tier 2 CREC is only required for proposals that present more than minimal ethical risk. For lower risk proposals, please complete the Tier 1 form and submit it to your School Research Ethics Panel. The Tier 1 form includes a checklist to help determine the level of review required. If it is unclear whether your proposal requires Tier 1 or Tier 2 review, please complete the Tier 1 form and checklist in the first instance. If your proposal has been referred up to the CREC by your Tier 1 School Research Ethics Panel, please attach a copy of the completed Tier 1 form to this application. Please do not include any other forms or documents with your application, other than those listed in the checklist in section 11.

Please adhere to the indicated word counts on this form. Any application that exceeds the word counts will not be considered by the CREC.

1 Applicant details

Project title	Communicate and Make
Proposed start and end date of project	15.03.2017 – 25.05.2017
Name of researcher	Matilda Grover
School	School of Design
Level (UG/Taught PG/PGR/Staff)	UG
Address	12 Buckhurst Close, Lewes, BN7 2ES
Phone	0796261565
Email (please use University email address)	m.grover1@uni.brighton.ac.uk
Funder (if applicable)	N/A

2 Student details

Course/Module/Unit name/number	3D Design and Craft
Name of supervisor/tutor	Nick Gant
Supervisor contact details	n.gant@brighton.ac.uk

3 Introduction (Maximum 500 words)

Please provide a brief background to the research, including context and rationale and the purpose of the research and aims of the study/hypothesis to be tested.

This project focuses on a community in South Africa called Melkhoutfontein that I have previous experience with. I took part in a project called 'Matters' / The Wiki-Waste-Workshop during my second year where we asked to add value to waste materials, which could later be made by members of the community, via remote instruction. This project is led by Nick Gant and Dr Ryan Woodard. My intention with this self directed project is to design between 2 and 3 products that are made from waste materials that can be made by selected members of the community. The rationale of this project is to test out my designs and to observe whether this method of communal working and learning activity by making products from waste materials (resources), could also develop into an income for people who are unemployed and utilising waste, which is problematic and a pollutant to the natural environment in this community.

The research aims are to:

1. Gain an understanding into whether making within a group can increase confidence and self-esteem.
2. Investigate whether remote instruction via video, Skype, or instructions on a leaflet can be successful in teaching people how to make a simple object.
3. Find practical solutions to waste materials that are problematic to recycle.

I will ask how participants felt before, during and after the workshop and if they now feel more confident about the possibility of making items since participating in the workshop.

I will be using Anthea Rossouw as a 'gatekeeper', she is the founder of the Dream Catcher Foundation in South Africa – more information below – Anthea is the founder of the Dreamcatcher Foundation, South Africa and has almost 30 years experience of working in the tourism sector. Focusing on empowering women and youth to take charge of their future by using local resources, culture, the environment and their heritage, to develop successful tourism micro-enterprises, Anthea pioneers innovative -and outcomes based solutions to stimulate local economic development.¹

The Dreamcatcher Foundation has been working holistically in communities locally in South Africa, yet building partnerships world wide, to remove barriers to economic -and skills empowerment and improved quality of life and we specifically focus on women, children and youth (although not exclusively), offering them a chance to develop to their full potential. We measure our impact and proud of our achievements. Working closely as a committed group with the people in communities, we get things done.²

For more information about Anthea Rossouw and the Dreamcatcher Foundation see Appendix 1 and

¹ Anthea Rossouw Biography. <http://www.dreamcatchersouthafrica.com/wp-content/uploads/2016/11/Dreamcatcher-Biography-Anthea-Rossouw.pdf> (Accessed 18.01.2017)

² "Home" <http://www.dreamcatchersouthafrica.com/> (Accessed 18.01.2017)

2.

4 Research approach and methods (Maximum 1,000 words)

Please outline the research approach and methods to be used including:

- How is the research to be conducted – what is the design?
- How, where and when will data be collected (please include copies of any questionnaires to be used, or sample interview questions)?
- What research methods (statistical or qualitative) will be used? Please demonstrate an understanding of procedures to be used and/or training undertaking in research methods.
- How will the results be analysed and by whom?
- How will the analysis achieve the purpose of the study?
- What facilities/resources will be required and who will provide them?

