

Results

Demographics and informative data

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Sub-categories of items

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Comparison of duration of cooking (recipe vs new)

Exploratory data analysis

Table 1: Participants demographics

p	gender	age	occupation	coo	accomodation	inhabitants	noi	first session
1	male	25	PhD student	Indonesia	house	professionals	2	reg
2	nb	28	PhD student	Germany	house	students	4	new
3	male	19	BSc student	Hong Kong	flat	students	6	reg
4	female	50	Impact officer	USA	house	family	4	new
5	male	30	Administrator	UK	house	couple	2	reg
6	female	32	Jobseeker	Hong Kong	house	professionals	4	reg
7	male	32	PhD student	Iraq	flat	family	3	reg
8	female	33	PhD student	Russia	flat	couple	2	reg
9	female	29	Invigilator	Mexico	flat	couple	2	new
10	male	29	PhD student	Greece	flat	couple	2	reg
11	female	29	PhD student	B&H	flat	couple	2	new
12	male	46	Researcher	Mexico	house	family	5	reg
13	female	29	Lecturer	UK	house	couple	2	new
14	female	35	Housewife	Mexico	house	family	4	new
15	female	72	Retired	Puerto Rico	house	couple	2	new
16	female	40	Housewife	Mexico	house	family	3	reg
17	female	32	Research fellow	Ireland	house	professionals	6	reg
18	female	26	Food scientist	UK	house	professionals	3	new
19	female	37	SC manager	China	house	family	3	new
20	female	46	School director	UK	house	family	3	reg

Note:

p = participant, coo = country of origin, noi = number of inhabitants, nb = non-binary

Table 2: List of recipes

p	Session and type			
	regular	type	new	type
1	chicken coconut curry	curry	mac and cheese	pasta
2	chickpeas curry with rice	curry	butternut squash curry with coconut milk	curry
3	pasta bolognesa	pasta	stir fry chicken, rice and peas	rice
4	green vegetable soup	soup	creamy tomato and chorizo rigatoni	pasta
5	pasta bolognesa	pasta	mexican chicken stew	meat-based
6	noddles (spaggetti) with vegetables	pasta	chicken gyros	meat-based
7	oven roasted chicken	roast	pomegranate rice and salad	rice
8	scrambled eggs	omelette	ricotta pancakes	bread and dough
9	chicken fajitas with rice and fried beans	meat-based	beef, bean, and beer chili	meat-based
10	scrambled eggs	omelette	mushroom risotto	rice
11	pasta bolognesa	pasta	crispy five-spice chicken	meat-based
12	tacos of minced meat and vegetables	meat-based	spanish tortilla (potatoes omelette)	omelette
13	creamy risotto with vegs and prawns	rice	keralan chicken curry	curry
14	vegetable-based stew	soup	cream of spinach soup	soup
15	rice with chickpeas (puerto rican rice)	rice	spinach and chickpea soup	soup
16	oven roasted chicken	roast	white beans with artichokes	salad
17	shepherd's pie	pie	szechuan cabbage and crispy chilli beef	meat-based
18	pasta carbonara & pasta napolitana	pasta	malfatti ricotta and spinach & hummus	dumplings and side
19	shepherd's pie	pie	prawn and black beans curry	curry
20	creamy chicken pasta	pasta	spicy beef with coriander relish	meat-based

Note:

p = participant

Table 3: Source of new recipes

p	new	type_new	device	tool	source
1	mac and cheese	pasta	laptop	website	epicurious.com
2	butternut squash curry with coconut milk	curry	phone	website	shefskitchen.com
3	stir fry chicken, rice and peas	rice	phone	website	studenthut.com
4	creamy tomato and chorizo rigatoni	pasta	phone	website	kitchensanctuary.com
5	mexican chicken stew	meat-based	phone	website	bbc.com
6	chicken gyros	meat-based	book		The Mob Kitchen. Ben Lebus
7	pomegranate rice and salad	rice	notebook	handwritten	partner's recipe
8	ricotta pancakes	bread and dough	phone	website	allrecipes.com
9	beef, bean, and beer chili	meat-based	laptop	website and video	foodwishes.com and youtube
10	mushroom risotto	rice	tablet	website and video	akispetretzikis.com and youtube
11	crispy five-spice chicken	meat-based	book		The 20-minute Cookbook. Jenni F.
12	spanish tortilla (potatoes omelette)	omelette	laptop	video	youtube/RecetasdeCocina
13	keralan chicken curry	curry	laptop and tablet	website	bbc.com
14	cream of spinach soup	soup	book		
15	spinach and chickpea soup	soup	book		The Food of Spain. Claudia R.
16	white beans with artichokes	salad	book		Veg Everyday! Hugh F.W.
17	szechuan cabbage and crispy chilli beef	meat-based	notebook	handwritten	restaurant's recipe
18	malfatti ricotta and spinach & hummus	dumplings and side	phone	website	abelandcole.com
19	prawn and black beans curry	curry	sheet		helloFresh
20	spicy beef with coriander relish	meat-based	book		Bills Open Kitchen. Bill Granger

Note:

p = participant, s.time = suggested cooking time in minutes, s. CPGs = suggested number of CPGs

Table 4: Inventory of available cooking related CPGs

participant	CPGs
1	121
2	199
3	38
4	158
5	266
6	204
7	155
8	220
9	196
10	138
11	208
12	206
13	179
14	301
15	254
16	212
17	423
18	99
19	189
20	272

Note:

Estimation per household.

