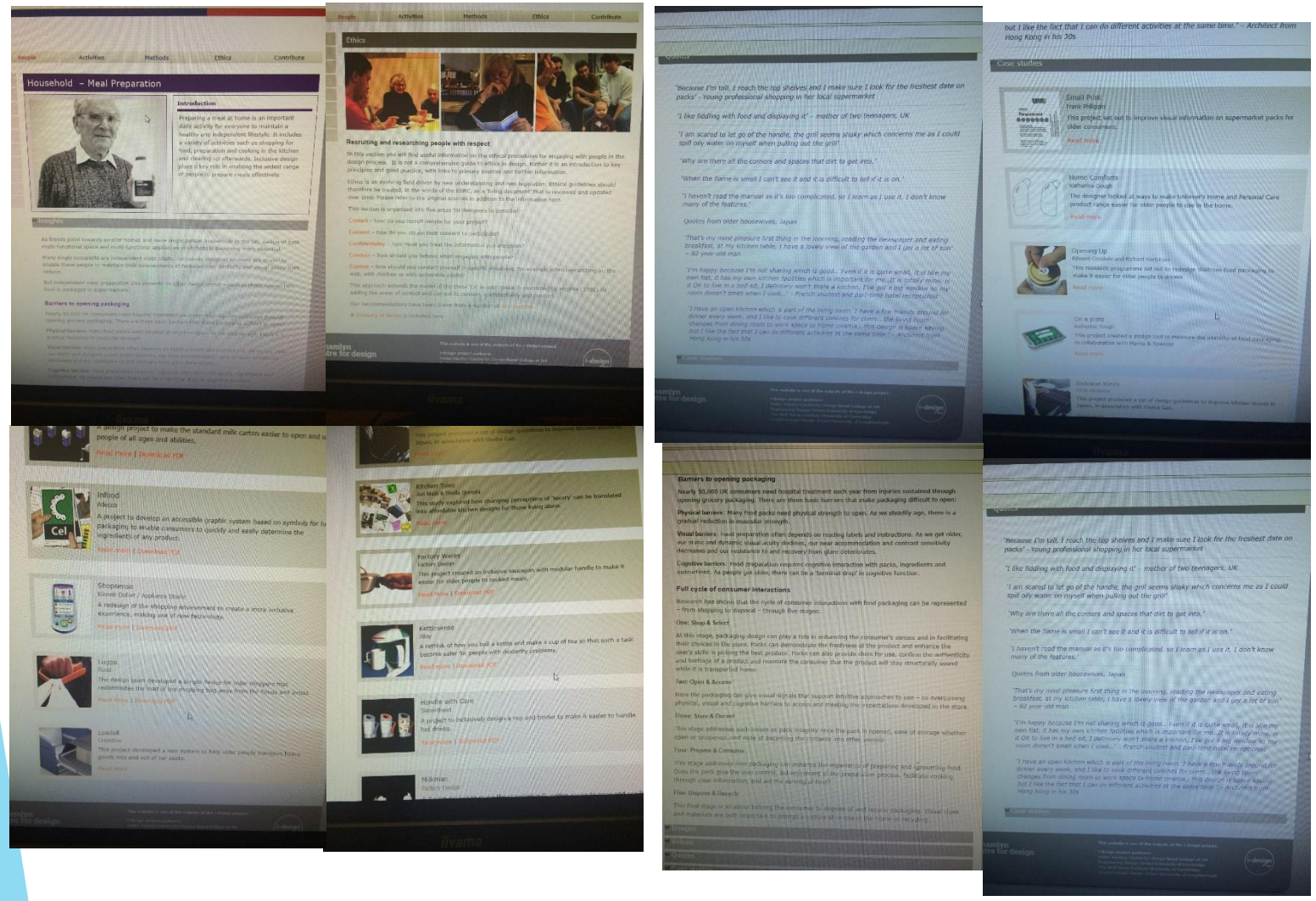
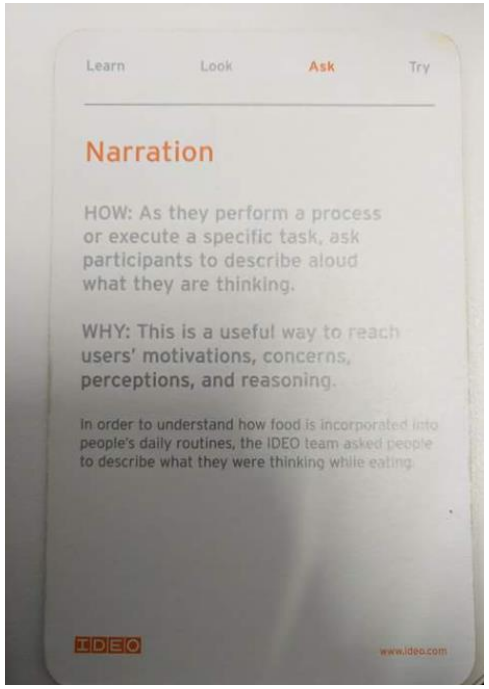
Food preparation

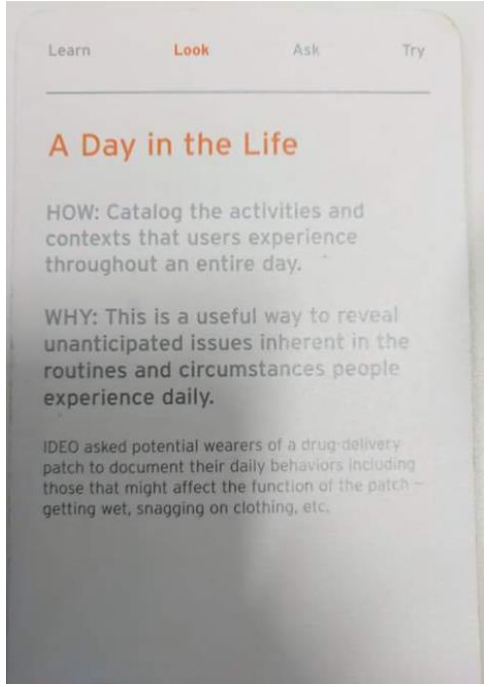
USER EXPERIENCE DESIGN

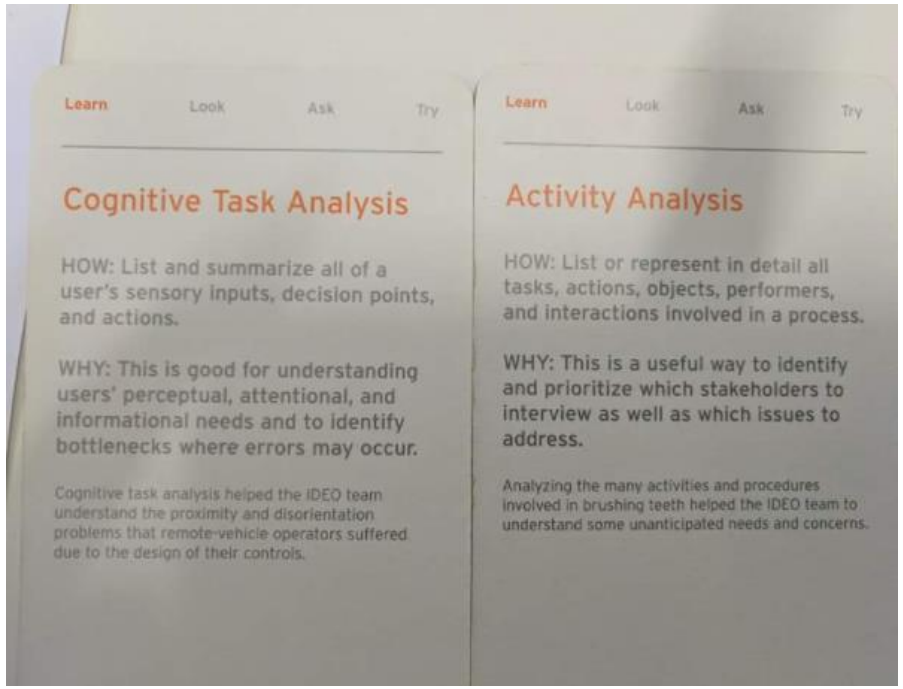
http://designingwithpeople.rca.ac.uk/

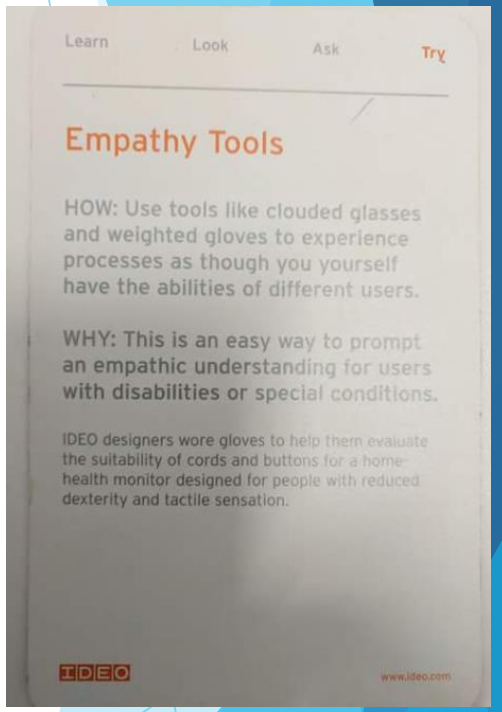


IDEO CARDS IN WHICH MY GROUP SELECTED AS THE MOST APPROPRIATE ELEMENTS OF RESEARCH TO UNDERTAKE IN USER EXPERIENCE DESIGN









