

User Experience

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Contents

Title Page	1
Contents	2
Executive summary	3
Key Design Issues	4
Design intervention	5
New Design Peeler C	5
New Design peeler D	6
Test method	7
Questionnaire Test method	7
Functional Prototypes	8, 9
Results Summary	10, 11
Relationship Trends	12, 14
Conclusion	15
Evaluation	16
Appendix	17, 22

Executive Summary

This report provides a detailed analysis and evaluation of the user experience of two types of potato peelers, A and B. Based on the analysis and evaluation of the existing peelers, two new peelers were produced to improve the user experience of the existing peelers.

Methods of Analysing

Within the report, methods of analysing include primary and secondary research techniques. Some of which included existing peelers analysis which included a studio peeling session, home environment peeling, empathy modelling and fly on the wall video analysis. Secondary methods included, existing peeler internet research, comparative study analysis, arthritis condition internet research.

A Comparative experiment took place between existing and new peelers, in total having 4 peelers to test, 20 participants were asked to take part in the study set up to compare each peeler. (Questionnaires can be found in the appendices). The tests were taken to measure product effectiveness, efficiency and user satisfaction.

Key Findings

Raw data can be found in the appendices. The results of this report found that in the majority of the testing metrics such as time, weight, comfort, aesthetics, function and user experience the concept peelers C and D had overall better mean scores. In terms of efficiency, C and D both had the lowest mean of 48 seconds. When testing effectiveness, the usability study found that C and D were most effective as peelers with a mean of 20. In terms of user experience, the test found that D gave the best experience scoring 81.

Key Design Issues

Both Peeler A and B had several issues. Some similar issues, some completely different.

Peeler A



Peeler B



Peeler A Issues

- Tendency to get stuck in-between the blade and blade holder (the gap between the metal and plastic)
- Difficult and longer to peel potatoes
- Additional holder in the peeler it takes time to try pull it out of the centre part.

Peeler B Issues

- Grip of the handle
- Metal material made it hard to grip if wet - slippery
- Hard to understand how to hold the peeler
- Swivel blade swivelled too much

Design Intervention

NEW DESIGN – PEELER C



With C I have taken a different and unique approach to a traditional potato peeler. It was inspired by a washing scrubber as you can see from the image on the right. I designed it so it holds water which can help assist the user when peeling vegetables. It also helps to reduce the amount of water used in the peeling process as one fill up will last for all your vegetables.



Key Enhancements:

Water Release - The main feature is the fact it can hold water inside. Once filled, it would be able to peel many potatoes but also it 'saves water'. This is a sustainable advantage, reducing domestic water wastage. Additionally, having water on the surface of the potato helps with the peeling process.

Ergonomic Handle – the handle has been designed for your fingers to rest in key positioning areas, improving the overall comfort. This also visually communicates to the user how to hold the peeler.

NEW DESIGN - PEELER D



With this I have studied and analysed the design faults of the original peeler, seeking ways to improve and develop the user experience. Different angles, curves, thicknesses and lengths are all key elements that contributed to the final developed design of Peeler D.

Key Enhancements:

Finger Grip – The handle has an angled cut, cut out of the bottom of the handle which supports the user with the overall grip when using.

Ergonomic Handle – The handle itself has a wider girth which improves grip and comfort.

Angled Blade - The blade is angled downwards. This stops the user constantly adjusting the potato and peeler. It limits strain on the user.

Test Method

The below test method enabled me to find out the overall effectiveness, efficiency and user satisfaction of the 4 peelers.

The metrics used to measure the products are:

Usability Metrics

1. **Time** – the time taken to peel one potato with each peeler. This measures the efficiency and productivity.
2. **Weight** – A measurement will be taken before the potato is peeled and after the potato is peeled. A measurement of effectiveness and successfulness.

Experience Metrics

Comfort – the user will be asked to place a sticker on a **graphic semantic differential scale** to rate the product out of 100, 1 being painful, 100 being very comfortable.

1. **Aesthetics** – “
“1 being unseemly, 100 being stylish.
2. **Functionality** – “
“ 1 being impractical, 100 being functional.
3. **User Experience** – “
“ 1 being negative, 100 being positive.

Other Metrics

1. **How often do you use a Peeler** – place a sticker on a Likert scale, options being:
 - Daily – Advanced Weekly – Experienced
 - Fortnightly – Intermediate Monthly – Novice
 - Yearly – Beginner

The idea behind this scale is to make a link between the user’s skill level and time taken and weight metric. For example, does a daily user who would be considered an advanced peeler have a faster peel time and lower weight than someone who only peels monthly?

Questionnaire

The metrics stated above will be noted during each experiment with a single participant at a time. The metrics will be recorded using a questionnaire (See Appendix 1).