How is the research to be conducted – what is the design?

- Instructions will be given to the group along with a list of materials and tools they will need.
- Participants will be instructed/asked to make a particular item that I have designed. Participants will also be encouraged to develop the design with their own ideas.

How, where and when will data be collected (please include copies of any questionnaires to be used, or sample interview questions)?

- I aim to be connected via Skype whilst they take part in the workshop, allowing me to observe/analyse how participants behave/react to the making workshop.
- Participants will complete questionnaire after taking part in the workshop. The aim is to understand whether this type of learning and following of instructions is successful and if after making an item they feel more confident about making in the future.
- The Skype conversation/video will be recorded, allowing me to analyse the atmosphere of the group, allowing more in depth analysis of the workshop.

How will the results be analysed and by whom?

- Examining my own notes made during the video link.
- Through analysing the questionnaire feedback from the participants.
- Additionally, I will have email contact with Anthea Rossouw to ask whether she felt the group found the workshop beneficial/successful.
- Nick Gant and Dr Ryan Woodard will also have access to the feedback from the questionnaires and the video footage of the workshop.

How will the analysis achieve the purpose of the study?

- By gaining feedback from the participants I aim to discover whether this project has a possibly future and if this method of distance learning is successful.

What facilities/resources will be required and who will provide them?

- The Dreamcatcher home office in Melkhoutfontein will be used.
- Tools – scissors, scrubbing brush/metal scourer, drop spindle, knitting needles.
- Resources – used Tetra Pak cartons, water.
- In UK - Skype contact through ipad and apple TV (provided by project and University), Skype and computer and screen in South Africa (provided by Dreamcatcher)

5a Participants and recruitment: general information (Maximum 500 words)

What sort of participants (age range, ethnicity, number, gender) are to be recruited? Will any vulnerable groups of people or individuals be involved? Consider the concept of 'vulnerability' in its broadest sense.

What inclusion/exclusion criteria will be used? Is exclusion from the research likely to deny an individual access from services that would otherwise have been provided?

How will initial contact be made? Include details of gatekeepers and others who are to be approached? Please supply a copy of any means of advertising, such as posters, leaflets, emails, web pages or letters.

- Anthea Rossouw will be selecting a group of 3-6 people from the community of Melkhoutfontein, South Africa. The participants will be residents of Melkhoutfontein, South Africa, male or female and aged 18 and over. I will be relying on her judgement as an experienced aid worker to approach the potential participants with sensitivity and respect, this will be relayed to Anthea in setting up the project.
- As Anthea will be selecting the participants she will chose people that have the confidence to take part in the workshop, and have the physical ability to make simple products.
- Anthea Rossouw has been working with this particular community for over 15 years and personally knows most of the community, which should enable her to select the participants.
- During the workshop Anthea Rossouw will be responsible for the health and safety of the participants. Anthea has a great deal of experience within this community and frequently runs workshops and holds community meetings as part of the Dreamcatcher Foundation.

A copy of any relevant materials used to recruit participants should be attached to this application

5b Participants and recruitment: payments to participants (Maximum 500 words)

Will participants be reimbursed or paid for their expenses and/or time? If so, please provide details of any payments or vouchers to be offered, or other incentives such as being entered into a prize draw (you should ensure that any payment does not constitute an inappropriate inducement to take part).

- There will not be any financial reimbursement or payment to take part in the workshop.

6 Potential ethical issues including risks, benefits, outcomes and impacts of the research beyond participant recruitment and vulnerabilities (Minimum 200 words)

Referring to the Tier 1 checklist, please outline the key ethical issues in this research and discuss how potential issues are to be addressed and how any negative impact(s) will be minimised. Please ensure where relevant that you have completed a risk assessment form and (for students) it has been signed by your course leader, and attach it with this application.

Are there any expected benefits or positive impacts of the research on participants or their communities? Possible impacts might include psychological, health, social, economic or political changes or ramifications, either at the time the research is carried out or in the future.