- Margret
- Age: 72
- Gender female
- Occupation retirement
- Living conditions: arthritis, polymialgiarhematic, COPD, high blood pressure, cholesterol. Living with 1 other person and a dog.
- Activity analysis: Cooking a Meal for two people and preparing dogs meal to go on his dish with water from the tap.
- the task which was required to undertake was to go and purchase the food by being provided with transportation such a lift from someone else in a car to purchase the food and then get home, place food in cupboards and fridge. Then prepare the food and cook the meal. Pea and ham soup, ready cut up vegetables from Tesco
- Object utilised:
- Place bacon pieces into the saucepan, lentils, add vegetables cold water from the tap brought to the boil and then simmered until it was cooked with stirring occasionaly to prevent sticking to the bottom of the pan - approximate duration of preparation of meal with ingrediants ready and to cook and serve meal.
- Large saucepan
- Wooden spoon
- Ladle for dishing up
- In the case of preparing for a meal, she searches for the easiest options such as home made soup where she will purchase ready chopped vegetables such as onions, carrots, swede, leeks, etc in packets or tins. She can manage to peel and cut potatoes – just about.
- She purchases food once a week with occasional visits to the local shop by her son to purchase fresh food such as bread & milk.
- Anywhere she needs to travel to purchase food or travel in general, she depends on having a lift from one the family members in their cars.
- Now that her condition has been becoming worse, she now relies quite a lot on take away food to be delivered to her home as she is not as physically able as she was before when she was able to cook more often.
- Preparing a cup of tea: she uses a jug to pour the water into the kettle one cup at a time to prevent the kettle from becoming too heavy to lift when boiled. With special care, tilts the kettle to pour the water into the cup.
- Difficulty washing dishes: standing because of the pain and weakness in her legs and back. She takes extra special care when placing plates onto draining board because of her arthritis in the hands.
- Difficulty: she removes bread outside the toaster using tongs to prevent herself from risk of being burnt.

- PERSON 2: JOHN
- AGE 51
- GENDER: MALE
- OCCUPATION: WORKS IN AN OFFICE. REQUIRES LOTS OF WALKING AROUND, SORTING OUT PAPERWORK, HEAVY LIFTING AND UTILISATION OF BRAIN WHICH CAN BECOME OVER TIRING.
- Living Conditions: Lives with one other person
- Narration: 'One everyday issue: preparing meals is often too time consuming for me so I often obtain tendency to utilise the oven or microwave to heat ready prepared meals in which you can purchase off the shelves of your typical supermarket in order to be efficient on time. Some of these typically can be microwavable spaghetti bolagnase, pizza you place inside the oven, etc. The justification behind the whole notion of undertaking this method of meal preparation is because there is lack of time in my day to day life as I get out of bed between the time of 5:00am - 6:00am and organize myself for work, leave the house at around 7:00am, drive to work to be there be by 8:00am, finish at around 5;00pm and be home by approximately 6:00pm or later depending on the length of time required to search around a supermarket for a meal for tea when I come home and then need to rest and sleep ready for the morning. The same thing repeated every single day during weekdays.
- Activity Analysis: preparing ready prepared oven pizza:
- When I arrive home I begin preparing the meal by undertaking the following:
- Taking the product contents out of the carrier bag/s
- Unboxing the product's contents which is the pizza being placed out of the packaging which is a square cardboard box
- Unboxing the plastic wrap from the pizza in which enables the product to be maintained fresh and concealed inside and disposing the wrap inside the bin
- Placing pizza on a baking tray ready whilst preheating the oven on stated time in which instructions suggest on the product's graphic design packaging features.
- Once oven has been pre-heated, I place the pizza on baking tray into the oven and edit time and heating setting as stated on the packaging exterior, which usually tends to be approximately 20 minutes.
- When the oven timer has gone off to signify me that its cooked from the time given on packet, I then grab a tea towel ---- (not oven gloves because there are issues with this) open the oven door, utilise the tea towel by concealing hands with it on top to protect and prevent the chances of my skin from becoming burnt or being in pain although still enables risk of this as a tea towel isn't the best solution for heat protection.
- I then place fingers and hands with gentle care on the two side edges of the baking tray in tandem to also containing the hands wth the tea towel underneath the tray, in order to lift tray up and onto the work surface as quickly and effectively as possible which requires me to bend down, turn slightly and bend back up straight in order to place the hot tray with food onto the work top to avoid being burnt.
- I then utilise a knife with one hand's set tips of fingers in order to carefully lift the hot pizza up and off the boiling hot tray and then place very quickly and cautiously onto a plate in which I took out of the cupboard and previously placed onto work surface with no struggle.
- I then search inside draw rapidly for a pizza knife
- I then utilise this pizza knife to then cut the pizza into 4 quarters and then halve each of the four quarter slices into two separate slices.
- I then lift plate up, walk over to the dining room table, quickly have made a drink (cup of tea) and sat down to eat food before it gets cold.

- Person 3:
- Age: 20
- Gender: Female
- Occupation: Full time University Student & part time job in retail
- Living conditions: living with one other person
- Activity Analysis: Preparing a pot noodle
- Narration: 'Because I can barely cook and due to time restrictions and constant tiredness, I tend to prepare rapid meals/snacks throughout the day '
- Day in the life: I often have problems with time and hate the thought of spending a long length of time preparing a meal because I choose and have to consume my time undertaking other tasks in a day. I'm a very careless person when it comes down to food so long it tastes ok and fills inside the stomach I'm good to continue on with my day although I do try to eat more healthily whenever I can with more balanced diet with more appropriate contained nutrients to benefit my health. This is a massive concern to me although whilst being a student and working at the same time with other delays I often turn to the easier and most rapid options of meal choices in terms of the preparation duration. I am one out of many people who have the problem of struggle with time or energy to have the drive to bother preparing a full meal as too much time is spent on other things.
-
- Place kettle's plug inside socket mains in the wall of kitchen.
- Turn tap on in tandem to placing kettle underneath the tap in order to fill the kettle up with the appropriate amount of water. Stop the tap by turning it the opposite direction compared to before to halt the water from coming out once the appropriate amount has been filled inside by keeping close observation on the volume capacity measurement area of the kettle.
- Then I place kettle onto the electrical base section and use one finger to switch the device to enable it to boil.
- Whilst waiting for water inside the kettle to be boiled, I then open the lid of the pot noodle's packaging to access the contents inside where I follow the instructions by reading on the graphic design (printing) on the pot to carry forward the following task.
- I take sachet out and once water has boiled.
- I then lift kettle up with special care to prevent injury to skin from steam and/or boiling hot water to come into contact with skin, holding the handle appropriately and pour water out of kettle into the pot/packaging to the fill line as stated.
- I then place fork into noodles to stir whilst the boiling hot water separates the dry readymade source of food apart from each other.
- I then rip sachet sauce out and squeeze out into the pot/packaging and continue to stir until all mixed, noodles are soft and ready to eat with fork. Note: eat with special care of both steam and hot water contacting skin in tandem with waiting for food to cool down enough so that it isn't too hot to consume as mouth can be sensitive.
- I then rinse the pot out to then place into appropriate recycling bin bag for polymers.
-
- Note: about my analysis into how today's society influences how we prepare our food is that we are constantly working to the extent where our time is way too important to consume with fully cooking meals every single day in our lives so we often have tendency to find other solutions towards the problem such as preparing quick meals that are more rapid for us to prepare and eat to continue with our everyday lives.
- ONE HUGE PROBLEM THAT MOST PEOPLE STRUGGLE WITH IN OUR DAY TO DAY LIVES IS TIME, ENERGY TO PREPARE MEALS WHICH IS WHY WE OFTEN CHOOSE TO EITHER HAVE MORE RAPID SOLUTIONS OF PRAPARING A MEAL SUCH AS READYMADE MEALS FROM SUPERMARKETS TO PREPARE IN EITHER OVEN OR MICROWAVE, OR RELY ON TAKE AWAYS OR FAST FOOD RESTAURANTS. THERE ARE PROBLEMS WITH THIS SUCH AS IT CAN HAVE AN IMPACT ON OUR HEALTH ALTHOUGH THE GOVERNMENT WANTS US TO WORK MORE HOURS WHICH MEANS LESS TIME TO OURSELVES MEANING THAT TIME IS OFTEN MORE RESTRICTED. From my recent research, I have noticed that it tends to be larger families in which usually have more tendency to fully cook and prepare meals with ingredients unless theyre all too busy.
- One problem that all or most of the people in which I have interviewed all have in common is struggles with time to prepare food with their circumstances SUCH AS WORKING LONG HOURS PLUS IT WORKS OUT CHEAPER OR ROUGHLY THE SAME AMOUNT OF MONEY TO ORDER FOOD IN COMPARISION TO BE PURCHASING ALL THE INGRIDIANTS AND THE COST OF ENERGY BEING UTILISED, PEOPLE TAKE THE PERCEPTION OF THEIR TIME IS MORE IMPORTANT SO THEY TAKE THE EASIER AND MOST EFFIENCIENT OPTIONS.

