

Key: Positive aspect Negative aspect Usage difficulty Feature suggestion Personal thoughts on DGBL

Interviewer

That should be the recording. Alright, perfect.

Interviewer

Yeah. So, thanks again for agreeing to this. You've had a chance to look at the participation information sheet, right? We've got your content form as well.

Participant 1

Yes, all fine.

Interviewer

Happy with both of those? Happy to continue on?

Interviewer

Cool.

Interviewer

I don't want to keep you too long, so we'll, we'll jump straight into it. Have you got any questions for me before we launch in?

Participant 1

No, no, I'm. I'm ready.

Interviewer

Awesome. Ready to go.

Participant 1

Yeah.

Interviewer

Before we sort of go into any questions of any depth about the project itself, what's the kind of the highest level of cybersecurity that you've gone into, so I know you're a university student, but anything outside of that, anything within university?

Participant 1

I did do the BA CTF event if that counts.

Interviewer

Right, yeah. Definitely, any security experience.

Participant 1

Yeah, yeah.

Interviewer

And then obviously we've got university modules that you've done within that, right? So you've got sort of an undergraduate knowledge of cybersecurity, which is great.

Interviewer

And GCSE computer science, then thinking back to those days, is that a module that you took at the time?

Participant 1

I did GCSE, but we didn't really touch on cyber a lot much from what I remember. Yeah.

Interviewer

Sure, that's fine. But you've got that sort of GCSE computing understanding.

Participant 1

Oh yeah, and A Level too, yeah.

Interviewer

So overall you've got that experience in the classroom environment?

Participant 1

Yes.

Interviewer

Perfect. But you said not too much cyber security in there.

Interviewer

Yeah.

Participant 1

Yeah. We touch on the theory, but very high level.

Interviewer

That is good to know. It will come in handy pretty soon - when you were looking at GCSE computing or A Level computing, or in fact at university level, did you use digital tools? That kind of thing while you were studying, revising anything like that, preparing for exams?

Participant 1

Just OneNote really. In fact, that was just for making notes.

Interviewer

Yeah, of course. Did you use anything to sort of aid that learning as you went on, or did you kind of focus on lectures, that kind of thing?

Participant 1

Yeah, I didn't really use anything.

Participant 1

Mostly it was just like make notes from the teacher.

Participant 1

Yeah, yeah.

Interviewer

Yeah, OK so then kind of building from that. So, you probably know a bit about it already, but the project is kind of looking at designing a GCSE level teaching tool for cybersecurity, right. So, the idea is matching defences to different attacks that could come in and kind of running a little layer of gamification to that. Over the years a new curriculum is coming in, curriculum is changing. Teachers aren't always, especially new teachers, necessarily equipped to teach everything that could come in.

Interviewer

But this is something that this tool is trying to combat. And like you said, you've had that experience of sort of the high-level cybersecurity teaching at GCSE.

Interviewer

So that's the, that's the only depth it's trying to tackle, right? It's not trying to go any deeper, but just to support what's already been taught in the curriculum.

Participant 1

Yeah, makes sense.

Interviewer

And so any tools that you might have seen in the past then not that you do use any but in anything that you've may have come across, maybe it's a teaching platform with different notes that kind of thing. Would you prefer a layer of gamification in what you're doing or do you like something that just kind of gets straight to the point?

Participant 1

Yeah because then I can remember. I can remember back to it.

Interviewer

So yeah, of course.

Participant 1

Yeah, yeah.

Interviewer

Then, with that in mind, we'll take a look at the game itself, nice and quickly, if that's all right with you. So I'm going to send you a URL. You said you've got your laptop in front of you before, right? So if it's all right, I'll send it to you in a place that's best accessible for that. How would you prefer I send you the URL?

Participant 1

In Teams that's good.

Interviewer

Yeah, that's fine by me, it's easiest.

Participant 1

Oh, actually either's fine. I can see both, so it doesn't really matter.