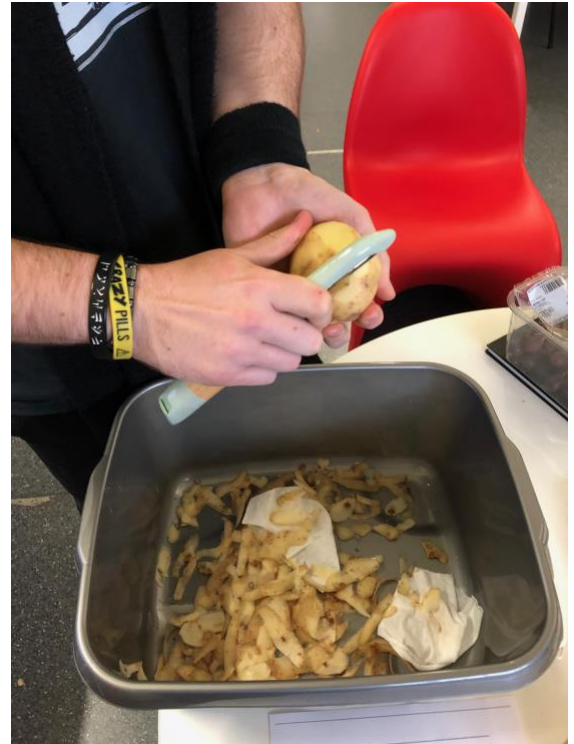
I have created an interactive and graphic questionnaire which involves the user applying stickers to a graphic semantic differential scale. This makes the process of filling out the questionnaire enjoyable and keeps their attention throughout. Another reason for the stickers is that it can give an immediate insight as to how each product performed in the metrics stated above. (See appendix)

Functional Prototypes

Evidence of functional prototypes can be seen from a completed questionnaire which can be found in the appendix. (see appendix)

Below are images taken when testing the peelers.





Results

Summary

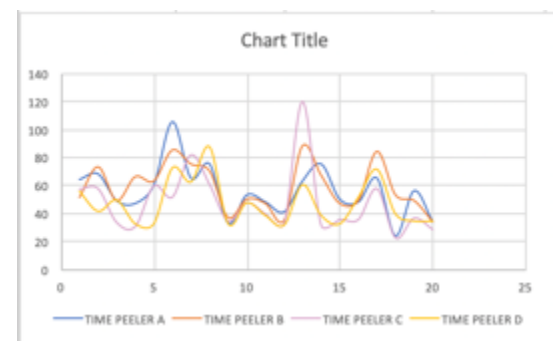
Time

Peelers C and D were the quickest and took less time to the peel potatoes with an average time of 48 seconds. Peeler B had the longest time, scoring an average of 59 seconds.

The range values for A and C had a larger range than B and D this can be due to the fact that A and C are the same type and B and D are the same type.

A key observation here is that the larger population found it took longer to peel a potato with A and B. The graph below shows the data values A and B are higher than C and D.

TIME PEELER A		TIME PEELER B		TIME PEELER C		TIME PEELER D	
Mean	56	Mean	59	Mean	48	Mean	48
Standard Error	4.01972307	Standard Error	3.73131079	Standard Error	5.015006	Standard Error	3.6413865
Median	54.5	Median	52.14	Median	38.5	Median	41
Mode	65	Mode	49	Mode	58	Mode	33
Standard Deviation	17.95102988	Standard Deviation	16.68692914	Standard Deviation	22.427789	Standard Deviation	16.284776
Sample Variance	322.2394737	Sample Variance	278.4536042	Sample Variance	503.00571	Sample Variance	265.19991
Kurtosis	1.785750439	Kurtosis	-0.973913969	Kurtosis	4.721837	Kurtosis	0.315024
Skewness	0.712028464	Skewness	0.312747463	Skewness	1.9203325	Skewness	1.0502186
Range	81	Range	54	Range	97	Range	56
Minimum	24	Minimum	34	Minimum	23	Minimum	32
Maximum	105	Maximum	88	Maximum	120	Maximum	88
Sum	1123	Sum	1172.28	Sum	962.72	Sum	957.25
Count	20	Count	20	Count	20	Count	20

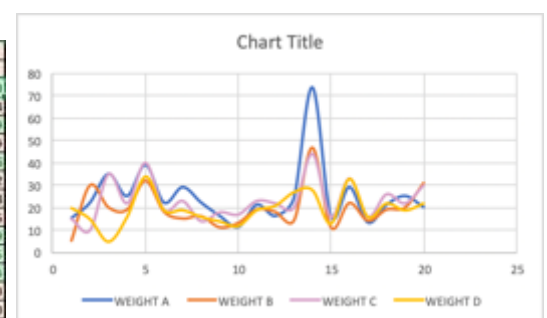


Weight

Peelers B and D had the lowest weight reduction, an average of 20 grams reduction making them the most effective.

A had the highest weight reduction, an average of 25 grams. B and D may have had the better average because of the movement and how the user would peeler the potato. They resulted in having less pressure on the surface so less potato peeled. Whereas A and C, required a different technique to peel and needs more pressure with different hand movements. The graph shows the described trends and patterns.