- Person 4: Stewart
- Age: 43
- Gender: male
- Occupation: WORKS IN WAREHOUSE WHICH REQUIRES HEAVY LIFTING AND MOVING LARGE PRODUCTS AROUND
- Living Conditions: Lives with 1 other person and a dog
- Activity Analysis: ORDERS TAKEAWAYS SO PROBLEM HERE IS WITH TIME BECAUSE OF CIRCUMSTANCES OF WORKING LONG EXAUSTING HOURS
- Narration & A Day In The Life: ‘I often come home from work and I suffer from fatigue from long shifts at the warehouse that I work in. so the only option in which I have is to select easier choices of meals. So I either prepare a quick meal, purchase food from fast food takeaways on the way home from work with access to drive throughs’ in my car to save time and energy or I order a takeaway as soon as I arrive home.
-

- PERSON 5: Melanie
- Age: 48
- Gender: Female
- Occupation: full time student at university & full-time mum + dog owner
- Living Conditions: lives in a flat and has a 15-year-old son, a dog and a cat.
- Activity Analysis: preparing a meal for herself and her son
- A Day In The Life & Narration: ‘In order for myself and my son to be fed plus have us both prepared for school and university, I need to find the fastest methods towards a lot of everyday tasks such as ensuring that we are both ready on time to leave the flat, I iron my son’s clothes, shopping, meal preparation, etc. plus I need time to also to provide the dog with attention and ensure that he is fed and has enough water in his bowl. I also have to feed the cat. So in order to do everything all the time, when it comes down to meal preparation I ensure that our meals are quick, easy and simple to make but aren’t always too unhealthy. So I choose options such as cooked breakfasts, sausage and chips, beans on toast as I often am surrounded by supermarkets and local shops to purchase the ingredients on a daily basis if I am running low on anything to stock our fridge, freezer and cupboards up with.’ I need to always be quick with preparing meals for us all because we are constantly busy with a lot on our schedule. We have trouble finding time and my son is quite fussy when it comes down to meals which is another reason for why I keep it simple for us both.’

The questionnaire in which I carried out online in order to collect further data based on a wider range of audiences and markets that I couldn't find access to in person as I posted and shared it online.

QUESTIONS RESPONSES 6

Difficulties & Struggles with Meal Preparation

Difficulties & Struggles with Meal Preparation

What is your gender?

- Male
- Female
- Other
- Prefer not to say

QUESTIONS RESPONSES 6

What is age:

- 16 – 20
- 20-25
- 25-30
- 30-35
- 35-40
- 40-50
- 55-60
- 60 -70
- 70+

What country are you living?

Short answer text

QUESTIONS RESPONSES 6

Do you consider yourself to have any disabilities?

- Yes
- No

How often do you cook?

- Daily/Regulary: Once or Twice a day?
- Daily: Every meal
- Often a few times a week?
- Rarely
- None at all

Do you cook for other people?

- Yes
- No

QUESTIONS RESPONSES 6

If yes to the previous, How many?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- More

QUESTIONS RESPONSES 6

How often do you cook for other people?

- Once?
- Twice
- Constantly
- Often
- Sometimes
- Not often

Do you consider yourself to be a healthy eater?

- Yes
- No

QUESTIONS RESPONSES 6

On average approximately how much food in your household is ordered in comparison to cooking meals?

- 10%
- 20%-30%
- 50%
- 60%-75%
- 75%-80%
- 100%

QUESTIONS RESPONSES 6

How often do you eat out? e.g restaurants, takeaways, fast food,etc.

- Very often
- Often
- Regulary
- sometimes
- Rarely
- None at all, I eat all home cooked meals

Do you consider portioning food during meal preparation?

- Yes
- No

QUESTIONS RESPONSES 6

How much time do you approximately spend cooking in a day?

- Quick ready made meals that require minimum time to heat: e.g between 2-5 minutes/15-45 minutes
- 45-60 minutes
- 1 hour 30 minutes
- 2 hours
- 2 hours & 30 minutes
- Longer
- None

do you consider cooking healthy/balanced diet meals to be too time consuming on a regular basis instead home cooking meals?

- Yes
- No

QUESTIONS RESPONSES 6

Are you a busy person?

- Yes
- No

Do you have time to cook?

- Yes
- No

Do you often alternatively choose easier options of diet which are quick to prepare. These can include takeaways, restaurants, ready-made meals that are required to be re-heated such as microwavable meals, quick oven meals, etc?

- Yes
- No

On average how much food to you dispose of as waste/left overs?

Long answer text

QUESTIONS RESPONSES 6

On average how much food to you dispose of as waste/left overs?

Long answer text

If you answered the previous question, where does the wasted food go?

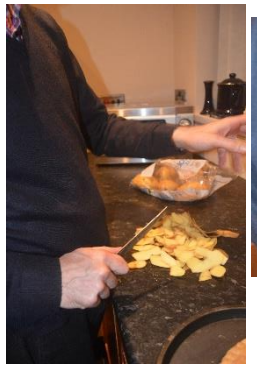
- For your pets to eat
- Kept for later
- Recycling
- Refuge
- Other

If other please state what this is?

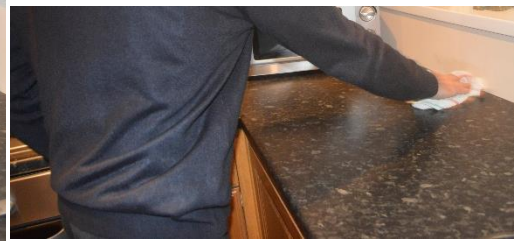
Long answer text

Click here for access to the survey link Statistics: https://docs.google.com/forms/d/1hi7kMKsEo3lmG3r4gHk_mYfjxiJAEmnlW8M9SpuFi3c/edit?no_redirect=true

User interaction photos of me identifying the co-existent problems associated with the user experience of meal preparation between each of the clients I interviewed.



HAND OVER STEAM CAN BE VERY HOT WHICH IS VERY DANGEROUS AND IS A HAZARD ESPECIALLY FOR MORE VUNRABLE PEOPLE LIKE ELDERLY OR FOR THE PEOPLE SUFFERING FROM….



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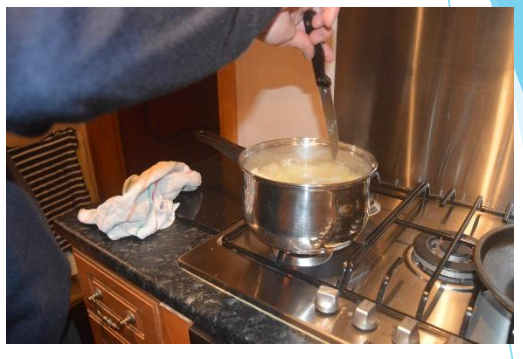

WASHING UP OF DISHES – TIME CONSUMING ALTHOUGH

DISPOSAL OF UNWANTED FOOD JUSTIFYS THAT WE WASTE TOO MUCH AND TO BE MORE SUSTAINABLE, THIS NEEDS TO BE PREVENTED BY LOWERING PORTION SIZES IN SOME METHODOLOGY.

Person 2:Margret

- Here is subject 2 ordering a Chinese takeaway for two people including herself and the person living with her, because of her disabilities which restrict and very often prevent her from cooking meals.

- Purchasing food at the front door and collecting off the delivery man.

- The takeaway said that they would take approximately 20 minutes, however the delivery man arrived at the home within 10 minutes that evening. This is both an effective and efficient method of purchasing and receiving a ready prepared meal for subject 2 because with the arthritis, it affects her really badly due to pains and restraints during meal preparation.

