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Date: 28/07/2016  
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START AUDIO

Interviewer: Okay.

Respondent: Mmm-hmm.

Interviewer: So, what have you observed?

Respondent: Well, I thought the things that worked well were the use of the CAD software, I thought that was really good and they seemed to really engage with that. Also, the use of the camera for the close-ups as well. That was a really good idea.

Interviewer: Mmm.

Respondent: Worked really well.

Interviewer: It was just a last-minute idea that I had. Because I saw it was actually quite good to have that in the laser cutter as well. And then I thought, “Oh, now we’re having four participants and it’s quite narrow and hard to manoeuvre.”

Respondent: Yes.

Interviewer: “If you have two wheelchair users there in the room as well.”

Respondent: Exactly.

Interviewer: And I thought, “Okay, people can go further and have a look, but if you don’t have the mobility to really go close with your eyes and your head to the MakerBot…”

Respondent: Yes. I thought that was just a really good idea, and it just meant that people wouldn’t have to feel uncomfortable and move. So it made things much easier.

Interviewer: Yes.

Respondent: And also, I thought your presentation style was really good. Really friendly, as well. You pitched it perfectly, so that was good.

Interviewer: That’s good. No, I tried to tried to make it very simple, and not over-the-top with technical terms. Which is quite hard when you can’t talk about materials and things like that. But you know, I don’t think it’s so important that they know what a [raft 0:01:21] is or what a support material is, or all the technology details there. As long as they just understand the principle.

Respondent: Yes, I completely agree. So shall I just go through this?

Interviewer: Yes.

Respondent: So, what didn’t work well. I thought the long pause watching the 3D printer possibly wasn’t the…

Interviewer: Mmm.

Respondent: It took about 15 minutes, didn’t it, just watching the TV screen?

Interviewer: Yes.

Respondent: I thought maybe that could have been done differently, a little bit more dynamic.

Interviewer: Yes.

Respondent: So, I said, “How could the workshop be improved?” And I thought, because the printing is the exciting bit, really, but it’s also the boring bit…

Interviewer: The boring bit, yes. It’s really weird. (Laughter)

Respondent: I thought that maybe if you went straight into printing, and you could talk about 3D printing as it was printing.

Interviewer: Ah.

Respondent: When you’re talking about how it worked and stuff like that.

Interviewer: Yes, yes.

Respondent: If it was just running, maybe, in the background from the word go, and it was on the screen and people come in and get settled, and it’s already well on the way, it would be cured. It would be interesting, you can sit around, you can see it printing.

Interviewer: Yes.

Respondent: And then, obviously it would be hard to time, but it would be like, “Beep” and finished, and you can get out and show people. So maybe I would start with the printing.

Interviewer: Right away, mmm-hmm.

Respondent: Yes, and then you can talk. With your talking, it’s not too loud.

Interviewer: I think it’s alright. It’s mostly about having a loud voice. (Laughter)

Respondent: Yes.

Interviewer: But I think the printing noise is pretty constant, so it also should be alright to talk over it.

Respondent: Yes. I mean, obviously, trial and error, I guess. Just like 3D printing.

Interviewer: Yes. (Laughter) That was the sentiment yesterday, right? Trial and error.

Respondent: But I thought that might be nice as well, because people can just see it working straight away. It will probably have them talking about it as well, so, yes.

Interviewer: Mmm-hmm. That’s a good idea.

Respondent: Yes. Because then also you’d be talking over it a long time as well, so \_\_\_[0:03:08].

Interviewer: Mmm.

Respondent: ‘Challenges and support. Which challenges did the participants face?’

Well, I thought the small text on the tutorial website.

Interviewer: Absolutely.

Respondent: I noticed that. And two people using one computer, you’re always going to get one person-

Interviewer: Using it more than the other, yes.

Respondent: That’s just the reality of it.

Interviewer: Mmm.

Respondent: ‘More support needed.’ Some support [with difficult the 0:03:32] tutorials. But otherwise, not really, I thought. Like, some of the tutorials were a little bit unclear about what they were asking. So again, it’s a problem more with Tinkercad than it was with you.

Interviewer: Yes. I mean, 3D modelling is really complex, because there’s always the issue of navigation in 3D space on a 2D screen. I think that’s really a hard thing, because even I struggle with it, and I’ve been using such programmes quite a lot for quite a long time, and still I don’t see, “Is it now in the right position or not?”

Respondent: It’s hard. Sometimes your brain can just flip and you can see the object wrong, can’t you?