Interviewer

Oh, perfect. I'll put in the meeting chat here then for you.

Participant 1

Yeah.

Interviewer

Should give you a link that you can click.

Participant 1

Yes.

Interviewer

That should take you to the Unity website.

Participant 1

Yes. Am I fine to be in edge or?

Interviewer

Perfectly fine.

Participant 1

Yeah, just that opened by default.

Interviewer

If you could just open up the game and then you know, anything that comes to mind, just lay it on me. So just let me know anything that you think while you're looking at the game, anything that comes to mind how easy it is to use absolutely anything that you can think of.

Participant 1

So click below.

Participant 1

Am I clicking in the wrong way? I'll try to flip it.

Interviewer

Maybe scroll a bit for a play button.

Participant 1

Yes, that's. Oh, it's my small screen, that's why.

Interviewer

That's OK. That's good to know about, actually.

Participant 1

Don't worry.

Participant 1

OK, drag the countermeasures to the threats above.

Participant 1

OK, Click to play.

Participant 1

Got me thinking now. It's good.

Participant 1

Just quick question.

Interviewer

Of course.

Participant 1

So, and this is the options at the bottom.

Participant 1

Why are some of them there twice? So like access levels and anti-malware?

Participant 1

Oh, OK, yes.

Interviewer

Some of them, yes, and some of them are repeated because the idea of this prototype is just kind of to demonstrate what's going on. And because of that, the sample size of threats and defences is quite small. There are potentially more boxes available than defences written into the file. So as that file expands with more threats, more defences available, that randomness would make something like that happening less likely.

Participant 1

OK.

Interviewer

But it's purely a case of the small sample of defences available right now.

Participant 1

2 for two, one more to go.

Interviewer

So, you seem to have got used to the user interface quite quickly there, right?

Participant 1

Yeah, yeah, yeah. Sorry.

Participant 1

Intuitive - one more.

Participant 1

This one's got me thinking a bit.

Interviewer

Which one is this? The threat?

Participant 1

Undetected vulnerabilities.

Participant 1

It's not encryption, I know that.

Participant 1

Oh, it could be pen. testing.

Participant 1

Yes, 3 for three.

Interviewer

There we go. Awesome.

Participant 1

I'll have another go. Yeah.

Interviewer

Sure, happy to have another go or happy to jump back into some questions if that's alright. It's completely up to you.

Participant 1

Oh, we've got some new ones as well. Even better.

Interviewer

Yeah, so the idea is that you get to experience, you know that sort of random shuffling of different questions on each round as you go through.

Participant 1

Oh, that's good.

Participant 1

Third one again.

Participant 1

Oh, this is interesting because there was one option in the last round that I would have used that isn't there anymore.

Interviewer

Yes. So, some threats can have multiple defences.

Participant 1

Yes, that was interesting. I did work it out in the end.

Interviewer

Right, sounds good. All right.

Participant 1

Yeah. Yeah, but yeah, we can go back to questions if that's good, yeah.

Interviewer

Perfect. Sounds good to me. And so, is there anything that comes straight to mind that you would say about the tool, whether it's usability, ease of use, usefulness, anything like that?

Participant 1

I think it's quite simple to use. Just drag and drop. There's no, it doesn't, you don't even have to type, you just place it on and.

Participant 1

Yeah.

Interviewer

Great. Like you say, you don't have to type. It's just a nice and easy interface.

Interviewer

So, you say you're quite happy with that sort of drag and drop element that the, that that kind of UI provides?

Participant 1

Yeah. And it again, it removes any, like, doubts on.

Interviewer

Yeah.

Participant 1

But if someone's you know, like UK and American spelling and things like that, so it's.

Interviewer

Yeah. True. That's a good point. Fixes American English language differences.

Participant 1

Yeah. It's good.

Interviewer

Yeah. Perfect. So, we said you jumped into it quite quickly. You didn't have any kind of period of "what do I do"? You know, "what do I have to click" that kind of thing?