SUBJECT: JOHN - PREPARATION OF 2 PEOPLE AFTER COMING HOME FROM WORK

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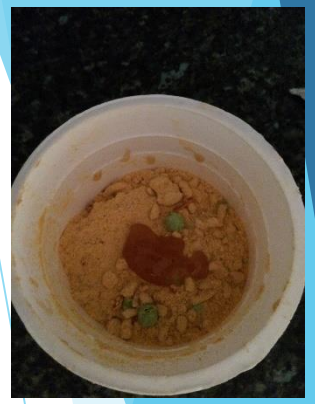
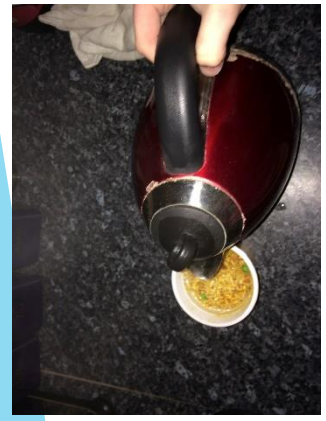
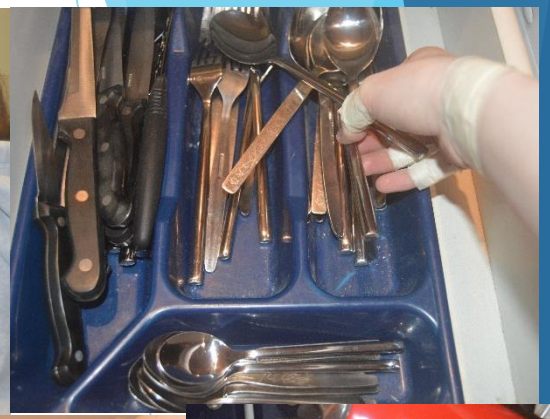
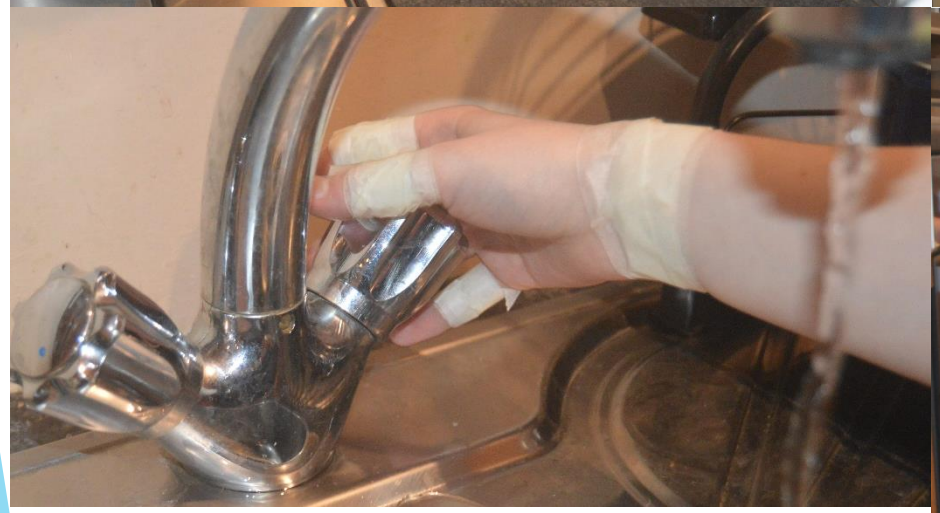
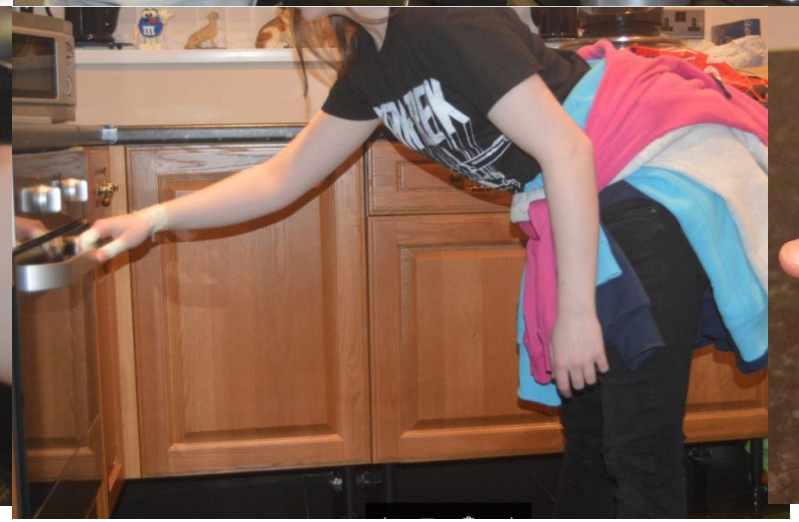
Myself Preparing a pot noodle



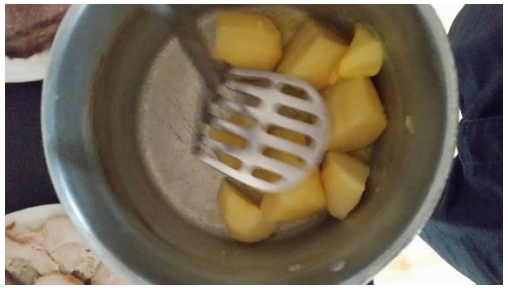


It only took approximately 3 minutes to prepare and then only a quick rinse under the tap with the packaging before it gets disposed into a bin.

EMPATHY MODELLING

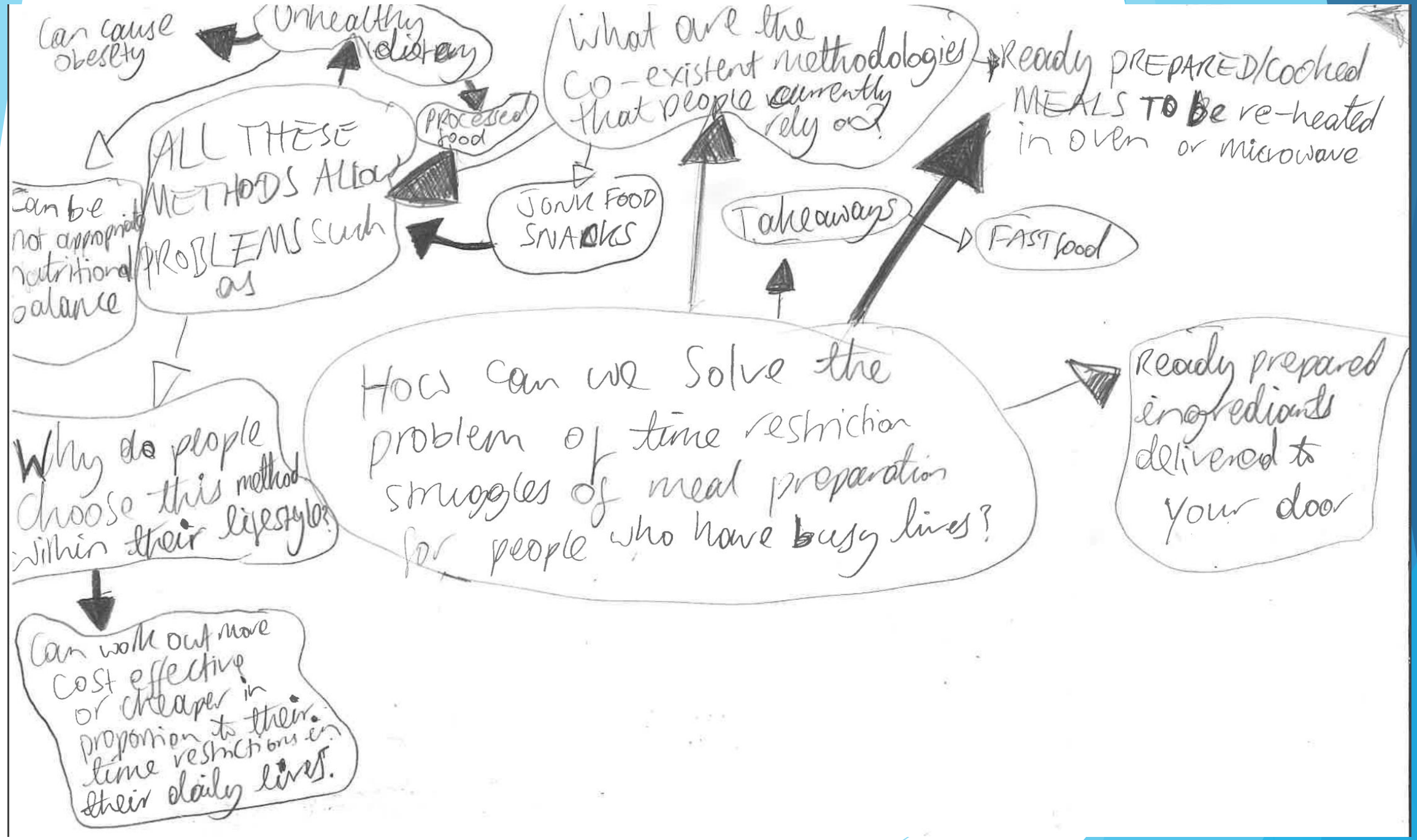
Here is another example of too much food being prepared and too much washing up and time being utilized in the kitchen. This is because this person was only cooking for two people yet had a lot of food wasted from left overs, had a massive heap of washing up to undertake after the process of cooking and eating the meals which are all problems associated in many people's everyday lives.



I WAS INVOLVED WITH THE PREPARATION OF THIS MEAL TO GAIN EMPATHY AND UNDERSTANDING OF THE HARD WORK, EFFORT, ENERGY AND LENGTH OF TIME REQUIRED TO PREPARE A MEAL LIKE THIS.