WEIGHT A		WEIGHT B		WEIGHT C		WEIGHT D	
Mean	25	Mean	20	Mean	23	Mean	20
Standard Error	3.03304172	Standard Error	2.08768318	Standard Error	2.00771538	Standard Error	1.56692794
Median	22	Median	18.5	Median	22	Median	19
Mode	22	Mode	19	Mode	22	Mode	19
Standard Deviation	13.564175	Standard Deviation	9.336403	Standard Deviation	8.97877614	Standard Deviation	7.00751476
Sample Variance	183.986842	Sample Variance	87.1684211	Sample Variance	80.6184211	Sample Variance	49.1052632
Kurtosis	9.30505436	Kurtosis	2.8202519	Kurtosis	0.29945665	Kurtosis	0.55960608
Skewness	2.72169643	Skewness	1.39581812	Skewness	0.93423438	Skewness	0.41602865
Range	63	Range	42	Range	34	Range	29
Minimum	11	Minimum	5	Minimum	10	Minimum	5
Maximum	74	Maximum	47	Maximum	44	Maximum	34
Sum	495	Sum	394	Sum	465	Sum	390
Count	20	Count	20	Count	20	Count	20

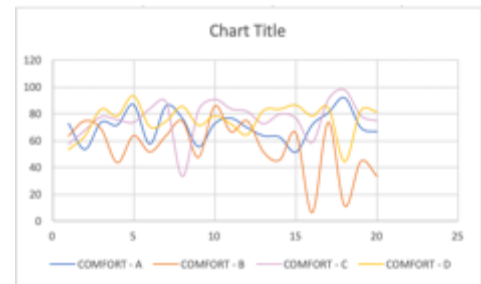


Comfort

Peeler C had the highest comfort rating, an average of 77. The standard deviation for C was 14, this is quite low, suggesting that the data values of the participants were fairly clustered around the mean value.

B had the lowest rating of 56 which suggests it was the least comfortable to use. The standard deviation for this peeler was 12 suggesting that the data values were close together to the mean value.

COMFORT - A	COMFORT - B	COMFORT - C	COMFORT - D
Mean	73	Mean	77
Standard Error	2.453676083	Standard Error	3.159176275
Median	72	Median	78
Mode	73	Mode	79
Standard Deviation	10.97317801	Standard Deviation	14.12820582
Sample Variance	120.4105263	Sample Variance	199.6078947
Kurtosis	-0.433962107	Kurtosis	3.453845133
Skewness	0.527899464	Skewness	-1.482748128
Range	40	Range	64
Minimum	12	Minimum	34
Maximum	52	Maximum	98
Sum	1418	Sum	1533
Count	20	Count	20



Functionality

Peeler D had the highest functionality rating with an average of 84, with the lowest range of 35 meaning there wasn't a big variance in the data values. The standard deviation for D was 10, which means the data values weren't far from the mean value.

The graph displays the data values only dipped up and down around the mean value. B had the lowest functionality rating with an average of 57 as indicated on the graph.

FUNCTION - PEELER A	FUNCTION - PEELER B	FUNCTION - PEELER C	FUNCTION - PEELER D
Mean	77	Mean	78
Standard Error	2.408619991	Standard Error	3.23750635
Median	75	Median	81
Mode	70	Mode	78
Standard Deviation	10.77167318	Standard Deviation	14.47816855
Sample Variance	116.0289474	Sample Variance	209.6289474
Kurtosis	-0.272928933	Kurtosis	-0.469159951
Skewness	-0.536993924	Skewness	-0.540914082
Range	42	Range	53
Minimum	56	Minimum	47
Maximum	98	Maximum	100
Sum	1547	Sum	1569
Count	20	Count	20



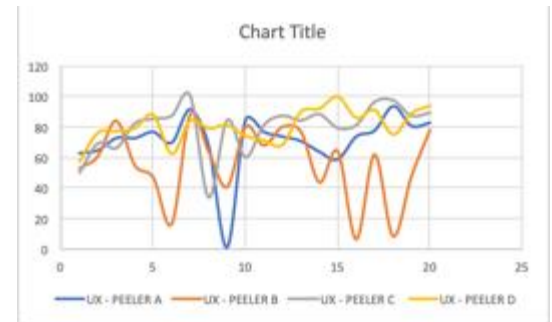
User experience

Peeler D had the highest user experience rating with an average of 81. The second highest was C with an average of 79, very close to D.

The standard deviation for D was 11, which suggest that the data values were close to the mean value. From the graph, the values of D were more consistent than A and B.

B had the lowest user experience rating with an average of 56, with a range of 81 suggesting there was a larger spread of opinion, seen by the dips in the orange line on the graph.

LUX - PEELER A		LUX - PEELER B		LUX - PEELER C		LUX - PEELER D	
Mean	71	Mean	56	Mean	79	Mean	81
Standard Error	4.217694556	Standard Error	5.348524145	Standard Error	3.636148917	Standard Error	2.469045202
Median	73.5	Median	61.5	Median	84	Median	80
Mode	73	Mode	64	Mode	87	Mode	79
Standard Deviation	18.86210347	Standard Deviation	23.91932713	Standard Deviation	16.26135231	Standard Deviation	11.04190582
Sample Variance	355.7789474	Sample Variance	572.1342105	Sample Variance	264.4315789	Sample Variance	121.9236842
Kurtosis	10.56577525	Kurtosis	0.011407773	Kurtosis	2.159573041	Kurtosis	-0.195201795
Skewness	-2.789540737	Skewness	-0.825623361	Skewness	-1.445830919	Skewness	-0.394756111
Range	93	Range	81	Range	66	Range	43
Minimum	1	Minimum	7	Minimum	34	Minimum	57
Maximum	94	Maximum	88	Maximum	100	Maximum	100
Sum	1422	Sum	1127	Sum	1586	Sum	1613
Count	20	Count	20	Count	20	Count	20

