

*I = interviewer; P6 = participant. Refer to DDM2020 dataset documentation for more information.*

1 I erm so just a few background questions to get  
2 started you told me briefly about the the product  
3 that you wanted to talk about could you tell me  
4 again what was the product  
5 P6 it's a backpack  
6 I mhm  
7 P6 designed for like cyclists but  
8 I okay  
9 P6 they use that when they commute to their maybe  
10 workplace or school  
11 I yep  
12 P6 so not like sports heavy sports backpack by just  
13 for normal life  
14 I yeah and what was the context of this project  
15 where did the design brief come from  
16 P6 er this backpack erm I designed this backpack is  
17 because erm when I studied in London er I use  
18 bike as my transportation  
19 I mhm  
20 P6 and so er I usually ride back to my school  
21 between school and my flat  
22 I yep  
23 P6 so sometimes when I go back home I need to like  
24 erm go to a grocery store to buy some food or to  
25 buy some tools are maybe normal things  
26 I yep  
27 P6 like that but usually I brought my backpack with  
28 my books to school  
29 I mhm  
30 P6 so when I go home I maybe think oh I need to erm  
31 extra space  
32 I yeah  
33 P6 for my for for the shopping things so I think oh  
34 maybe if er the backpack can extend or shrink  
35 I yeah yeah

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36 P6 depends on my usage that would be good so I  
37 started from this point

38 I yeah

39 P6 for my personal experience yeah yeah

40 I okay and was this erm like a final degree project  
41 or

42 P6 yes

43 I yeah okay um

44 P6 and also at that moment um er we have like a  
45 industrial cooperation with ((company name)) so  
46 we went to my tutors and some classmates we went  
47 to er Geneva to visit one of their workshop there  
48 so um we understand how plastic material er as  
49 like element from elements to become products  
50 like after several production and what kind of  
51 erm what kind of material consists for different  
52 erm different targets so we started to learn  
53 something about plastic

54 I mhm

55 P6 and then they introduce erm erm material called  
56 ((material name)) it's like a thermo erm plastic  
57 like it can change its forms they're all changing  
58 their erm er their temperature when they er  
59 produce it

60 I mhm

61 P6 producing err products yeah so I basically this  
62 project is based on my personal experience but  
63 also from another side it's a lot of material

64 I okay and did you work with anybody else in  
65 designing the product

66 P6 no for designing this product I designed by  
67 myself but err when we do our research on the  
68 material erm several of my classmates we work it  
69 together

70 I okay

71 P6 yeah it's like um because we have different  
72 platforms so for my platform it's like design for  
73 manufacture so erm in my platform we erm work on  
74 this topic at the same time

75 I right okay and could you tell me about some of  
76 the design decisions that you had to make

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77 P6 erm so in the beginning because I'm not so  
78 familiar with this material so in the beginning I  
79 tried to test this material

80 I mhm

81 P6 and also try to find er the ideal erm hardness  
82 for my for my product

83 I mhm

84 P6 because in the beginning I don't I didn't know  
85 like what kind of product I want to design

86 I right

87 P6 sorry can I get this phone call

88 I yeah sure so I can stop the recording and then  
89 start it again

90 P6 I'll come back maybe five minutes

91 I okay all right

92 P6 sorry

93 I no it's fine

94 ((interview paused for a minute for phone call))

95 I okay so you were just telling me about testing  
96 the material and you said you hadn't fully chosen  
97 what products to design so you chose the material  
98 first is that right

99 P6 yes and try to find a kind of er what kind of  
100 products can match the material features

101 I mhm

102 P6 because the material that they have erm different  
103 hardness to it can become soft like silicon or  
104 rubber sheet

105 I yeah

106 P6 also can become quite solid plastic

107 I mhm

108 P6 so it's a family of material

109 I and why were you so determined to use this  
110 material

111 P6 er because this material erm they can recycle by  
112 heating erm their material again so old material  
113 become like liquid and then it's become cool it  
114 can become the original material again