STATISTICS OF THE AMOUNT OF PEOPLE WHO LIVE EITHER ON THEIR OWN, WITH NO MORE THAN TWO PEOPLE, OBESTITY IN UK,

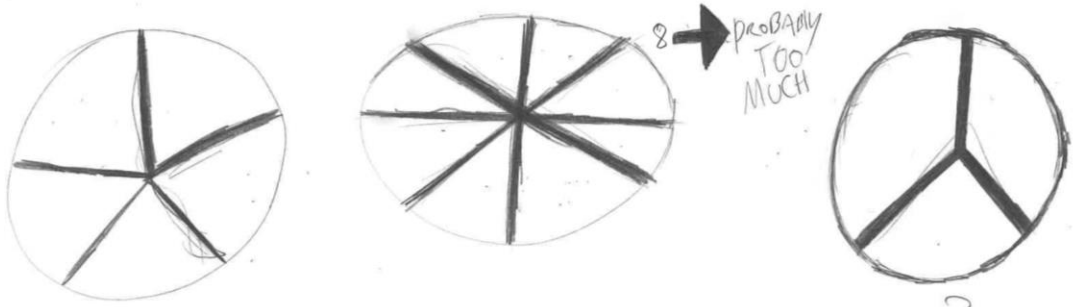
- REFERENCES:
- NOTE: LOOK UP THE LAST ‘WHAT BRITAIN BOUGHT IN 2017’ ON CHANNEL 4 TO REFERENCE THE PART IN WHICH STATED THAT WE AS A NATION ARE FINISHING WORK, GOING STRIGHT TO THE SUPERMARKET AND PURACHSING QUICK MEALS. BECAUSE THIS WILL JUSTIFY THAT ITS CURRENTLY A VERY POPULAR THING THAT WE ALL DO.


Can cause obesity
Unhealthy diet
What are the co-existent methodologies that people currently rely on?
Ready PREPARED/cooked MEALS TO Be re-heated in oven or microwave
ALL THESE METHODS ALLOW PROBLEMS such as
Processed food
JONK FOOD SNACKS
Can be not appropriate nutritional balance
Takeaways
FAST food
How can we Solve the problem of time restriction struggles of meal preparation for people who have busy lives?
Ready prepared ingredients delivered to your door
Why do people choose this method within their lifestyle?
Can work out more cost effective or cheaper in proportion to their time restrictions in their daily lives.

Conclusion with research:

- I have noticed that there are many occurring issues with food preparation and because there was a same ongoing problem that I learnt not only occurs to my self but also to a significant amount of people, I have decided that I will focus my design work based on the solutions around enabling efficiency in time with meal preparation, less waste in food due to unwanted left overs and efficiently in the cleaning up involved. I am also interested in potentially enabling my design to encourage people to eat more healthily because of the lack of care being taken due to my subject's main problems of either not being able to cook or need to prepare fast meals that take minutes and then serve due to living very busy lives.
- As one of my empathy tools, I can relate to some of my subject's problems because I live with a busy dad who works long hours and hasn't got the time and energy to cook meals that take long lengths time such as an hour, usually after purchasing the meal on his way home from work and arriving home. I understand the logic in purchasing a quick ready made meal and heating it in the oven for 15-20 minutes or preparing a few minute meals in the microwave. However it isn't always very healthy and by getting loads of pots and saucepans out to cook a Sunday dinner for example, takes too long.
- Therefore my proposition is to consider a methodology to solving this problem which will allow and encourage more people to prepare more healthier options to their diet. I am one of out of many people who live in an household of just two people including myself so because I have the experience of that, I can comprehend a feel of empathy of what it must be like for people who may be single parents, may live on their own, elderly, etc. this is because I associate myself with these type of people almost everyday and if not all the time so I not only see it but I experience it too. I also personally have a habit of preparing and eating 'junk food' snacks such as pot noodles, microwave meals, going to fast food restaurants, etc because I'm a student and clearly I am around other students so I see them doing the same thing whilst I am in university.
- I understand that subject

SEPARATING FOOD IN ONE PAN WHEN COOKING ON THE HOB WILL SOLVE THE PROBLEM OF BOTH [redacted] making too much so there WOULD be food left over + it will solve the issue of time [redacted] to clean up as there will be less washing up to do if only preparing one or two people



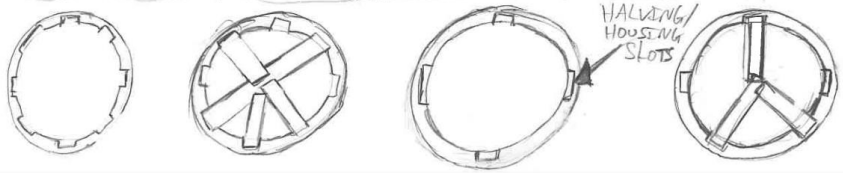
5 veg separator

3–5 would be a good amount of separators

3

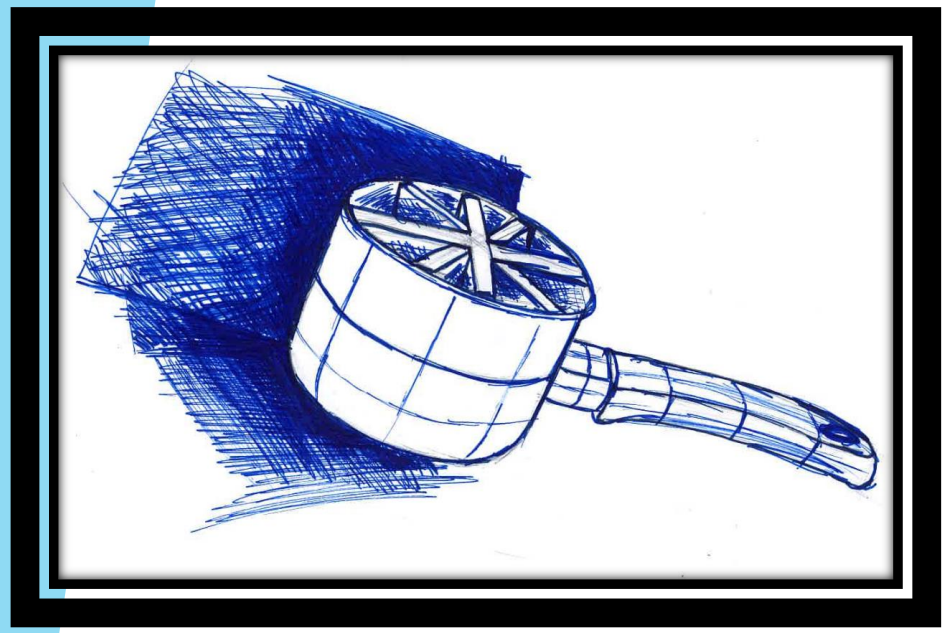
OR COULD I INCORPORATE A FUNCTIONALITY WHICH WOULD ENABLE THE USER TO INTERACT WITH THE PRODUCT SO THAT IT COULD ALLOW THEM TO CUSTOMISE THE AMOUNT OF DIVIDERS THAT SEPARATE THEIR INGREDIANTS INTO SECTIONS OF THE PAN WHEN [redacted] COOKING.

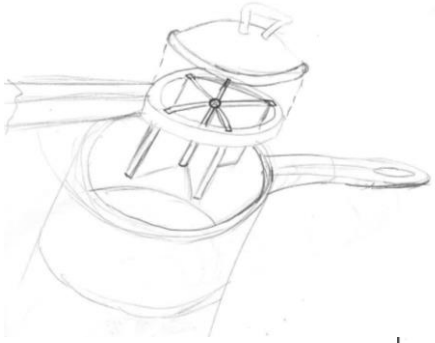
FOR EXAMPLE WE COULD HAVE SLOTS **ON THE INNER CIRCLE** THAT ENABLE DIVIDERS TO SLOT IN & OUT OF THE PRODUCT TO CHANGE TO THE APPROPRIATE AMOUNT OF SEPARATIONS REQUIRED TO COOK THE MEAL – **IN TANDEM WITH** THE SCALE/ AMOUNT NEEDED TO BE MADE DEPENDING ON HOW MANY PEOPLE + HOW MUCH THOSE PEOPLE EAT TO BE PREPARED FOR:

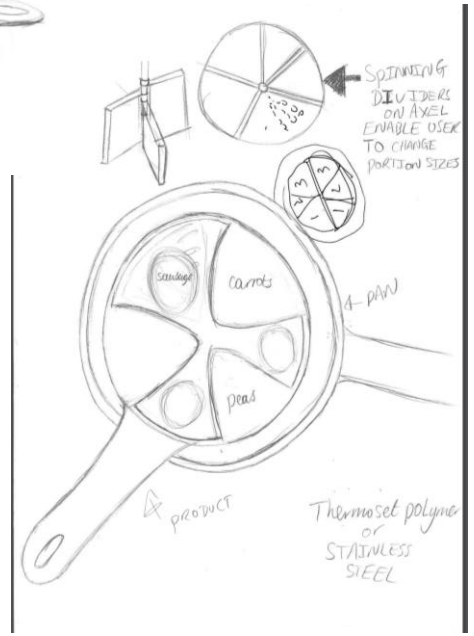


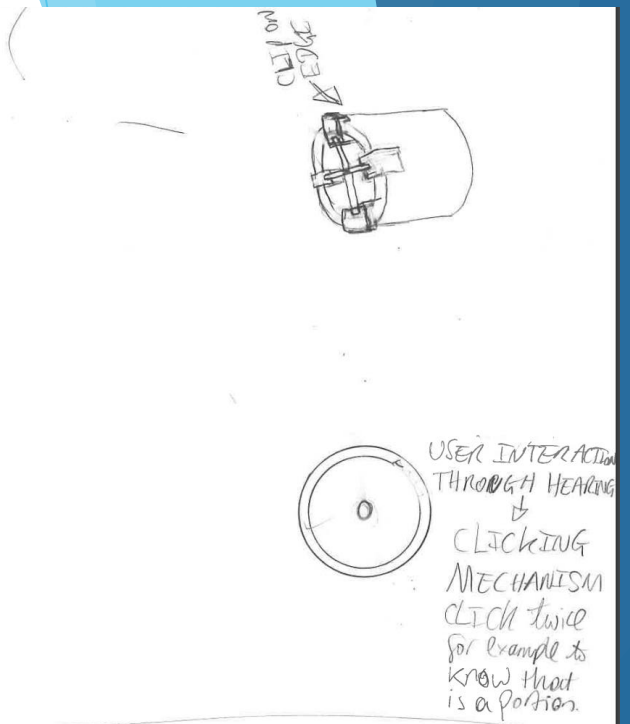
ONE IDEA OF CONSTRUCTION: CROSS HALVING JOINT SLOT