Interviewer: Absolutely, and I mean, even through Tinkercad has those lines where you should move something, it’s not really snapping, and I think snapping would be a great help in this particular software.

Respondent: It would, actually, yes.

Interviewer: I mean, if it is a tutorial and it’s not so much about creating, yes. Mmm.

Respondent: No, I agree. Again, that wasn’t from the view of your presentation style, but the Tinkercad tutorials.

Interviewer: Mmm.

Respondent: ‘Did \_\_\_[0:04:32] any work around your ideas?’ Well, for those problems, not really. Not much they could do, really. They needed direct help from you, but that wasn’t that big a problem, I suppose.

Interviewer: No. Something that I just noticed after was in this session, I didn’t really let anyone start to print themselves from the MakerBot.

Respondent: Oh, like, press the button?

Interviewer: Yes. Which would be nice to have in the project once. I mean, there’s one issue with our printer, that the ‘End’ button is super-sensitive. But I think it wouldn’t matter if you just go, ‘Pss’ a little bit too long, and then it just starts it right away if you set up the printer correctly before.

Respondent: Yes.

Interviewer: But do you think that’s something I should consider in the later phase? One day coming back for a project?

Respondent: Yes, I think so. It’s a nice thing to do. But again, it depends, doesn’t it, because some of them are more difficult to get over to the printer and press it?

Interviewer: Yes, I mean, [P5] here would probably not be able to do it, because he can’t control the motoric of his hands, really. Also, he wouldn’t be able to really start the button. He’s really skilled with his mouse and he can do everything in the software, but I think when I give him sample material, he has a really hard time to adjust the heights of him movement and where he grips it.

Respondent: I mean, it’s an option for people who are maybe more able to hold and express their wish to, I think possibly. You can always ask. They can say, “No, it’s fine.”

Interviewer: Yes. Yes. That’s true, but I mean for [P4] and [P2], it wouldn’t be any problem to start, and I think they would actually enjoy it.

Respondent: Yes, maybe. Maybe even putting the SD card in and everything as well.

Interviewer: Yes. I mean, they did all the settings. In principle, they did all the settings themselves, and the software. It’s just starting the physical process of starting the print. That is what I think, letting them do it.

Respondent: It would be quite a nice one, to do that. I don’t think it would [damage them 0:06:39].

Interviewer: You have the impression that they felt that they made it, because they put in the settings on the software and then handed over the SD card. Then I started to print.

Respondent: Possibly not from the downloaded files from the internet.

Interviewer: Yes. Mmm.

Respondent: I think if they printed something they had done, even if it was just a simple square or something, they’d probably get that feeling more. Because they didn’t really understand the object they downloaded. It was someone else’s object, and then something else printed it.

So they probably understand the process more than the feeling they made it.

Interviewer: Yes. I would test this a little bit when I see them on Friday. Because I printed out two versions of the dice in the green material.

Respondent: Oh, did you?

Interviewer: Yes. It didn’t come out perfect, because the MakerBot has this issue, it can’t just print in the air. So some of the edges are really bad, but some of the edges are really good.

I’ve printed two of them now, so I can give them to [P4] and [P1] and see how they react to it.

Respondent: Yes. I think that’s probably more connection than…

Interviewer: Because they modelled it themselves, or they had something to do with the model.

Respondent: Yes. I mean, it’s quite a complicated model for them to do, that one, isn’t it?

Interviewer: Yes.

Respondent: So even if they did something relatively simple, if you…

Interviewer: Yes, maybe I should…

Respondent: Shapes or something.

Interviewer: Yes. Maybe it should have been something like, you know, in the first session, [P1] made the keychain with his name on in Illustrator. So he had, like, a personalised, really from-scratch-built simple object. And I think he really liked to take it home afterwards, that he had two versions of it and it was all his design.

Respondent: Yes. I would possibly not get them to print from Thingiverse. Because if you have the printing started right away, something from Thingiverse, you could demonstrate it and then go straight into maybe…

Interviewer: The modelling.

Respondent: The modelling.

Interviewer: Yes. It would just slow down the whole workshop, wouldn’t it?

Respondent: What, if you went straight to the modelling?

Interviewer: Yes, because the modelling just starts first with those tutorials, which are first about navigating and moving stuff around, and you have already the ready models. And then you go back to creating everything and it actually looks really, really primitive after seeing the fancy models that you’ve been working with in the first tutorials.

Respondent: Yes, I see what you mean.

Interviewer: So, I don’t know.