115 I okay

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116 P6 and depend on different hardness  
117 I yeah and can it be reused multiple times then  
118 P6 yep  
119 I okay interesting so so in terms of decisions you  
120 decided to use the material and then you were  
121 testing it how did you decide on the product type  
122 P6 um because I'm I saw like a tube and it's like it  
123 can erm extend like normal tube used in your  
124 household erm how to say that it's like a tube  
125 and you can squeeze it and extend it  
126 I okay  
127 P6 I saw that components in the workshop so I think  
128 oh if that can apply on a product maybe for a  
129 product that need small space or large space  
130 I okay  
131 P6 that er users can change by themselves that will  
132 be good so it's like er flexible um use  
133 I okay  
134 P6 when people want to use larger space yeah  
135 I yeah  
136 P6 I don't want to make people feel oh it become  
137 quite big when they don't need so much space yeah  
138 I think I'll make it shrink and then er to save  
139 space or something like that  
140 I yeah okay and which design decision do you think  
141 was most important in terms of sustainability  
142 P6 um I think in the beginning I'm not sure that  
143 every that most of users that I mean cyclist they  
144 they like this design features like it can be  
145 extended or be shrinked  
146 I mhm  
147 P6 so erm I'm not sure in the beginning because I  
148 feel only just myself have this kind of  
149 requirement  
150 I yeah  
151 P6 so I try to do some survey and try to do some  
152 observation and try to interview people let's erm  
153 try to understand how other people think about  
154 this idea  
155 I mhm

156 P6 so I followed er like cyclist growth like London  
157 cyclist group on Facebook

158 I yeah

159 P6 and then I tried to interview some of them in  
160 this group online also erm provide like a survey

161 I yeah

162 P6 erm try to ask people if you are interesting  
163 could you help me to finish the form and I er  
164 will give an update on kind of how this project  
165 goes in the future yeah something like that

166 I okay

167 P6 so from this erm survey and interviewer I found  
168 like um some cyclists they they maybe it have  
169 ((inaudible)) that mean they don't want to add um  
170 extra like bags on their bicycle or maybe like  
171 they just feel it's more easier to um to use a  
172 backpack because when they arrive somewhere they  
173 maybe just can lock their bike and they just go  
174 directly don't need to like disassembling the bag  
175 or extra um extra containers so it's more  
176 convenient for them so um I also ask that oh do  
177 you feel that it's more um convenient to have er  
178 extra space and you can adjust it by yourself or  
179 adjust it by your erm requirement

180 I mhm

181 P6 so er basically um I asked some people and ask um  
182 something about this or maybe as they're all  
183 ((inaudible)) you bring every day on your  
184 commuting er process so some people they provide  
185 their experiences to me yeah to help me do my  
186 decision

187 I mm hmm and how for you how does this user  
188 engagement relate to sustainability

189 P6 um I feel because for the products like backpack  
190 products on the market you know some of them may  
191 be made by fabric and other components and they  
192 um they are made by plastic or made by metal

193 I mhm

194 P6 or it's like a different material combined as a  
195 product

196 I yeah

197 P6 the backpack this kind of category so um I'm  
198 thinking it's ((inaudible)) possible to use the  
199 material ((name)) introduced to us that kind of

200 material it's er try to use this material on one  
201 product so making this our product can recycle

202 I yeah

203 P6 er people dispose it so that's um but people want  
204 to er recycle this backpack what kind of erm like  
205 I feel more easier to do the recycle thing  
206 because they don't need to erm they don't need to  
207 remove a lot of different components

208 I yeah

209 P6 off and then they can send these different  
210 components to recycle so I feel maybe it's more  
211 convenient for consumers to to do the recycling  
212 um work

213 I so your project was made of just just the one  
214 material or were there other components

215 P6 ((inaudible)) of material called ((name))

216 I uhu

217 P6 yes so um so all the material can be recycled

218 I but did you have any other materials for like the  
219 fixtures or

220 P6 er no

221 I no so

222 P6 for the backpack project I just try to use this  
223 material

224 I okay so the whole thing okay

225 P6 it's like a mono material to help people can  
226 recycle easily

227 I yeah

228 P6 compared to other products

229 I yeah okay I see and so did you have erm several  
230 different designs and then you chose one how did  
231 you how did you finalise your design

232 P6 um yes erm I did some like smaller prototypes  
233 that I use paper to test on um I put some how to  
234 say because I test maybe I can share you some  
235 videos

236 I mhm

237 P6 if you like because I make a record on what kind  
238 of test I did before

239 I okay

240 P6 so maybe I test like the hardness and test um the  
241 size of the um the elastic structure and also I  
242 test what kind of what kind of compartment I want  
243 to put in a backpack something like that so maybe  
244 you want to see it after our interview

245 I yeah you can send me that and so how did you  
246 choose which one to go with when you had several  
247 prototypes