Table 5: List of CPGs

sub-cat	item	sub-cat	item	sub-cat	item
breads	bread	disposables	disposables	spice	fiveSpicesSeasoning
	cake		beer		garlicPwd
	chips		cider		ginger
cereals	tortillas	drinks	coffee		goyaSeasoning
	bakingPwd		iceRocks		italianSpices
	cornFlour		juice		marjoran
	flour		soda		masalaSpices
	macaroni		spirit		oregano
	noodles		tea		paprika
	nuts		wine		rosemary
	panko		food		salt
	rice		kiwi		seasoning
	rigatoni		lemon		seasoningChicken
cleaningProduct	spaghetti	fruit	lime		spice_ui
	cleaningLiquid		beans		sugar
	cloth		chickpeas		turmeric
	dWashL		greenBeans		whitePepper
	gloves		pen	veg	artichoke
	hWashL		butter		asparagus
	kitchenRoll		lard		aubergine
	napkins		lighter		avocado
	soap		oil		basil
	sponge		oilFlavoured		beanSprouts
condiment	toiletPaper	oils&fats	bacon		bellPepper
	water		beef		butternutSquash
	wipes		chicken		cabbage
	alioli		chorizo		carrots
	cilantroBase		eggs		celery
	coconutCream		ham		chillies
	fishSauce		mincedMeat		chineseGreens
	hoisinSauce		nuggets		coriander
	hotSauce		prawns		corn
	hummus		sausage		courgette
dairy	jam	proteins	pizza		cucumber
	mappleSyrup		riceQuinoa		frozenVegs
	oysterSauce		basilPwd		garlic
	soySauce		blackPepper		greenSnaps
	tahini		bouillon		kale
	tomatoesProcessed		cardamon		leeks
	tomatoesSauce		caribbeanSpices		lettuce
	vinegar		cayenne		mint
	WorcestershireSauce		chilliesFlakes		mushrooms
	cheese		chilliesPwd		onion
disposables	cream	readyToEat	chineseSpice		potatoes
	milk		chives		spinach
	yogurt		cinamon		springOnion
	alumFoil		cocoa		sweetPotatoes
	bag		corianderPwd		thyme
	bagFreezer		cumin		tomatoes
	bakingPaper		curry		turnip
	clingFilm		fennel		

Table 6: List of utensils

sub-cat	item	sub-cat	item	sub-cat	item
clean	brush	heat	toaster	no Cooking	eyeGlasses
	dishTray		tray		key
	dustBrush		wok		remoteControl
	dustPan	informationAccess	rBook		vaper
	mop		rSheet		vessel
contain	towel	manipulate	chopSticks	open	wallet
	vacuum		colander		canOpener
	bottle		cookingSpoon		scissors
	bowl		cutlery	prepare	blender
	boxCondiments		fork		chopB
	bucket	measure	holder		crusher
	cup		ladle		grater
	glass		ovenGloves		jarBlender
	glassWine		pastaServer		knife
	jar		sinkDrainer		mortar
	jarLid		spoon	protect	peeler
	lid		strainer		processor
	plate		tongs		smasher
	mixingBowl		whisk	store	apron
	trashB		measuringJar		container
	coffeeMachine		measuringSpoon		lunchBag
dispose	kettle	no Cooking	scale	tech	sealingClips
	microwave		timer		computer
	ovenDish		wristWatch		phone
	pan		case		radio
	pot		charger		smartAssistant
	riceCooker		clothes		smartWatch
	teaPot		documents		speaker

Table 7: List of environment items

sub-cat	item	sub-cat	item	sub-cat	item
other	fireAlarm	to clean	faucet	to store	cpB
	lightSwitch		dishWasher		dw
	plant	to heat	extractorFan		freezer
	washingMachine		oven		fridge
	window		stove		

Table 8: Type of consumer packaged goods

type	sub-cat	frequency	percentage (%)
CPGs	bread	4	2.6
	cereals	10	6.6
	cleaningProduct	12	7.9
	condiment	16	10.5
	dairy	4	2.6
	disposables	6	3.9
	drinks	9	5.9
	food	1	0.7
	fruit	3	2.0
	legumes	3	2.0
	nonCooking	1	0.7
	oils&fats	5	3.3
	proteins	10	6.6
	readyToEat	2	1.3
	spice	33	21.7
	veg	33	21.7
u	clean	7	8.2
	contain	12	14.1
	dispose	1	1.2
	heat	11	12.9
	informationAccess	2	2.4
	manipulate	14	16.5
	measure	5	5.9
	no Cooking	10	11.8
	open	2	2.4
	prepare	10	11.8
	protect	1	1.2
	store	3	3.5
	tech	7	8.2
e	other	5	35.7
	to clean	2	14.3
	to heat	3	21.4
	to store	4	28.6