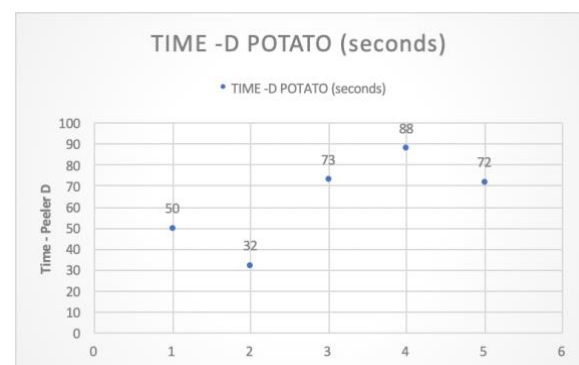
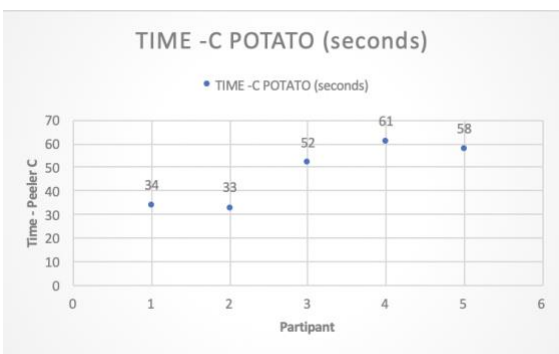
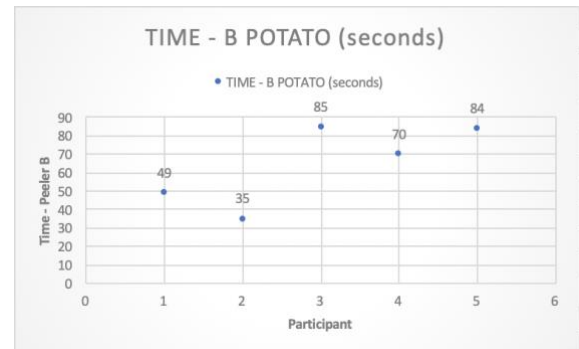
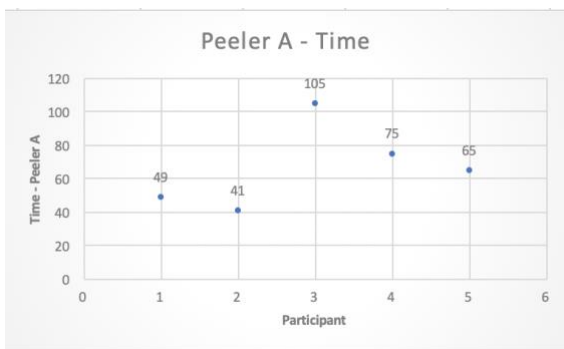


Relationship Trends

Does the amount of times someone uses a peeler effect the time it takes to peel one potato?

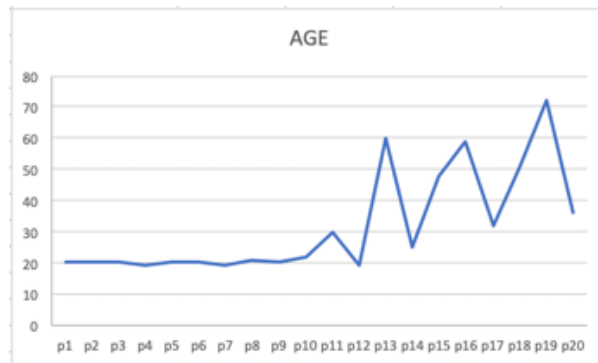
The graphs all have the same trend which is that daily weekly users have scores much less than fortnightly, monthly and yearly users. Suggesting more frequent users have an advantage as they can adapt to each peeler quicker, resulting in quicker times. Despite this, it wouldn't have a negative effect. For example, Weekly users times are consistent and around the same time for each peeler. Monthly users are consistent with the same time too. To answer the question, yes the amount someone uses a peeler does affect the time taken to peel.

Graphs, Values represent Daily=1, weekly=2, fortnightly=3, monthly=4, yearly=5 -- Left to right



Age

The mean age for this usability test was 32, the mode was 20 and the median was 21.5. The graph suggests there were more younger people who took part in this usability study. Its something to consider as younger people have more dexterity and more movement in joints and hands than someone who is 52 and worked all their life.



AGE	
Mean	32
Standard Error	3.76568649
Median	21.5
Mode	20
Standard Deviation	16.8406619
Sample Variance	283.607895
Kurtosis	0.30400041
Skewness	1.25712291
Range	53
Minimum	19
Maximum	72
Sum	633
Count	20

Does the comfort of the peeler produce an overall better user experience?

You can see that there is a positive relationship between comfort and user experience. As the level of comfort increases, user experience increases.

A		
	COMFORT RATING	USER EXPERIENCE RATING
COMFORT RATING	1	
USER EXPERIENCE RATING	0.608559495	1
B		
	COMFORT RATING	USER EXPERIENCE RATING
COMFORT RATING	1	
USER EXPERIENCE RATING	0.7071243	1
C		
	COMFORT RATING	USER EXPERIENCE RATING
COMFORT RATING	1	
USER EXPERIENCE RATING	0.745243671	1
D		
	COMFORT RATING	USER EXPERIENCE RATING
COMFORT RATING	1	
USER EXPERIENCE RATING	0.677425634	1

Does the time it takes to peel a potato influence the amount of weight reduction?