248 P6 um every time when I tried to er make a prototype  
249 or maybe just a small structure just for testing  
250 it's because maybe I met some problem I don't  
251 know how to make decisions or maybe just because  
252 sometimes there are several ways I can make the  
253 product but for prototypes it's a little  
254 different from like mass production

255 I yeah

256 P6 I need to use like different way to er to show  
257 people oh how this product looks like

258 I mhm

259 P6 but the making method may be different from mass  
260 production so for prototype this time erm I do I  
261 use sewing to

262 I yep

263 P6 sew the whole backpack but for real production  
264 way like it should be like welding like using on  
265 sheet welding or ((inaudible))sonic welding so I  
266 don't have that kind of ((inaudible)) machine and  
267 I also don't have like a fee to make mould to  
268 make the sewing path to make the welding path

269 I yep

270 P6 so for individual designer maybe try to make  
271 prototype as real as possible is our

272 I yep

273 P6 best method to show people so um at that moment I  
274 try to figure out okay what kind of method is for  
275 real production mass production but what kind of  
276 way that I can make by myself to show erm to show  
277 my tutors or show other people this idea easily

278 I mhm

279 P6 now I try to test um based on this two different  
280 ways yeah

281 I okay

282 P6 so er I also make prototype by welding by using  
283 the er hair like straightener to weld two  
284 materials yeah

285 I okay yeah

286 P6 yeah but um I made that but it's not so pretty  
287 not so um because when sheet material um after  
288 the welding it become like it's not so straight  
289 like the side part ((showing bag))

290 so it's the edge of the backpack it's not so  
291 straight

292 I right okay yeah

293 P6 yeah so um

294 I also made a backpack like ladder shape but it's  
295 um for that one I just try to test oh is that  
296 possible to use in welding to weld whole  
297 structure and it's still strong enough to like to  
298 carry the content the the heavy contents inside  
299 so I did some like loading test

300 I mhm

301 P6 I also did some like quality tests try to test  
302 the real real situation yeah

303 I okay and so you said you showed the prototype to  
304 your tutors and other people did other people  
305 help you choose the final design or did you  
306 choose by yourself

307 P6 um basically um I chose by myself

308 I mhm

309 P6 because um when I um because er like when you're  
310 in college you can like meet your tutor like a  
311 time every week yep maybe during this week we did  
312 some tests and then show to show this result to  
313 our tutor but most of time they just give some  
314 suggestion they will not um they will not ask us  
315 to make a decision on that because it's like a  
316 process to try to find the answer from the  
317 process but um tutors and your classmates they  
318 they are not a real person to involve in this  
319 project so most of time you share your ideas to  
320 them but they maybe give you some feedback but  
321 they will not ask you oh you must go this way you  
322 must go that you'll have to make your own  
323 decision yeah

324 I yep and would you say that your own personal  
325 values informed your decision



326 P6 um sorry can you ask again

327 I would you say that your personal values erm  
328 influenced your decision making for the design  
329 like the things that that are important to you  
330 like for example why did you why did you want erm  
331 sustainability to be part of the design

332 P6 I feel because um for my background um I worked  
333 on more like um consumer how to say I worked on  
334 more electronics products before

335 I okay

336 P6 so like um smartphone or laptop

337 I yeah

338 P6 or more um or products with more plastic um  
339 elements

340 I yeah

341 P6 so um before I started in ((university name)) so  
342 um but when I worked on this project before I  
343 didn't feel um I didn't feel any wrong about  
344 using plastic

345 I yeah

346 P6 oh it's just one of the material but um after  
347 after I started to um realise about  
348 sustainability I realise about um this kind of  
349 plastic um materials I feel a little guilty to  
350 use them yeah

351 I okay yeah and

352 P6 yeah

353 I yeah go on

354 P6 so um I just feel oh maybe as a designer I can  
355 try to make some sustainable products or maybe  
356 use sustainable way to produce product so um so  
357 when I um meet the material ((name)) I feel oh  
358 maybe this is another opportunity to let designer  
359 design something but it can be more sustainable  
360 in the future but of course I I haven't sent this  
361 backpack to real production because I still  
362 cannot find er ideal company or ideal factory to  
363 produce that and also um the recycling system um  
364 I think it's not so easy to make it make this  
365 idea ideas straight out in Taiwan or in the UK

366 I mhm

367 P6 because maybe people um when I live in London um  
368 I feel not so many people do recycle things  
369 correctly

