# Transcript – Part 1

Interviewer

This is the exit interview for Participant 3 and it's part one. To begin with, I will ask a few questions. So first, we're going to talk about the last week. How was interacting with the object in the past week? Was there anything in particular you liked or disliked?

Participant

I found it's the top bit like where you hold it to be a bit finicky. I had longer nails at the time and it was really difficult to use the object properly when I had longer nails.

Interviewer

So the model you were using was sort of designed as like a pendant, what do you think of that idea?

Participant

I do like it. I do think it's quite nice and quite smart because it's quite small. All so you can sort of keep it with you and it's not going to take up a lot of space in your pocket or something. But just holding the middle bit, it's quite difficult. If you've got like maybe bigger fingers or stuff.

Interviewer

So you thought it was a little bit finicky to sort of hold by the top. Right, was there anything you noticed that went wrong when you're trying to use the model at all.

Participant

As some of the time the authentication just wouldn't go through and the pin thing was right. So I had some difficulties with that, but it was really easy to set it onto the numbers and everything that I needed.

Interviewer

So it was easy enough to actually manipulate the object, but occasionally it was a little bit inconsistent in terms of the authentication.

Participant

Yes, that's right.

Interviewer

Uh, was there anything over the past week that prevented you from using the item at all?

Participant

No, I could use it whenever I wanted if I was out or if I was just at home. Definitely easier to use it at home rather than when I'm out.

Interviewer

Did you find that it was easy enough to sort of carry around?

Participant

It was easy to carry around, yeah.

Interviewer

Alright. So you've already you've already mentioned a little bit, but what do you actually think of the shape and the size of the item?

Participant

It is good. As I've said, it just fits easily into your pocket. It's really small as well, so you can hold it quite easily.

Interviewer

So if the model was a commercial product, would you consider buying at all? For your authentications and such.

Participant

I don't know, I mean my own personal sort of opinion is that I don't really know if this would ever be like an actual commercial thing, I feel like it would be used more for banks and stuff. So if I have to use it with like a bank or something else like that, then yeah it would be good.

Interviewer

Is there any particular reason you feel that way? That you feel that it would be more used for banks rather than any other kind of?

Participant

I mean. For authentication, yeah, because, you're the only one who's got the object, so if you want to get into the account then you need to have the object to access it at all.

Interviewer

So you wouldn't consider something like this for your daily use, essentially. Right, and would that be essentially the main thing stopping you from using this as a commercial item if it was one?

Participant

Yes.

Interviewer

OK, that makes sense, so it would be a little bit... It wouldn't really be worth it to get if it was commercial, OK. So now we're going to talk about two factor authentication a little bit more generally. Are you familiar with using two factor authentication methods for banking services or anything like that?

Participant

Yes.

Interviewer

Which ones have you seen? Sort of things like codes being texted?

Participant

Mostly codes. Phone calls or texts with codes, basically.

Interviewer

Would you prefer to use this method over these repeated codes essentially?

Participant

Yes.

Interviewer

Why would you say that?

Participant

It's much more secure.

Interviewer

You think it's more secure?

Participant

Yeah, 'cause I mean, you know people can hack into your emails and stuff like that, but you can't really hack into a physical object.

Interviewer

So you feel that it’s easier for an attacker to gain access to a code that's been emailed to you and interfere with your two factor authentication that way. OK, that makes sense. Is there any reason why you would maybe prefer the codes over this?

Participant

Ah, I guess it's easier with the code because it's just two clicks and then I've got the code, whereas with this I'd need to do a whole authentication thing with the object.

Interviewer

OK. Uhm, so you've already touched on it. Actually, you pre-empted me. But how secure do you feel when you're using the item for authentication? Yeah, and you mentioned you felt more secure using the item than using codes.

Participant

Yes I do.

Interviewer

Right, we've already sort of discussed that one. So all right, that's fair enough. What sort of services would you use this authentication for? You've mentioned banks, but is there any other areas that that you think that this sort of authentication might be useful?

Participant

I'm trying to think.

Interviewer

It's alright, take your time.

Participant

I suppose other places that also use two factor authentication. So like Steam uses it, they could use it there. I think that Email account might be good too.

Interviewer

Do you think that would be worthwhile?

Participant

Yes.

Interviewer

So, what type of devices would you consider using the authentication on? Obviously, you've had experience in using it on your smartphone device, but what others do you think it would be good to use on?

Participant

Other sort of touchscreen devices, so sort of tablets and touchscreen laptops. But I don't really think it would work on computers all that well, so they're not really touch screen.

Interviewer

Assuming that you know you maybe had a capacitive touchscreen USB sort of external device that would be able to read in and into the same things as your smartphone would you, would you say that the models would be good to use on a PC in that case? Assuming that you could essentially.

Participant

Yeah it would be, yeah.

Interviewer

Uh, is there? Are there any other services you could think of, maybe on computers, what might that you want to use this for? Or would it still be sort of mainly banking and that sort of stuff?

Participant

Mainly just places that have got sensitive information.

Interviewer

Yeah, well, that makes sense. This was quite quick, and that's sort of the first half of this little interview, so I'm just going to stop the recording here.