The table shows there is a split response, A and B have a Positive correlation and C and D have negative correlations. This suggests that people who used C and D, as the time increased the weight decreased and when you use A and B as the time increased the weight increased. So C and D were better as less weight was produced when peeling.

A		
	TIME -POTATO (seconds)	WEIGHT (grams)
TIME -POTATO (seconds)	1	
WEIGHT (grams)	0.258250211	1
B		
	TIME -POTATO (seconds)	WEIGHT (grams)
TIME -POTATO (seconds)	1	
WEIGHT (grams)	0.050837094	1
C		
	TIME -POTATO (seconds)	WEIGHT (grams)
TIME -POTATO (seconds)	1	
WEIGHT (grams)	-0.277943031	1
D		
	TIME -POTATO (seconds)	WEIGHT (grams)
TIME -POTATO (seconds)	1	
WEIGHT (grams)	-0.027168591	1

Does the time it takes to Peel a Potato Effect the users comfort when peeling?

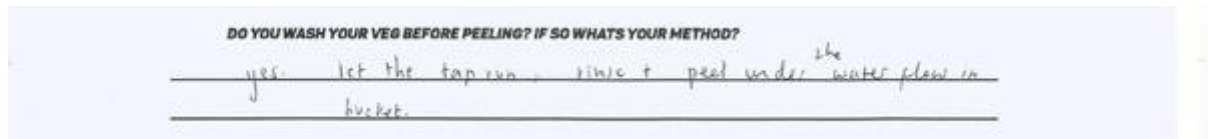
3 out of the 4 peelers have a negative correlation which suggests that as the time it took to peel a potato increased the comfort of the user decreased.

A		
	TIME -POTATO (seconds)	COMFORT RATING
TIME -POTATO (seconds)	1	
COMFORT RATING	-0.187316247	1
B		
	TIME -POTATO (seconds)	COMFORT RATING
TIME -POTATO (seconds)	1	
COMFORT RATING	0.170474548	1
C		
	TIME -POTATO (seconds)	COMFORT RATING
TIME -POTATO (seconds)	1	
COMFORT RATING	-0.187316247	1
D		
	TIME -POTATO (seconds)	COMFORT RATING
TIME -POTATO (seconds)	1	
COMFORT RATING	-0.064849435	1

Do you wash your vegetable before peeling ?

This was a question at the end of the questionnaire and was a chance for some qualitative data. Out of the 20 participants, 17 use water to peel. Whether they filled up a pan or bowl or run the tap or just give them a quick rinse. 85% used water to peel. In relation to peeler C, it would control and reduce the amount of water a participant would usually use, stating the water tank is useful.

Conclusion

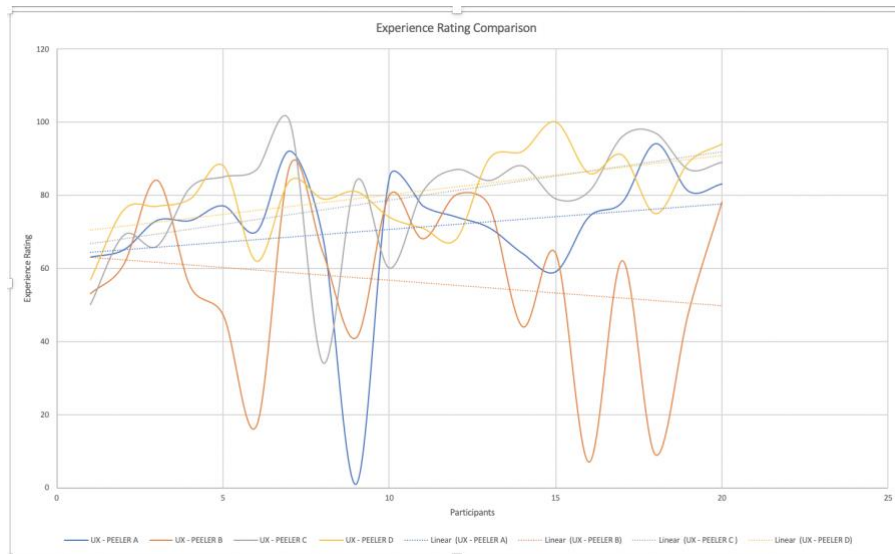


This usability study has given a clear idea to which was the best peeler out of the 4 used. We can't discard the fact that each peeler has its advantages and disadvantages and some will be better at certain things than others. With the results analysed and summarised, there is a pattern throughout the data.

Out of the metrics used to measure the products, Peeler D had the highest amount of values in all of the metrics. It got the quickest time, least weight, highest function and highest user experience that's 4 out of the 6. From this, **it suggests that peeler D was most effective, efficient and satisfied the user most. Peeler D was the best design.**

In my opinion, peeler D was the best due to the design. The cut out of the handle and the increased width of the handle made it easy for the user to use. It also improved the grip of the peeler and this helped to peel the potato, it allowed for less pressure but still a clean cut and each stroke took a larger surface of the potato skin off.

To conclude, when comparing the 2 existing products against the working prototypes its clear that the majority of participants had a better overall experience with peelers C and D. Implied bellow.



Evaluation

The test method used worked well. I was able to get accurate data, the data which I gathered was suitable to the study of comparing the peelers.

One thing that I would add into the test method to improve its credibility is different types of vegetables. Some peelers are better with different vegetables so for example maybe testing the peelers on carrots would maybe make it more of a fair test.