Potential ethical issues	How ethical issues will be addressed
None	

7 Participant information and consent (Maximum 500 words)

Please outline how participants will be informed (both orally and in writing) about the research and their participation in the study. How will you ensure that information is provided in a format/language suitable for the target audience? Please describe how written consent will be obtained, or if you are working with participants who cannot give written consent, an explanation of the reason for seeking oral consent and details of the procedure to be adopted.

If consent is not being sought, or will not be sought until after data has been collected (e.g. if it involves covert observation), please say why consent will not be sought or why the delay is necessary, and what steps will be taken (if any) to debrief participants and obtain consent afterwards.

- Once the selection process has been carried out each participant will be given a consent form to fill out.
- Anthea Rossouw will translate the participant information form and the consent from English to the communities' spoken language, as she speaks both English and Afrikaans.
- They will have the option to withdraw from the workshop and research process at any time, however the information gathered up to that point can still be used.
- Photography and video footage will take place during the workshop, however no names of the participants will be known or published. Any photography of film footage that is published online, as part of my final exhibition in 2017 will have the Dreamcatcher foundation logo on the image.
- If participants want to contact me if they have any questions, but do not have access to a computer or have an email address, they will be able to contact me via email through Anthea Rossouw .
- Participants of the workshop will keep the product or prototype they make during the workshop.
- The participants will be able to request a copy of the video footage from the workshop for personal use or reference. If participants are unable to contact me personally via email, they

will be able to ask Anthea to request it for them

Copies of consent forms, participant information sheets and any other information for participants should be attached to this application

8 Confidentiality and data storage (Maximum 500 words)

Please describe measures that will be taken to ensure anonymity, privacy, confidentiality and data protection. This should include:

- How participants will be identified without breach of the data protection act and to guard against invasion of privacy (e.g. if you plan to access personal information to identify potential participants)?
- What steps will be taken to anonymise data (this may include removing identifying information in addition to names)
- How data (both physical and digital) will be collected, handled, transferred and stored
- Who will have access to the data other than the researcher (e.g. supervisors, transcribers etc.)
- How long data will be retained, and how it will eventually be destroyed
- Where the research data will be published (e.g. essay, dissertation, academic paper, exhibition, online) and who will have access to the results

- The participants will not be identified by name, if necessary they will be referred to as participant 1,2,3 etc. for my personal analysis.
- Anthea Rossouw will photograph the participant's work and send the images to me via email. The questionnaires that the participants fill out will also be emailed to me via Anthea Rossouw. Once I receive them I will store the photographs and the feedback from the questionnaires on my personal laptop that is password protected. When I have finished this project in the 25.05.2017 I will delete all the questionnaires.
- Myself, Anthea Rossouw and my personal tutors Nick Gant and Tom Ainsworth will have access to the data that is collected from the anonymous questionnaires.
- The images and information from the questionnaires may be used in my final exhibition in May/June 2017, online on my personal website and on the University of Brighton website. The photographs/videos from the workshop and any information I publish at my exhibition will be accessible by the public. Any images that are used as part of my exhibition or online will have the Dreamcatcher Foundation logo on them, as this is a policy that the Dreamcatcher foundation stipulates.
- Evidence of the event and data gathered might be used in research publications of the project leads.
- The participants' names will not be used or recorded during the recording of the workshop via Skype.

9 Other ethical issues

Please outline any other ethical issues that have not already been discussed in the sections above and describe how these will be addressed.

None

10 Supervisor sign-off (for student research only)

I confirm that I have checked the application and that the student has addressed the relevant ethical issues, has received training in ethics as part of their module or programme and has the necessary skills and experience to carry out the proposed research.

Supervisor: _____

Nick Gant

Date: 23/1/2017

11 Checklist for accompanying documents

Please ensure you have attached copies of any of the following documents where relevant, and please do not include any other forms with your application.

- Tier 1 form (where proposal has been referred up from School Research Ethics Panel)
- Information sheets
- Consent forms
- Advertising or recruitment materials
- Sample questionnaires or interview questions
- Risk assessment forms
- Letters of support from external organisations involved in the research
- List of references cited in the application

Please also note that the application must be complete and please ensure that it has been checked for accuracy, grammar and spelling.