# Transcript – Part 2

Interviewer

This is a Part 2 of the exit interview for Participant 3. So, during this study you only used one object which was the pendent and there were three in total designs for the project, and now you've had a chance to use them. So, having had that chance, which one would you prefer to use?

Participant

I like the dice most.

Interviewer

The cube. Why is that?

Participant

I found it the most fun and easiest to use.

Interviewer

Would you say for the authentications that that having of an entertaining interaction is important to you?

Participant

Uhm, I don't know, but it brings a little bit more fun into having to authenticate stuff.

Interviewer

Authentication just sort of feels a bit like a chore, essentially right, and having a little bit of fun that's sort of a nice break. Yeah, that's actually a pretty cool insight. You also had the chance to look at the credit card one. How did you feel about that?

Participant

Well, I didn't really like that one all that much. It didn't really work for me and it just sort of slid about the screen as well, so that one was a bit too fiddly to use.

Interviewer

A bit inconvenient?

Participant

Uh-huh yeah yeah.

Interviewer

So you mentioned the cube was your favourite, why do you think that you'd prefer that over the pendant as well?

Participant

Well, this was just easier to use and it was much more consistent in the authentications.

Interviewer

Alright. So, I asked the other participants as well just to sort of think about it in terms of security. Of course, all of the models were built with security in mind. A little bit. Uhm so. What do each of the other models that you've seen feel like security wise? Do they feel as secure as the pendant or?

Participant

Well, given that the credit card was difficult to use, that's pretty secure haha. The other two, those were quite secure. Yeah, also like that.

Interviewer

Uh, do you think that's just again because they're the physical objects?

Participant

Yeah.

Interviewer

If somebody were to get access to the object into your phone, how do you think they'd hold up under that sort of scrutiny? Do you think they would still perform very securely, and nobody would be able to authenticate? If it wasn't you. If they didn't know what was going on.

Participant

Well, they have to know the sort of code. To get in so even if they had the object, they still wouldn't know the code. To be able to get in and they can't just find that out either. Like really easily through hacking.

Interviewer

That does make sense, so again it comes down to they're physical, so it feels a lot more secure essentially. OK. That's quite interesting. Right, let's have a look. See if there's any other. So, do you think there's any way that the other models could be improved to make you want to use them? Over the cube, your favourite one.

Participant

Well, we never really, because I suppose not everyone is going to like the cube the most. So I suppose that's just more of a preference thing. Other than that, well, I think this one is more secure.

Interviewer

So was it the interaction that you thought was just a lot nicer?

Participant

Yeah, but someone else might prefer the pendant over the cube.

Interviewer

So if the other objects would be considered for you, you would want the interactions to be completely different essentially. To sort of be more in line with the more fun aspect of the cube.

Participant

Yeah.

Interviewer

So other than the interactions, there's also obviously the shape and the size of the items. So, what do you think about that for the for the cube and for the credit card?

Participant

Well the credit card was just a bit too big. But I thought the cube was a good size.

Interviewer

Right in terms of maybe portability what do you think?

Participant

They're both easy to carry around again, both can fit into your pocket.

Interviewer

Yeah, fair enough. And that's still quite portable, yeah?

Participant

Yeah.

Interviewer

So actually, given that you mentioned the cube was a lot more fun to use, would you consider actually using it for, other types of services? Since you found more enjoyment in authenticating with that over the pendant. Which other services might you be more inclined to use it? You mentioned that you wouldn't really want to use it for things that are very frequent, so like logging into your phone, for example. How would you feel in in those cases, if rather than the pendant you were using the cube.

Participant

I still think it would be a little bit finicky and annoying to use for something that I'd unlock a lot. I'd rather use it for something that I don't go into it often, so again like logging into my bank or PayPal.

Interviewer

OK, yeah.

Participant

I'd rather use it for that because I'm not constantly going on there.

Interviewer

So even though you found the authentication more entertaining you still wouldn't really want to do it more than you had to. Essentially, yeah, OK. So I suppose that's all the questions, sort of regarding the models. But I've also just been asking my other participants about 3D printing because obviously 3D printing is very entwined with these sorts of models. So would you ever in the future consider owning a 3D printer?

Participant

I mean, it depends if I really needed one or not, it's not something I'm looking to buy right now. Well, I wouldn't say no to owning one, but I'm not really actively seeking out one either.

Interviewer

Right, so you think you'd more get it if it was a necessity. OK, so. Do you see in the future Maybe 3D printers becoming a lot more widespread and sort of a household object like paper printers are?

Participant

Yeah, I think so.

Interviewer

OK. You mentioned at the minute you wouldn't really get one unless you needed one, but what could make it more attractive? To buy or is it? Is it just that you don't really have anything to use it for?

Participant

It's just that I don't have anything to use it for.

Interviewer

Yeah, so you think it if you maybe took on a hobby or something that involved, you know, little 3D printed models. That's when you'd consider it. OK, that does make sense. I think that's more or less everything then, so that's all the questions for this section. And once again, let's see if I can actually say the word right in my third recording. I'm going to just reiterate that all of the data and information provided will be stored anonymously. It will be anonymized, the recording of the audio will be deleted after it's been processed into transcription. I'm going to stop the recording, just here.