370 I yeah

371 P6 I think because maybe because most of us are um  
372 people from different countries so some people  
373 might just stay in London when they study there  
374 or maybe just one years or two years so people  
375 move in and move out so easily so maybe they  
376 don't have time to realise the recycle system in  
377 London or maybe in UK so I feel some of my  
378 flatmates were maybe just throwing you know their  
379 rubbish in one bag not for they didn't separate  
380 the recycled things and non recycled foods

381 I yeah

382 P6 so I feel ooh wow why why this happen I feel like  
383 everybody should do this but not everyone do that  
384 I try to think about it and think oh maybe there  
385 are some points like people doesn't want people  
386 don't want to do recycle maybe they just feel oh  
387 it's a trouble it waste time for them or maybe  
388 yeah they just don't care about it and so it's a  
389 big shock for me because from when I was living  
390 when I lived in Taiwan before that um we need to  
391 um do our recycling thing correctly or the the  
392 garbage er car and they will not accept your  
393 rubbish

394 I yeah

395 P6 yeah so you have to do it correctly or they just  
396 said goodbye do it at your home again and then  
397 come back later

398 I yeah

399 P6 okay so I feel shocked when I moved to London or  
400 may just because my flatmates

401 I yeah haha no I'm sure it's quite common so you  
402 said that before when you worked in electronics  
403 design you weren't as aware of sustainability  
404 when did you become aware did you become aware of  
405 sustainability

406 P6 maybe around when I enter ((university name)) to  
407 study yeah

408 I yeah

409 P6 so there was some I feel though recycle things um  
410 maybe it's common in Taiwan but people just don't  
411 recycle things for their daily life but but but  
412 just for like this kind of container or like

413 container put food something like that or like um  
414 but for not everything can be recycled like  
415 backpack you don't think about it oh you can send  
416 it you just think about some easy things that  
417 it's simple to it's simple to remind you oh this  
418 can be recycled that can be recycled but you  
419 cannot think about some furniture they cannot be  
420 recycled or because they may be put two material  
421 together

422 I yeah

423 P6 and one material cannot recycle and one material  
424 can recycle so and they combine together  
425 ((inaudible)) cannot be recycled

426 I yeah

427 P6 so I think I um think about this maybe when I  
428 moved to London yeah so it's like differences  
429 between people how people recycle in London and  
430 how and how people recycle in Taiwan

431 I yeah and so did your course at ((university  
432 name)) have sustainable design in it

433 P6 er sorry

434 I did your course have sustainable design erm  
435 teaching did you learn about sustainable design  
436 in ((university name))

437 P6 erm I think so but erm it's not like a course I  
438 feel it's more like erm I don't feel it's like a  
439 specific course but it's more like a conversation

440 I yeah

441 P6 if you change your your ((inaudible)) outside  
442 lecturers because sometimes you'll get some likes  
443 um lecturers and some people share their  
444 experiences so yeah I think um when you join some  
445 of those kind of events you started to realise oh  
446 it can become an important thing so for me it's  
447 not like a course that er tutors specific teach  
448 you erm sustainable things it's like like you're  
449 you've got some information from from media or  
450 from lecturers or from the books maybe I read  
451 yeah

452 I okay so was it more ((university name)) or was it  
453 more moving to London that made you more aware of  
454 sustainability

455 P6 um I think maybe maybe it's a change er in my  
456 mind so maybe I'm not so open minded or maybe not  
457 just don't know this kind of knowledge or  
458 information just don't care before but after erm

459 I study in London I started to um meet different  
460 peoples maybe from different backgrounds

461 I right okay

462 P6 so I feel it's quite lively the conversation is  
463 quite lively sometimes it's not just focus on um  
464 sometimes it's out of box because um when I  
465 stayed in London before I work for a prototype  
466 like prototype company

467 I mhmm

468 P6 but at that moment I feel it's more it's like a  
469 closed space because it seems like we just my  
470 colleague and I just work inside and we just  
471 focus on the projects I guess at that moment so I  
472 didn't I didn't care about other things or other  
473 yeah maybe just didn't have the chance to meet  
474 different people I mean it was quite huge  
475 different different backgrounds yeah like Asia  
476 and Western these kinds of cultural differences

477 I yeah

478 P6 so when you meet different people with different  
479 backgrounds you I think you can think in  
480 different ways sometimes you feel oh some some  
481 friends maybe share something to you you go oh  
482 why I didn't think about that before that's quite  
483 accident but sometimes you'll feel oh when people  
484 share some people oh I have ((inaudible)) maybe I  
485 can share it to you so it's like exchange about  
486 your opinion or thoughts