In order to improve the effectiveness, an idea would be to test the peelers when someone was doing a Sunday lunch. This would be beneficial as it would be more of a real representation of how people would use a peeler in reality. I could measure the amount of time it took to peel 5 potatoes and 4 carrots, this would give a more representative of efficiency rating. However the downside of this would be that they would have to repeat the Sunday lunch 4 times over in one test, time would be unrealistic.

Another improvement to my test method would have been to add a "comments" box. This comments box would allow me to make some qualitative analysis and there may have been a few people who picked up on key issues and said the same thing.

Appendices

PARTICIPANT

AGE GENDER OCCUPATION L/R HANDED

DO YOU HAVE ANY CONDITIONS/DISABILITY THAT MAY AFFECT PERFORMANCE OF THIS TASK?

PEELER USED ORDER:

TIME TASK - TIME TAKEN TO PEEL 1 POTATOES (sec)

PEELER A	PEELER B	PEELER C	PEELER D

WEIGHT TASK - HOW MUCH DOES EACH POTATO WEIGH BEFORE AND AFTER TASK (oz)

	PEELER A	PEELER B	PEELER C	PEELER D
BEFORE				
AFTER				

DIFFERENCE

--	--	--	--

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW COMFORTABLE YOU THOUGHT EACH PEELER WAS:

PAINFUL _____ VERY COMFORTABLE

PEELER A
●
PEELER B
●
PEELER C
●
PEELER D
●

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE AESTHETICS OF EACH PEELER:

UNSEENLY _____ STYLISH

PEELER A
●
PEELER B
●
PEELER C
●
PEELER D
●

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE FUNCTIONALITY OF EACH PEELER:

IMPRACTICAL _____ FUNCTIONAL

PEELER A
●
PEELER B
●
PEELER C
●
PEELER D
●

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE OVERALL USER EXPERIENCE OF EACH PEELER:

NEGATIVE _____ POSITIVE

PEELER A
●
PEELER B
●
PEELER C
●
PEELER D
●

HOW OFTEN DO YOU USE A PEELER? PUT A ☐ TO STATE HOW OFTEN YOU USE ONE:

DAILY
WEEKLY
FORTNIGHTLY
MONTHLY
YEARLY

☐
☐
☐
☐
☐

DO YOU WASH YOUR VEG BEFORE PEELING? IF SO WHATS YOUR METHOD?

completed questionnaire

PARTICIPANT # 5

AGE GENDER OCCUPATION L/R HANDED

DO YOU HAVE ANY CONDITIONS/DISABILITY THAT MAY AFFECT PERFORMANCE OF THIS TASK?
NO

PEELER USED ORDER:

TIME TASK - TIME TAKEN TO PEEL 1 POTATOES (sec)

PEELER A	PEELER B	PEELER C	PEELER D
60	63	60	33

WEIGHT TASK - HOW MUCH DOES EACH POTATO WEIGH BEFORE AND AFTER TASK (g)

	PEELER A	PEELER B	PEELER C	PEELER D
BEFORE	246	223	221	214
AFTER	207	191	181	180
DIFFERENCE	39	32	40	34

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW COMFORTABLE YOU THOUGHT EACH PEELER WAS:

PAINFUL ————— VERY COMFORTABLE

PEELER A PEELER B PEELER C PEELER D

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE AESTHETICS OF EACH PEELER:

UNSEXY ————— STYLISH

PEELER A PEELER B PEELER C PEELER D

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE FUNCTIONALITY OF EACH PEELER:

IMPRACTICAL ————— FUNCTIONAL

PEELER A PEELER B PEELER C PEELER D

USING THE SCALE BELOW, PUT A ☐ ON THE LINE TO DETERMINE HOW YOU WOULD RATE THE OVERALL USER EXPERIENCE OF EACH PEELER:

NEGATIVE ————— POSITIVE

PEELER A PEELER B PEELER C PEELER D

HOW OFTEN DO YOU USE A PEELER? PUT A ☐ TO STATE HOW OFTEN YOU USE ONE:

DAILY WEEKLY FORTNIGHTLY MONTHLY YEARLY

DO YOU WASH YOUR VEG BEFORE PEELING? IF SO WHATS YOUR METHOD?

yes. let the tap run. slice + peel under the water flow in bucket.