Please return this form and all accompanying documentation to the Secretary of the College of x Research Ethics Committee (name and email address).

Appendix

1 – Anthea Rossouw - <http://www.dreamcatchersouthafrica.com/about-dreamcatcher/founder-anthea-rossouw>

2 – The Dreamcatcher Foundation - <http://www.dreamcatchersouthafrica.com/>

Questionnaire for participants from the making workshop

1 - Prior to taking part in this workshop have you ever made a small product?

YES/NO

2 - What words would you have used to describe your feelings before taking part in the workshop?

3 - Did you feel that making the product in the workshop was a positive or negative experience?

4 - How did you find following the filmed instructions?

5 - Do you feel that making within a group has been a positive experience?

6 - How do you feel about making another item in the future without instruction?

Less confident/ ~~as~~ confident/ More confident

7 - Do you believe that this workshop has changed your perception of using waste materials as a resource in the future?

YES/NO

8 - Would you be willing to take part in another similar workshop?

YES/NO

9 - Do you have any other comments or feedback surrounding your participation in this workshop?

1

Title of Study

Communicate and make workshop.

Invitation paragraph

I (Matilda Grover) would like to invite you to take part in a making workshop as part of my university research. I am a third year 3D Design and Craft student studying at the University of Brighton. I would like to involve members of your community (Melkhoufstein) in the workshop to gain an understanding into the possibilities of making products via remote instruction. Prior to giving your consent to participate in the research I ask that you read the following information regarding how the research will be conducted. Anthea Rossouw will be available to go through the information with you and answer any questions you may have. This will take approximately 30 minutes. If you have any further questions I am available via email to answer any other queries. After you have been introduced to the project you will be able to take this information away with you and consider if you would like to take part in the research.

What is the purpose of the study/project?

The intention of this project is to make a product that is made from waste materials. The rationale of this project is to test my designs and to observe whether remote making through instruction and communal making can be successful and a positive experience. The research aims are to:

1. Gain an understanding into whether making within a group can increase confidence and self-esteem.
2. Investigate whether remote instruction via video, or instructions on a leaflet can be successful in teaching people how to make a simple object.
3. Find practical solutions to waste materials that are problematic to recycle.

Anthea Rossouw will be leading the workshop in Melkhoufstein, and I (Matilda Grover) will be connected via Skype whilst the workshop is taking place.

Why have I been invited to participate?

There will be between 4 and 6 participants in the study/workshop. You have been selected to take part in the study because Anthea Rossouw is aware that you are willing and positive in taking part in this type of activity.

Do I have to take part?

Participation in this workshop is voluntary and you are able to withdraw from the activity/research at any time, without giving a reason.

What is expected from participants?

During the workshop you will be asked to follow instructions to make a three dimensional item from a waste material. I anticipate the workshop to take approximately 1.5 - 2 hours.

The workshop will take place in Melkhoutfontein, in the Dreamcatcher home office. This is a one off ~~workshop~~, however, I will introduce myself and the object you will be making prior to the actual workshop via Skype. You will also be asked to fill out a questionnaire to provide feedback about your experience of the workshop. During the workshop photographs and video footage will be recorded, however no names will be taken or recorded. The images of the items you make may be published online and in an exhibition as part of my degree show in Brighton, UK, any images that are published will include the Dreamcatcher Foundation logo.

Will I be paid for taking part?

There will not be any payment for taking part in the workshop. However, one of the aims of this research is to provide some basic skills that could be beneficial to you in the future, possibly supplementing personal income.

What are the potential disadvantages or risks of taking part?

Although the risks are very low when taking part in this workshop, I must note that there is the small potential to burn yourself when using an iron as part of the making process and the use of scissors also pose a small risk of cuts.

What are the potential benefits of taking part?

By taking part in the workshop hopefully you will gain some knowledge and insight into making small products from waste materials.

Will my taking part in the study/project be kept confidential?

During the workshop your name will not be taken/recorded. Photographs of the work you make and feedback from the questionnaires you fill out will be stored on my personal password protected laptop. Any images that are published on my personal website, on the University of Brighton website and at my degree show exhibition in May/June 2017 will have the ~~Dreamcatcher~~ Foundation logo on each image.