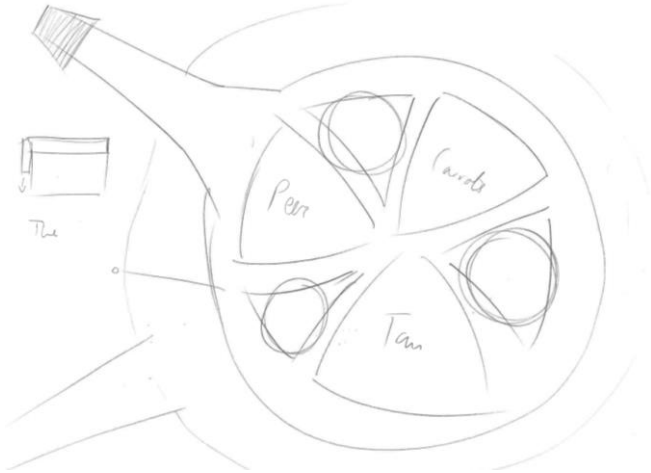
METHODS OF CUSTOMIZATION INCORPORATED WITH METHODS OF LAYOUT OF DIVIDERS

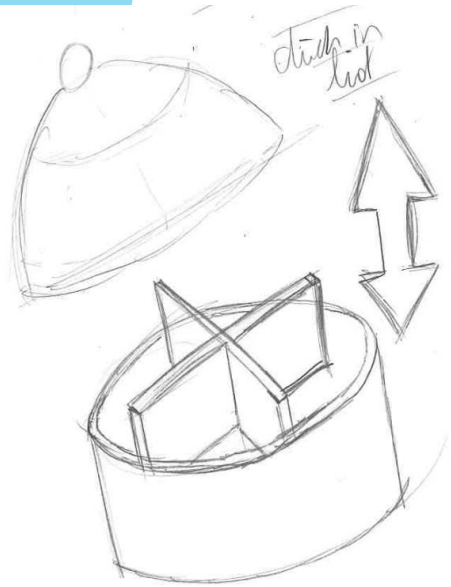


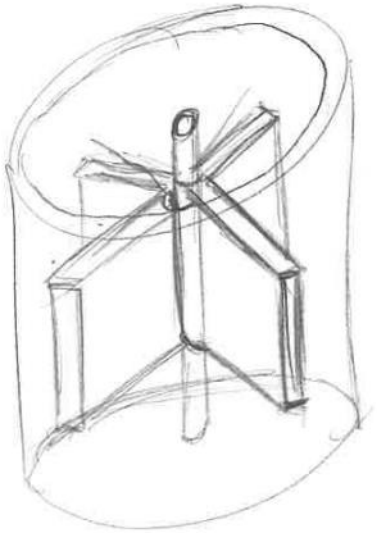


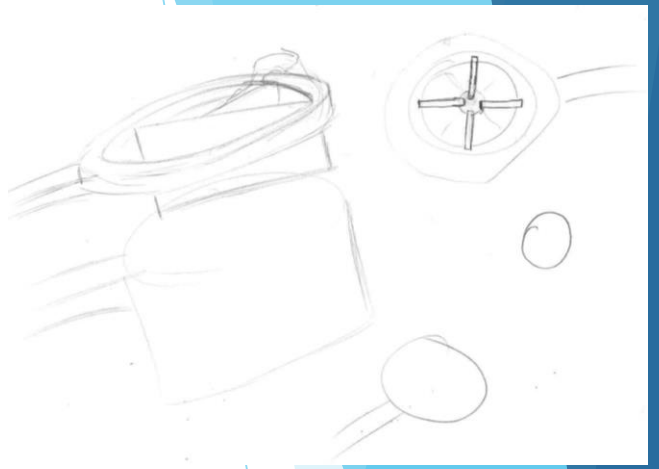

SPINNING DIVIDERS ON AXEL ENABLE USER TO CHANGE PORTION SIZES
sausage
carrots
peas
handle
product
Thermoset polymer or STAINLESS STEEL

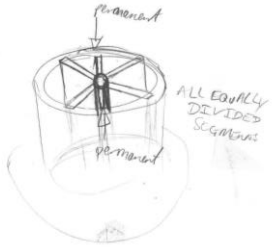

CLIP ON EDGE
USER INTERACTION THROUGH HEARING
CLICKING MECHANISM
click twice for example to know that is a portion.
HANDLES TO PREVENT HEAT FROM BURNING USER
SLOTS FOR DIFFERENT PORTION SIZED COMPARTMENTS TO ENABLE INDIVIDUAL DIVIDERS TO BE PLACED INSIDE & REMOVED TO CUSTOMIZE
TO THE APPROPRIATE AMOUNT


Pea
Carrots
Tan

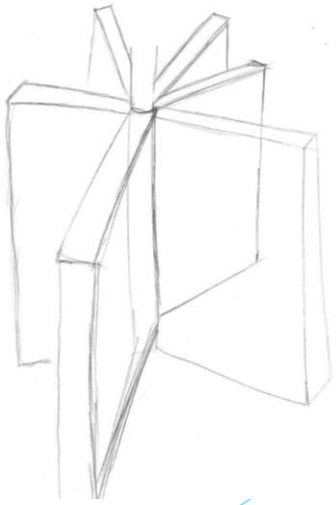


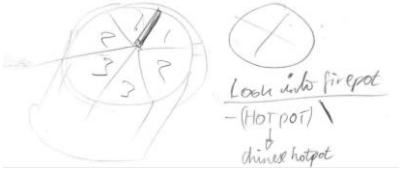






WHAT IS A PORTION?





BAD EXAMPLES OF CO-EXISTENT SAUCEPAN DIVIDERS AND GOOD EXAMPLES

Great Ideas 4 Way 8" Saucepan Sauce Pan Cooking Pot With Four-Way Dividers And Vented Glass Lid

by Great Ideas By Post

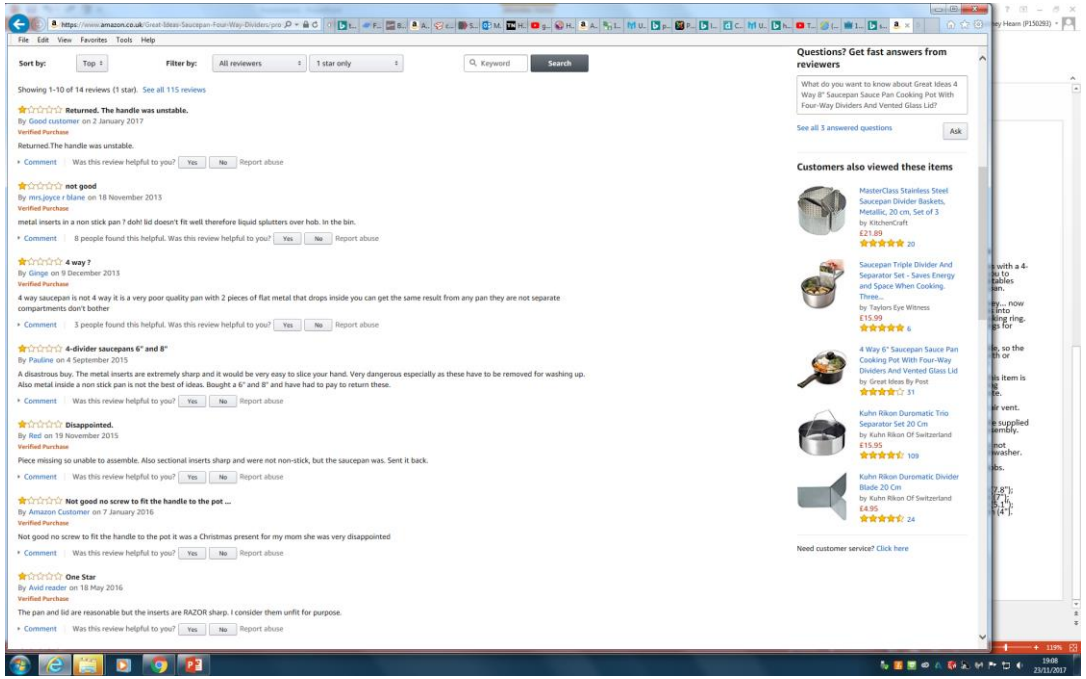
115 customer reviews | 3 answered questions

Available from these sellers.