Participant 1

Yeah, I knew. I knew what to do the first time, because I was kind of scanning through the options. It took a bit longer, but then the second time I was a bit more up to speed and could work it out.

Interviewer

Great. Perfect. So is there anything you might change about the design itself, anything that would make it more clear, more easy to use?

Participant 1

Probably not. I guess I could ask what happens if you get something wrong, but.

Interviewer

Sure, sure, we could give it a go if you like.

Participant 1

Yeah. Yeah, that's.

Interviewer

There is a feature in that.

Participant 1

So.

Interviewer

If you drag one that you know is wrong into a box.

Participant 1

OK.

Interviewer

So what do you think of that as a, as a design choice?

Interviewer

Yep.

Participant 1

I think it's fine 'cause it is wrong in this context.

Participant 1

Yeah. If I was being really picky, but this is as someone who does Web Dev maybe like automatic, automatically pop it back but.

Interviewer

Oh, OK, that's an interesting point.

Participant 1

It's not a big, it's not a big deal. It's just.

Participant 1

Yeah.

Interviewer

Instead of having the user need to move it from the place it drops it back into the options, have the message display anyway, but snap it straight back to where you took it from

Participant 1

Maybe if I'm like bringing in the HCI, it's like the instant feedback.

Participant 1

Yeah.

Interviewer

Right. Yeah, absolutely. That's a very good idea, automatically moving the incorrect answers back.

Participant 1

You've got, you've got me thinking about games and all that.

Interviewer

But absolutely, you know, you're coming at this from a security perspective and HCI perspective, like you said, games as well. It's all really useful to come into it together.

Participant 1

Yeah, I'm not. I'm not a gamer, but if some people who like a challenge if some people like a challenge, you could limit the attempt or something, but.

Interviewer

Yeah, that's another interesting one.

Participant 1

Again, it's probably beyond the scope because at the end of the day you just want to help people learn. It's just it's good to think about these things.

Interviewer

Yeah, exactly. So, attempt limiting. Yeah, definitely one that if it's not implemented, it will be, it will definitely be looked at as, you know, some kind of future works. It's something in that kind of area.

Participant 1

But yeah, I'm going back to your original question.

Participant 1

I think yeah. When it's wrong, it's sufficient.

Participant 1

That's neat, but I know I've got it wrong.

Interviewer

Yeah, yeah, of course. So that visual cue is quite clear.

Participant 1

So that's, that's the main thing, yeah.

Participant 1

Yeah. I mean, it's pretty clear.

Interviewer

Right. I appreciate what you're saying about this instant feedback, though, that's a very good point to consider. So, to fill you in, I forgot to mention at the start the idea is that a survey will be released this week.

Participant 1

Yeah.

Interviewer

The kind of, a first version, and that's the version that you're playing now, and then, based on these interviews, I'll go forward next week in the final development Sprint to make any changes that have come out of these interviews, these conversations, to see if there's anything that could be genuinely useful for the, for the survey version to include.

Participant 1

Sounds good.

Interviewer

That's, yeah, definitely something to take forward.

Interviewer

And again, about extra features then would you find it useful for example.

Interviewer

To have something like a hints option, right? If you're really not sure, to be able to drag or type a threat or a defence and have a sort of a synopsis of that threat or defence to kind of push you in the right direction.

Participant 1

I think yes, just because I've done GCSE and university, it's not as relevant to me, but yeah, definitely, **definitely a good idea**.

Interviewer

If you're looking at this sort of from, yeah, from that GCSE knowledge perspective, you know, someone that doesn't necessarily know all of this already.

Participant 1

Yeah, maybe, I'm just looking now.

Participant 1

Things like personal vigilance and penetration testing like maybe there would have been a time where I'd have no clue what they are. So yeah.

Interviewer

Plus, yeah, yeah, of course. So that, that kind of hints to move people along that could be quite useful then.

Participant 1

Yeah.

Interviewer

Alright, perfect. That's that potentially you know. That's certain definitions.