Note:

percentage relative to the item's sub-category type

Table 9: Duration of cooking per session

participant	session	
	regular	new
1	36	61
2	76	81
3	21	40
4	45	52
5	41	90
6	45	90
7	88	29
8	28	34
9	68	78
10	39	111
11	56	87
12	80	126
13	42	53
14	73	58
15	50	46
16	70	47
17	113	90
18	44	80
19	70	61
20	68	17

Note:

Time in minutes

Table 10: Comparison of duration of cooking

p	cooking time		difference new - s.
	s. recipe	new session	
1	70	61	-9
2		81	
3		40	
4	25	52	27
5	45	90	45
6	30	90	60
7		29	
8	25	34	9
9		78	
10	55	111	56
11	20	87	67
12		126	
13	90	53	-37
14	55	58	3
15		46	
16		47	
17		90	
18	40	80	40
19	15	61	46
20		17	

Note:

Time in minutes, s. = suggested

Table 11: Interactions by by type

number	CPGs		utensils		environment	
	item	total	item	total	item	total
1	food	1573	cookingSpoon	1023	cpB	552
2	water	571	pan	1000	faucet	471
3	cheese	130	pot	857	stove	313
4	salt	115	chopB	593	dw	245
5	oil	112	bowl	592	fridge	191
6	kitchenRoll	98	knife	554	oven	70
7	onion	97	trashB	464	dishWasher	47
8	sponge	84	plate	389	extractorFan	39
9	chicken	83	spoon	326	freezer	11
10	garlic	83	lid	309	washingMachine	7

Note:

Total number of interactions

Table 12: Duration by type

number	CPGs		utensils		environment	
	item	duration	item	duration	item	duration
1	food	32934	chopB	25070	stove	92478
2	water	9006	cookingSpoon	24416	extractorFan	36518
3	onion	3850	knife	23386	oven	17616
4	chicken	3610	pan	21064	faucet	8406
5	garlic	3336	smartAssistant	12954	cpB	6288
6	sponge	3230	phone	12730	dishWasher	3932
7	cheese	2786	pot	11538	fridge	2358
8	bellPepper	2378	bowl	9406	dw	1582
9	potatoes	1878	tablet	9270	freezer	218
10	eggs	1758	spoon	7132	washingMachine	102

Note:

Duration in seconds

Table 13: Pairwise Wilcoxon's difference of means total number of interactions

	CPGs subcategories															
	bread	cereals	cleaningProduct	condiment	dairy	disposables	drinks	food	fruit	legumes	nonCooking	oils&fats	proteins	readyToEat	spice	veg
cereals	0.8903168															
cleaningProduct	0.2344688	0.0317205														
condiment	0.4515954	0.2296087	0.5574148													
dairy	0.9219475	0.9609280	0.0537034	0.2413302												
disposables	0.6548962	0.4858799	0.5408665	0.7536142	0.4858799											
drinks	1.0000000	0.8903168	0.1726511	0.3573066	0.8749262	0.6548962										
food	0.0000031	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000									
fruit	0.9121723	0.9738453	0.2296087	0.3573066	0.9805026	0.5282062	0.9310364	0.0001045								
legumes	0.1089015	0.0554349	0.0004182	0.0017287	0.0934225	0.0262072	0.1081486	0.0001653	0.1449413							
nonCooking	0.1010202	0.0456704	0.1171514	0.1227528	0.0593784	0.1472715	0.1116437	0.0145592	0.1010202	0.0312430						
oils&fats	0.5639509	0.3516197	0.3048729	0.7879506	0.3573066	0.9297383	0.4515954	0.0000000	0.4515954	0.0020135	0.1010202					
proteins	0.1472715	0.0610631	0.0000008	0.0003184	0.0916052	0.0284405	0.1262982	0.0000000	0.3429473	0.4142448	0.0199905	0.0003608				
readyToEat	0.6677264	0.7438521	0.3573066	0.4319113	0.7134262	0.4858799	0.5535234	0.1472715	0.6826276	1.0000000	0.1811914	0.4656543	0.9190243			
spice	0.1284201	0.0053181	0.7134262	0.3048729	0.0125847	0.3516197	0.0855535	0.0000000	0.1262982	0.0000316	0.1034364	0.1010202	0.0000000	0.3479920		
veg	0.2540791	0.1010202	0.0000000	0.0001269	0.1472715	0.0529342	0.2204225	0.0000000	0.5019885	0.1371827	0.0222402	0.0001447	0.4515954	0.8203569	0	
water	0.0001495	0.0000021	0.0000000	0.0000000	0.0000063	0.0000045	0.0000063	0.0002297	0.0010152	0.0100985	0.0145548	0.0000000	0.0000063	0.4319113	0	0