New (2) from £15.95 & FREE shipping.

- Cook up to 4 foods in the same pan
- Saves time, energy, money and space
- Frees up other cooking rings for other uses
- Comes with lid and air vent
- Dividers are removable

Compare with similar items

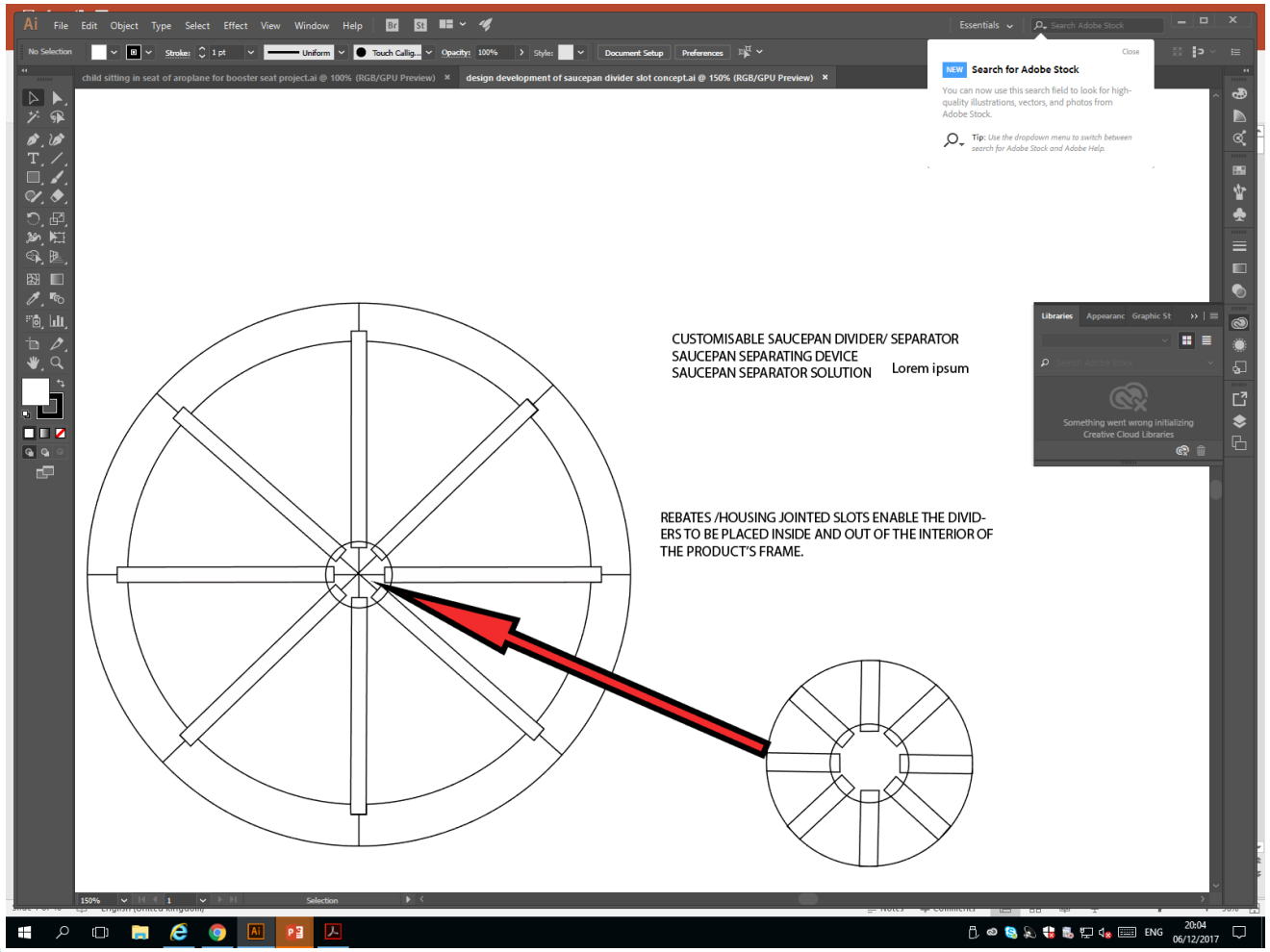


- REFER TO CO EXISTENT PRODUCTS CURRENTLY ON THE MARKET SAUCEPAN DIVIDER SEPARATOR. I SAVED TJIS ON MY EXTERNAL HARDRIVE.

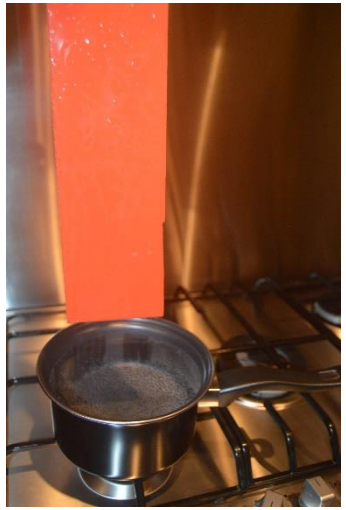
Reference:

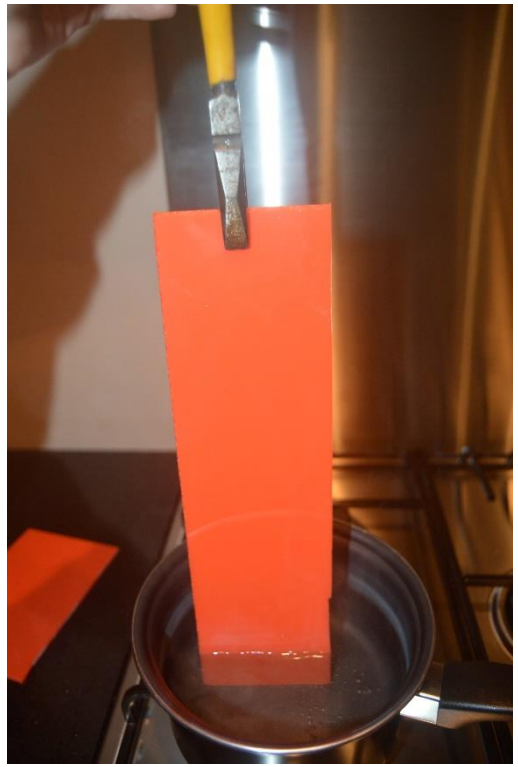
- https://www.amazon.co.uk/Great-Ideas-Saucepan-Four-Way-Dividers/product-reviews/B004OXNO0M/ref=cm_cr_dp_d_hist_1?ie=UTF8&filterByStar=one_star&reviewerType=all_reviews#reviews-filter-bar

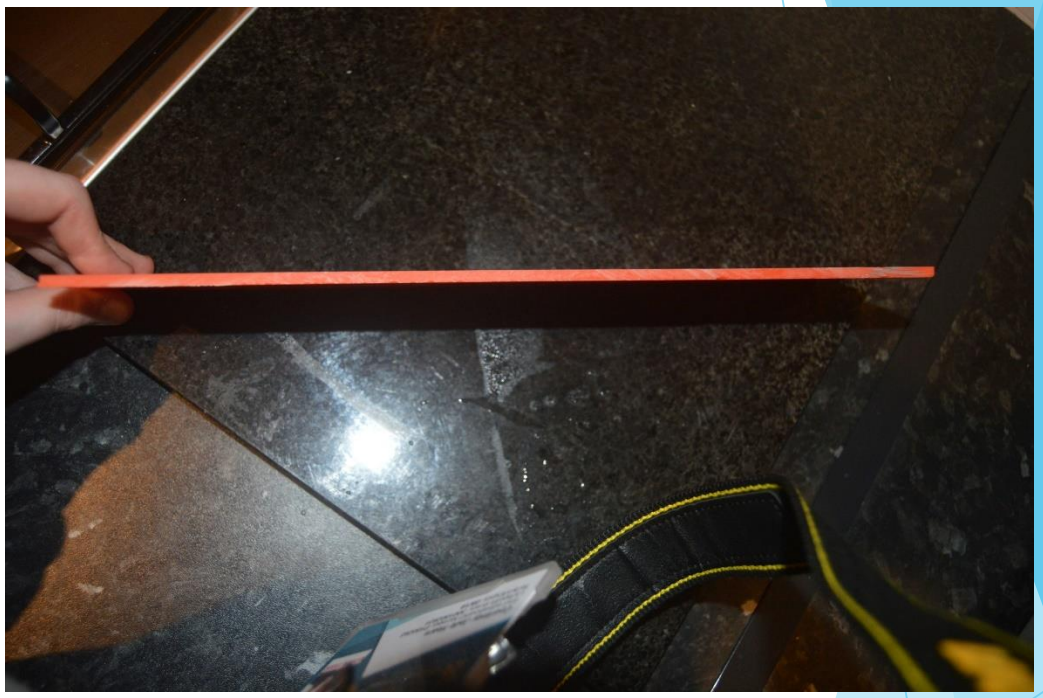
Design work: Here I have drawn up on illustrator how one of my saucepan separator products will function from a birds eye view perspective in 2D Format



Testing and experimenting with the material in which I intend to utilise for the manufacturing of my product prototypes. The material I chose for testing was acrylic perspex polymer.