Participant 1

Yeah. Yeah, definitely.

Interviewer

And that is going back to this sort of, you know, teachers might be coming into this with limited knowledge themselves. So, anything at all that can really aid them with not only these correct pairings, but you know, short descriptions appropriate to an example, that could be interesting thing to look at, then. Yeah, that sounds good.

Interviewer

So then thinking back to, like you said, your GCSE days again, is this a tool that you might have used to kind of aid that knowledge and push you moving along?

Participant 1

Are you saying like if I was doing GCSE now?

Participant 1

Yeah.

Interviewer

Yeah, let's say we were going. You're going to rewind time and sat back in that classroom. Thirty others around you, and you were learning all of this cybersecurity business for the first time again.

Interviewer

Would you have? Do you think it would have made your life easier to have at all where you can interactively think "All right, that goes there, that goes there", and have that kind of real-world implication?

Participant 1

Yeah, because again, like the HCI like, I'm just thinking back to like the **playfulness** of it because for me like **small moments kind of stand out**. So, if I'll do it now. So for example, well, outdated software, if I drag software updates, it's kind of like you're bringing them together.

Interviewer

Yeah, exactly. Bringing concepts together.

Participant 1

I guess that's exactly what you're going for, and that would kind of I'd kind of pair them together.

Interviewer

Right.

Participant 1

And that would help me learn.

Interviewer

Yeah, it kind of brings in that sort of.

Participant 1

Yeah, it.

Participant 1

Yeah.

Interviewer

Sort of the real-world idea of it, right, that you're actively thinking it's a computer over there. This is coming at it. Here's what I'll need to bring in in the middle to stop that.

Participant 1

Yeah, because, it's easy to learn like all these individual terms, but like linking them up.

Interviewer

Yeah.

Participant 1

I think helps me a lot.

Interviewer

Perfect.

Interviewer

OK. So then as a final, you know, as our final question then I'm trying to keep this under 20 minutes for you. That was part of the plan.

Participant 1

Yeah.

Interviewer

Do you think this has potential for flexible use in a classroom? You know, let's think from a sort of a teacher's perspective now.

Interviewer

Do you think it's something that they could physically give to a range of students and think, yeah, this would be good for everyone in my class? Or what kind of flexibility issues do you think could arise from that event?

Interviewer

Sure.

Participant 1

Does **depend on learning styles**, but again, what doesn't depend on learning styles.

Interviewer

Oh, that's true. That's true. Do you think something that a teacher could edit would be useful so that they could change what the synopsis is? If that was implemented or what the threats and defences are?

Participant 1

Oh yeah, definitely. Because like you said, things change. Like the curriculum changes, so.

Interviewer

Yeah, sure, yeah.

Participant 1

It's gonna. It's gonna have to get with the times.

Interviewer

Yeah, of course. And like you said, people have different learning styles in the same way that classrooms have different learning styles. The synopsis that you know I could write, for example, might be different to what a teacher thinks would work for his classroom to properly understand a certain concept for personal vigilance. For example, I might write in, I might write in a way that someone else might not necessarily agree with or might not be as easy to understand.

Participant 1

Yeah.

Interviewer

So great. So that's the sort of idea of an editable game content there.

Interviewer

So that's kind of the end of the list of questions I had. Is there anything else that you might?

Participant 1

No, I think you've you've thought about a few different perspectives and you're aware of what could be done, but right now you're just trying to. You've like you've got this first prototype and then.

Interviewer

So.

Participant 1

If you can add in things like instant feedback and yeah then.

Participant 1

Nothing.

Interviewer

Yeah, instant feedback seems like a big one. That's a very good idea from an informative perspective.

Participant 1

Yeah.

Participant 1

I think I don't really have any questions.

Participant 1

Yeah.

Interviewer

Yeah. All right, perfect. Well, that's everything I have then. So that's everything from your side as well. I'll stop the recording in that case, and we can bring it to a close.

Participant 1

Yeah.