Raw Data Main Spreadsheet

Participants	AGE	GENDER	OCCUPATION	L/R HANDED	PEELER TYPE A: USABILITY METRICS			PEELER TYPE A: EXPERIENCE METRICS						PEELER TYPE B: USABILITY METRICS			PEELER TYPE B: EXPERIENCE METRICS						CONCEPT TYPE A: EXPERIENCE METRICS			
					TIME - POTATO (seconds)	WEIGHT (grams)	COMFORT RATING	AESTHETICS RATING	FUNCTIONALITY RATING	USER EXPERIENCE RATING	OFTEN USE PEELER	TIME - POTATO (seconds)	WEIGHT (grams)	COMFORT RATING	AESTHETICS RATING	FUNCTIONALITY RATING	USER EXPERIENCE RATING	TIME - POTATO (seconds)	WEIGHT (grams)	COMFORT RATING	AESTHETICS RATING	FUNCTIONALITY RATING	USER EXPERIENCE RATING			
p1	20 F	STUDENT	R	64	15	73	57	70	63 WEEKLY	51.28	5	64	38	60	53		57.72	15	58	51	56	50				
p2	20 M	STUDENT	R	68	22	54	71	56	65 WEEKLY	73	30	75	53	50	61		58	10	68	61	62	69				
p3	20 F	STUDENT	R	49	35	74	62	82	73 DAILY	49	20	69	74	77	84		34	35	78	80	63	66				
p4	19 M	STUDENT	R	47	25	72	75	72	73 WEEKLY	66	19	44	46	66	55		31	22	76	82	77	82				
p5	20 F	STUDENT	R	60	39	87	58	93	77 WEEKLY	63	32	64	17	27	47		60	40	74	86	89	85				
p6	20 F	STUDENT	R	105	22	58	65	70	70 FORTNIGHTLY	85	18	52	48	63	17		52	19	84	72	86	87				
p7	19 M	STUDENT	R	65	29	86	85	84	92 YEARLY	75	15	64	40	78	88		82	23	89	99	88	100				
p8	21 F	STUDENT	R	75	22	77	79	66	68 MONTHLY	70	16	75	46	73	64		61	14	34	55	47	34				
p9	20 M	STUDENT	R	33	16	56	81	81	1 FORTNIGHTLY	37	11	48	56	58	41		35	18	83	92	66	84				
p10	22 M	STUDENT	R	53	11	73	86	85	85 MONTHLY	50	13	86	81	72	80		48	17	91	91	81	60				
p11	30 M	STUDENT	R	48	21	77	86	83	77 YEARLY	47	19	67	59	75	68		40	23	84	65	67	81				
p12	19 M	STUDENT	R	41	16	70	54	75	74 WEEKLY	35	18	75	71	78	80		33	22	82	67	84	87				
p13	60 M	RETIRED	L	63	24	64	98	89	71 YEARLY	88	14	52	84	96	77		120	20	73	91	96	84				
p14	25 F	RETAIL	R	75	74	63	82	70	64 FORTNIGHTLY	67	47	46	68	44	44		32	44	80	88	93	88				
p15	48 M	PLUMBER	L	50	16	52	78	60	59 WEEKLY	47	11	66	64	67	64		36	16	77	73	80	79				
p16	59 M	PAINTER	R	48	29	72	31	74	74 MONTHLY	49	22	7	7	7	7		36	33	59	76	81	81				
p17	32 F	CLEANER	R	65	13	81	73	73	78 YEARLY	84	14	74	49	47	62		58	16	91	95	96	91				
p18	51 F	HAIRDRESSER	R	24	21	92	95	98	94 WEEKLY	53	19	12	10	10	9		23	26	98	100	100	97				
p19	72 F	RETIRED	R	56	25	70	89	72	81 FORTNIGHTLY	49	20	45	40	40	48		37	22	79	70	71	87				
p20	36 R	DOCTOR	R	34	20	67	80	85	83 WEEKLY	34	31	34	42	56	78		29	30	75	81	87	89				

CONCEPT TYPE B: USABILITY METRICS				CONCEPT TYPE B: EXPERIENCE METRICS			
TIME - POTATO (seconds)	WEIGHT (grams)	COMFORT RATING	AESTHETICS RATING	FUNCTIONALITY RATING	USER EXPERIENCE RATING		
56.25	20	54	53	65	57		
42	15	64	77	78	76		
50	5	84	66	74	77		
33	16	79	68	82	79		
33	34	94	79	97	88		
73	19	71	53	78	62		
63	19	75	93	95	84		
88	16	86	63	78	79		
33	14	72	91	78	81		
48	12	79	77	84	74		
39	19	73	53	82	71		
32	21	65	73	70	68		
61	27	83	87	96	90		
39	28	84	85	100	92		
33	13	87	69	100	100		
52	33	79	83	82	86		
72	16	85	85	88	91		
72	22	45	50	75	75		
72	19	83	72	92	89		
72	22	82	75	83	84		