What will happen if I don't want to carry on with the study?

You are able to withdraw from taking part in the workshop at anytime, however, any photographs of the product you make or information from your anonymous feedback questionnaire may still be used as part of my project.

What will happen to the results of the project?

The feedback you give and photographs of your items will be displayed as part of my degree show and published online on my own personal website and on the University of Brighton website. Any photographs that are in displayed in my exhibition in May/June 2017 and on my personal website on the University of Brighton website will have the Dreamcatcher Logo on the image. I will be able to send you information of where you can see the project online at a later date
As a participant of the workshop you will keep the product or prototype you make during the workshop. You will also be able to request a copy of the video footage from the workshop for personal use or reference.

Who is organising and funding the research?

I will be organising the research project, assisted by Anthea ~~Rossouw~~ in Melkhoutfontein. No funding is required.

What if there is a problem?

If you have a problem or complaint about any of the research I will be contactable via email and Anthea ~~Rossouw~~ will also be able to answer any queries you may have. If you do not have access to a computer or have an email address, I am happy to answer any questions you might have through Anthea ~~Rossouw~~.

Contact details

My email address is m.grover1@uni.brighton.ac.uk, and if you have any problems or queries my University supervisor, Nick Gant, is available via email – N.A.Gant@brighton.ac.uk.

Who has reviewed the study?

This research project (workshop) has been reviewed and approved by the Ethics Committee of the University of Brighton.

Appendix - 1.4 - participant consent form

Participant Consent Form

Remote making workshop

Please initial or tick box

I agree to take part in this research that aims to identify if taking part in a making workshop within a group is positive and if being instructed to make something via a video is successful.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

The researcher has explained to my satisfaction the purpose, principles and procedures of the study and the possible risks involved.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I have read the information sheet and I understand the principles, procedures and possible risks involved.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I am aware that I will be required follow instructions to make a product and feedback to the researcher by means of a questionnaire.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I agree to the researcher taking photographs/making audio/video recordings during the project. Any images that are used in the public domain will have the Dreamcatcher logo on the image.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I understand that the data collected from questionnaires will be used and analysed by the researcher and may be published as part of an exhibition, on the researchers personal website and the University of Brighton website, however, the results from the questionnaire will not identify the participant

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I understand that I am free to withdraw from the study at any time without giving a reason and without incurring consequences from doing so.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

I agree that should I withdraw from the study, the data collected up to that point may be used by the researcher for the purposes described in the information sheet.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Name (please print)

Signed Date

Matilda Grover (include the contact details of researchers (and supervisors if the researcher is a student))

Appendix - 1.5 - risk assessment for workshop

Risk Assessment Form

Organisation University of Brighton, Matilda Grover	Assessment Date
Project name Communicate and Make	Review Date
People leading Anthea Rossouw	Assessor(s)
Ratio of researchers to participants [1: 6]	

Task or Activity	Hazards	Who may be affected	Controls Present	(A) Severity of Harm Insert no. 1-3	(B) Likelihood of Harm Insert no. 1-3	Risk Rating (A x B) Insert no. 1-9
To make a small product from recycled Tetra Pak cartons	Sharp instruments (cuts)	All participants and leader (Anthea Rossouw)	Participants will be told to take caution when using a sharp instrument.	1	1	1
As above	Iron (burns)	All participants and leader (Anthea Rossouw)	Iron to be used away from the main group on a suitable surface, one person at a time.	1	1	1
As above	Fire risk.	All participants and leader (Anthea Rossouw)	Community room will follow local fire regulation recommendations and participant and facilitator will follow local procedure	2	1	2
As above	Illness	All participants and leader (Anthea Rossouw)	The facilitator will ask if the participants have a known health issues before the	1	1	1

			session starts the activity.			

Full address of place of activity.....Melkhoutfontein, South Africa.....

Comments / Action Required Always allocate actions to a member of the research project team	Time Scale	Date Completed Please date and sign (or print name)

Signed.....Matilda Grover.... Date.....20.01.2017.....

Person doing assessment (researcher).....Matilda Grover.....

Signed..... Date.....

Course Leader (if researcher is a student).....