Respondent: Yes, I don’t know. I don’t think it’s going to be that much slower than just downloading something and printing it, though. At least it would be hands-on. I mean, obviously it’s up to you, but I thought if there was another tutorial, or your own tutorial, which was quick and simple, that’s the whole, they’ve made it…

Interviewer: Absolutely.

Respondent: So even if it’s just a little, like you say, a keyring or something.

Interviewer: Yes.

Respondent: You can give them a template and they could put their name in it.

Interviewer: That’s true.

Respondent: In just a few easy steps, yes. That might do it.

Interviewer: Yes, that’s a good idea. Good.

Respondent: ‘How did the participants respond to introduced technology?’ Positive. They were all very curious and wanted to try, so I thought that was really good.

I think [P5] probably engaged with the ideas the most. He seemed really into it.

Interviewer: Yes, yes.

Respondent: He had loads of ideas, so that was good.

Interviewer: He told me in the preparation interview he had seen it so much and he is a big fan of The Big Bang Theory. And they are talking all the time about 3D printing, and he was like, “Finally I have the chance to do something myself with it.”

Respondent: Yes. That’s nice. He’s a nice guy, isn’t he?

Interviewer: Yes, he is.

Respondent: He does loads on his own. He’s always doing stuff. So, ‘How did they feel about the \_\_\_[0:10:30]?’ At the beginning, they were kind of relaxed, but curious in the middle, I thought. They were a little bit bored when they were watching the 3D printer, but I think they enjoyed getting involved with the TinkerCad.

And at the end, I felt they would have wanted to carry on, you know? Even at the finish, I think a few of them would have liked to carry on.

Interviewer: Absolutely. They were not so much like, “Okay, now we’re finished, we’re going away.” They were just staying and chatting a little bit, alone. So…

Respondent: Yes.

Interviewer: Which is interesting. The first session was with [P1] alone. And he seemed very tired at the end. I had also the impression he was the more tired one yesterday.

Respondent: Yes, me too.

Interviewer: But I think that was right from the beginning that he was a bit tired. But he was also the one who was the most concentrated on doing the modelling tutorials.

Respondent: That’s true, yes.

Interviewer: So maybe he’s just getting quickly exhausted as well.

Respondent: Could be, yes. That’s true, he was the person who \_\_\_[0:11:26] was doing.

Interviewer: Yes. [P4], on the other hand, he was saying from the beginning, “Oh yes, I’m going to play around with it at home.”

Respondent: Yes, he didn’t really want to do it there, did he?

Interviewer: Yes. I think he was really on finding his own pace, or having space for having his own pace.

Respondent: Yes. The only other thing I noticed was that perhaps you didn’t need two assistants, because there were the supporting carers there as well. So maybe it would have been okay with just myself or \_\_\_[0:11:54].

Interviewer: Yes.

Respondent: I don’t know how you felt about that. Just in that space as well.

Interviewer: Yes, it was quite crowded then. It’s interesting for me to see how the carers act in that space. They always tend to go directly to the sofa and take a little bit of a distance, and I think it’s good, it’s really handing over the control to the participants. And they can actually choose how to do stuff, what to do, and they’re really in control.

And you really see that they only call for their carers then to, “Oh, I need some water,” or, “I need something.”

But for the workshop, that’s absolutely none of their business. Even for the one carer yesterday, he was very interested in the 3D printer himself.

Respondent: He was, yes.

Interviewer: So he was actually leaving the couch area and always being close to see the 3D printer himself.

Respondent: Yes, that was good, I think, to see. You’re right, they do always sit back, but I guess that’s where they think their role should be, isn’t it?

Interviewer: I also have the suspicion that it’s a little bit of a gender dynamic. The whole making thing. Because I don’t know if you noticed, but the female carers or relatives always were like, “Okay, we’re watching what happens, but we’re not really interested in taking part.”

Whereas, yes, the male carer, he was like, “Oh yes.”

Respondent: Yes, that’s true, actually. I hadn’t thought of that, but yes, you’re right. And out of the participants, did you have any female participants taking part?

Interviewer: No.

Respondent: That’s interesting.

Interviewer: I think it’s really the technology stereotype about, “Ooh, tech,” and it’s like a male domain.

Respondent: It’s interesting that that carries across into…

Interviewer: Into my workshop, yes. Even though as a female facilitator, it shouldn’t be intimidating, but that’s how it is.

Respondent: It’s interesting. So yes, there you go.

Interviewer: Thank you very much.

Respondent: You’re welcome. I hope that’s useful.

Interviewer: Very.

END AUDIO

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