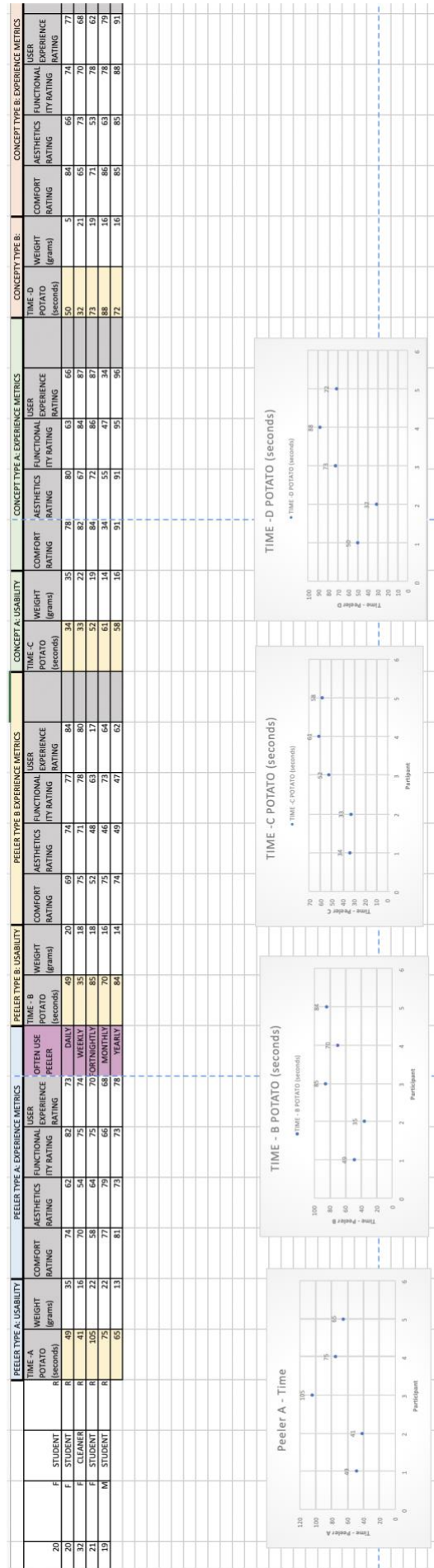
Time vs Comfort

Participants	TIME - POTATO (seconds)	COMFORT RATING	TIME - POTATO (seconds)	COMFORT RATING	TIME - POTATO (seconds)	COMFORT RATING	TIME - POTATO (seconds)	COMFORT RATING				
p1	57.72	58	51.28	64	57.72	58	56.25	54		A		
p2	58	68	73	75	58	68	42	64			TIME - POTATO (seconds)	1
p3	34	78	49	69	34	78	50	84			COMFORT RATING	-0.187316247
p4	31	76	66	44	31	76	33	79		B		
p5	60	74	63	64	60	74	33	94			TIME - POTATO (seconds)	1
p6	52	84	85	52	52	84	73	71			COMFORT RATING	0.170474548
p7	82	89	75	64	82	89	63	75		C		
p8	61	34	70	75	61	34	88	86			TIME - POTATO (seconds)	1
p9	35	83	37	48	35	83	33	72			COMFORT RATING	-0.187316247
p10	48	91	50	86	48	91	48	79		D		
p11	40	84	47	67	40	84	39	73			TIME - POTATO (seconds)	1
p12	33	82	35	75	33	82	32	65			COMFORT RATING	-0.064849435
p13	120	73	88	52	120	73	61	83				
p14	32	80	67	46	32	80	39	84			TIME - POTATO (seconds)	1
p15	36	77	47	66	36	77	33	87			COMFORT RATING	-0.064849435
p16	36	59	49	7	36	59	52	79				
p17	58	91	84	74	58	91	72	85				
p18	23	98	53	12	23	98	72	45				
p19	37	79	49	45	37	79	72	83				
p20	29	75	34	34	29	75	72	82				

Time vs Weight

TIME - POTATO (seconds)	WEIGHT (grams)	TIME - POTATO (seconds)	WEIGHT (grams)	TIME - POTATO (seconds)	WEIGHT (grams)	TIME - POTATO (seconds)	WEIGHT (grams)					
64	15	51.28	5	57.72	15	56.25	20		A			
68	22	73	30	58	10	42	15			TIME - POTATO (seconds)	1	
49	35	49	20	34	35	50	5			WEIGHT (grams)	0.258250211	1
47	25	66	19	31	22	33	16		B			
60	39	63	32	60	40	33	34			TIME - POTATO (seconds)	1	
105	22	85	18	52	19	73	19			WEIGHT (grams)	0.050837094	1
65	29	75	15	82	23	63	19		C			
75	22	70	16	61	14	88	16			TIME - POTATO (seconds)	1	
33	16	37	11	35	18	33	14			WEIGHT (grams)	-0.277943031	1
53	11	50	13	48	17	48	12		D			
48	21	47	19	40	23	39	19			TIME - POTATO (seconds)	1	
41	16	35	18	33	22	32	21			WEIGHT (grams)	-0.027168591	1
63	24	88	14	120	20	61	27					
75	74	67	47	32	44	39	28			TIME - POTATO (seconds)	1	
50	16	47	11	36	16	33	13			WEIGHT (grams)	-0.027168591	1
48	29	49	22	36	33	52	33					
65	13	84	14	58	16	72	16					
24	21	53	19	23	26	72	22					
56	25	49	20	37	22	72	19					
34	20	34	31	29	30	72	22					

Often vs Time



[illegible]

Participants	COMFORT RATING	USER EXPERIENCE RATING	COMFORT RATING	USER EXPERIENCE RATING	COMFORT RATING	USER EXPERIENCE RATING	COMFORT RATING	USER EXPERIENCE RATING
p1	73	63	64	53	58	50	54	57
p2	54	65	75	61	68	69	64	76
p3	74	73	69	84	78	66	84	77
p4	72	73	44	55	76	82	79	79
p5	87	77	64	47	74	85	94	88
p6	58	70	52	17	84	87	71	62
p7	86	92	64	88	89	100	75	84
p8	77	68	75	64	34	34	86	79
p9	56	1	48	41	83	84	72	81
p10	73	85	86	80	91	60	79	74
p11	77	77	67	68	84	81	73	71
p12	70	74	75	80	82	87	65	68
p13	64	71	52	77	73	84	83	90
p14	63	64	46	44	80	88	84	92
p15	52	59	66	64	77	79	87	100
p16	72	74	7	7	59	81	79	86
p17	81	78	74	62	91	96	85	91
p18	92	94	12	9	98	97	45	75
p19	70	81	45	48	79	87	83	89
p20	67	83	34	78	75	89	82	94