487 I yeah okay that sounds like a really good positive  
488 experience and so would you say now that  
489 designers have a responsibility to do more  
490 sustainable design

491 P6 I think I think the answer is yes because  
492 sometimes um I feel like when designer design a  
493 new product or new perspective sometimes they  
494 provide their thought their new idea um I think  
495 it's an opportunity to let more people um can  
496 care about some issues like sometimes it's  
497 sustainability sometimes it's like about your  
498 health your health

499 I yeah

500 P6 sometimes about er waste food many people um I  
501 feel designer sometimes it's not design a new  
502 product sometimes they also released some new  
503 ideas or their ideas they've found from their  
504 daily life and they want to share to more people  
505 to um got interest so if more people no this

506 maybe more people can aware that something maybe  
507 you had better not to buy it

508 I mhm

509 P6 or something you had to maybe you can get some  
510 alternatives to purchase so for sustainable  
511 product I I don't mean that I don't ask every  
512 people that everybody needs to buy this kind of  
513 product no I just feel it's like provide another  
514 option to let consumer can choose it may feel oh  
515 sustainable products it's good and it's um they  
516 accept this kind of idea they can join this move  
517 and they can maybe um they can have more er  
518 concerns on this kind of topic by people who just  
519 feel oh I feel normal product is fine and I feel  
520 er it's also fine we don't like persuade them  
521 much to buy sustainable product but if more  
522 people um realise this maybe they can change  
523 their mind or they can change their decisions to  
524 do to do different purchase in the future

525 I mhm and what if a designer is working in a  
526 company that that doesn't think sustainability is  
527 important

528 P6 I feel I feel companies know its important but  
529 sometimes maybe depends on their budget or depend  
530 on their facilities

531 I yeah

532 P6 they cannot change so fast or they cannot do  
533 everything to a standard but I feel recently I  
534 feel that more and more companies they they are  
535 aware this kind of this kind of like issue so um  
536 some companies they do a little change

537 I yeah

538 P6 I feel it's it's okay because they can change  
539 step by step and finally they can reach the  
540 better sustainable method

541 I yeah

542 P6 so it's not like a fast process it's more like a  
543 slow process and everybody starting to learn this  
544 and started to do some change to do some small  
545 things or um big things yeah

546 I so what do you think the designer can do in such  
547 companies to to encourage the change

548 P6 um I feel designer I feel designers actually  
549 don't have such a big power or big rights to  
550 change everything

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551 I mhm

552 P6 it's more like um because like in in a company if  
553 they mae smartphone or laptop this kind of  
554 company I think their target is to find more  
555 consumers to buy their products

556 I yeah

557 P6 so if they got profit on this they can get more  
558 monies or put more monies on changing their  
559 facilities or something like that

560 I mhm

561 P6 but for designers I feel it's like a it's like a  
562 small influencer influencer it's not quite er  
563 main decision makers

564 I yeah

565 P6 because for designer if they work as an in-house  
566 designer most of time they design a product for a  
567 company

568 I yeah

569 P6 yes but sometimes company or their managers they  
570 don't accept this kind of sustainable ideas

571 I mhm

572 P6 because they maybe worry about a budget or  
573 financial situations

574 I yep

575 P6 yeah so I feel it's like a negotiation between  
576 designers and their like boss or their company

577 I mmm

578 P6 again it's not like compulsory things like you  
579 ask everybody to accept but you have to give  
580 people knowledge or educate the people around you  
581 to let them know oh it will become more and more  
582 important in the future and more and more  
583 consumers maybe care about this in the future  
584 yeah

585 I yeah okay yeah that's that's really interesting  
586 um I think those are all the questions I had er  
587 was there anything else that you'd like to share  
588 or to add on this topic

589 P6 not for the not for my product but I read a book  
590 about Patagonia

591 I mhm yeah

592 P6 I think I got a lot of inspiration from that book  
593 I right okay yeah they've been doing it for a while  
594 haven't they yeah  
595 P6 I just read this book recently not not like for  
596 my for making this product I feel if I had read  
597 this last book earlier maybe I can have different  
598 ideas  
599 I okay yeah okay well that's it then erm thank you  
600 so much and yeah it's really useful to have your  
601 your experience and insights for this thank you  
602 well good luck with whatever you're doing next  
603 and your design work  
604 /end/