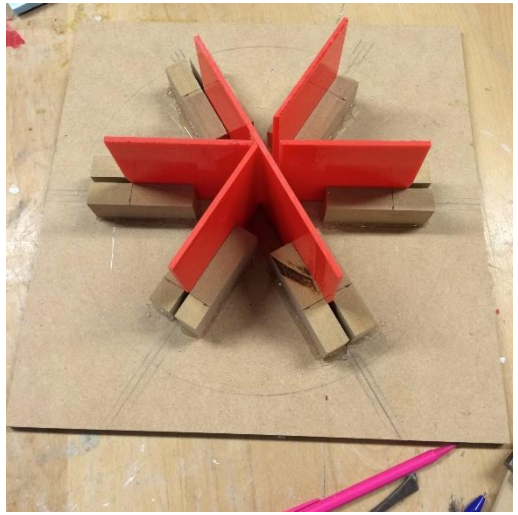


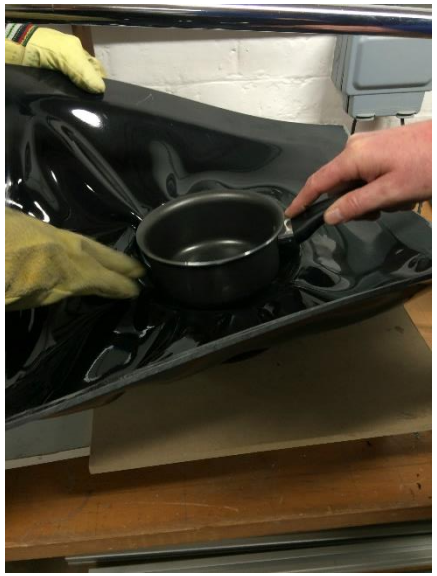


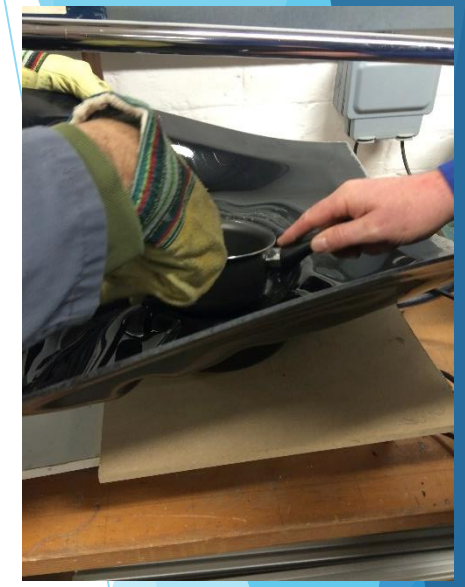


Griping pliers works well as a safety tool to lift acrylic sheet out of hot saucepan. Suitable enough for product testing but not for actual use. The sheet on the right hand side was of the sheet once just been removed from the saucepan for 45 minutes. Including no deformation at all which is why I intend on using this material as suitable for temporary testing of the product to justify the other points in which I am proposing to justify.

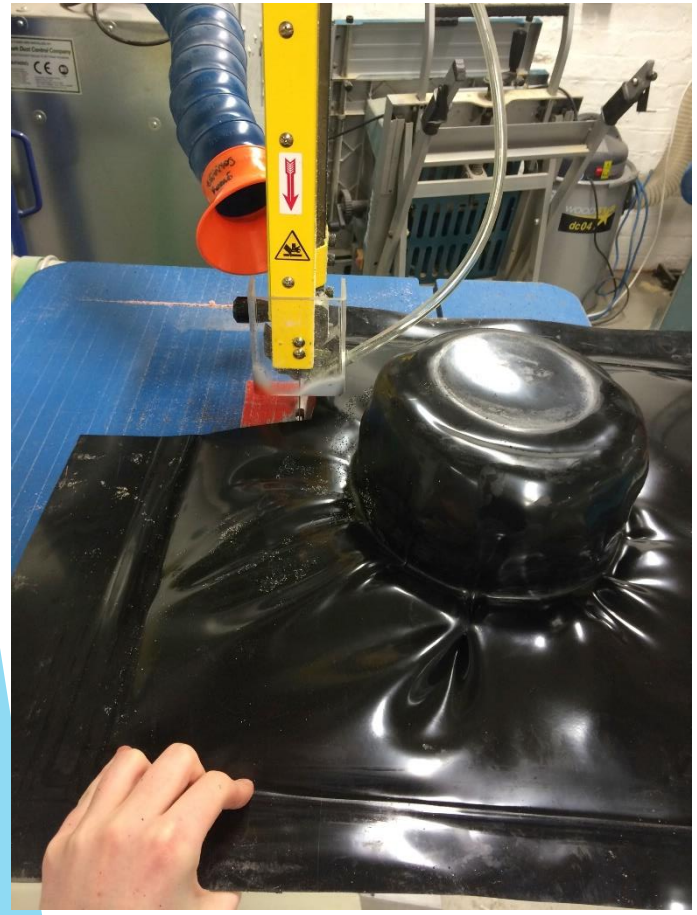
MANUFACTURING PROCESSES OF MY PRODUCT PROTOYPES TO TEST WITH PEOPLE.







TRIMMING THE EXCESS AWAY FROM VACUUM FORMED SHEET TO ENABLE THE REST TO BE SANDED DOWN INTO THE COMPONENT IN WHICH I INTENDED TO PRODUCE IN THE APPROPRIATE SHAPE AND FORM. WHICH WAS FLUSH SANDED EDGES READY FOR THE BASE TO BE SLOTTED INTO THE SAUCEPAN

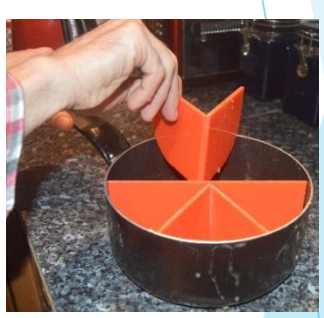


- IN CONCLUSION HERE MY PRODUCTS WOULD ACTUALLY BE MANUFACTURED OUT OF STAINLESS STEEL IF THEY WERE TO BE LAUNCHED ONTO BEING MASS PRODUCED. FOR EXAMPLE THE DIVIDERS WOULD BE STAINLESS STEEL AND THE THE BASE OF THE SEPARATORS AS SHOWN IN THE TWO IMAGES ON THE LEFT HAND SIDE OF PRODUCT PROTOTYPE BEING MANUFACTURED OUT OF HIPS POLYMER UTILSING THE VACUUM FORMING MACHINE, THE BAND SAW AND DISC SANDERS TO TRIM THE EXCESS POLYMER AWAY TO PRODUCE THE BASE

Product Number 3 Manufacturing Process

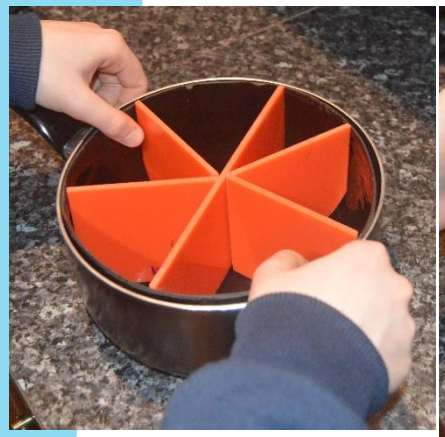
Product 2 In the process of completion of being manufactured

User interaction with my three products to justify my points. (PHOTOGRAPHS)



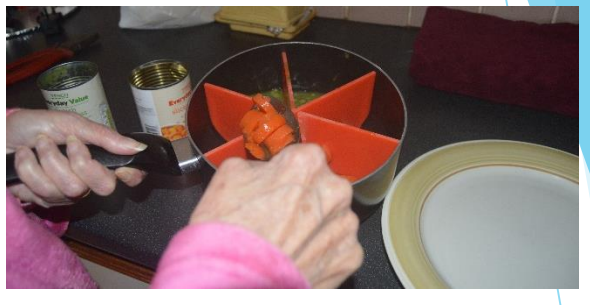
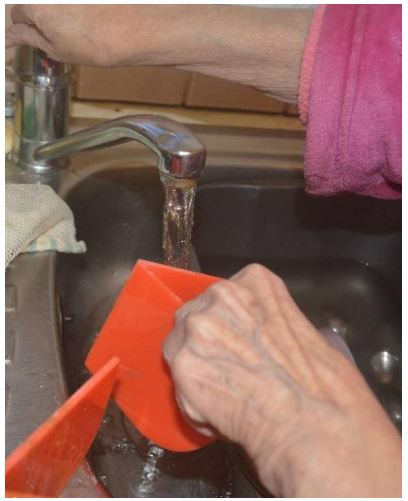
Some examples of John interacting and testing the products

Subject: Myself testing the product



Highlight of me testing the product here. Note I tested them all fully as well as this one

Margret



Margret stated that the best one that was the easiest for her to utilise was the saucepan separators above in comparison to the other two product concept prototypes because they were more lightweight, quicker and easier to wash and set up into the pan. The other two didn't peform as well although the 4 version separator was still grate but