Question 2: Time:(17:11)

Karen: Moving onto the second theme, which we have already touched on slightly is how can different disciplines communicate better with each other? And could that be between art and science, or between academics and technicians or from students to technicians or students to academics. Particularly for undergraduate students when they are given a project from their academic and then sent to technicians to have something made and if that design idea is not working they are then sent back to the academic and if they are not necessarily getting supported either side, then how do we streamline these discussions between different people?

DJCAD Academic 2: The way that we try to structure the art/science module. It seems to be down to people or individuals who are open. I don't know if you can set a structure for it. I think you can either have doors open or doors closed, and the more doors open the better but I don't think you can legislate for that. It seems to work better when its people to people than a set structure whereby you have to do this or that, so I'm not sure whether it can be set in stone or if its more of a human thing that's required.

Karen: So is it a question of the way in which a student approaches a member of staff or technician? Is it about building good relationships with people or...?

DJCAD Academic 2: I think in my experience that's the way it tends to be. These things sometimes take a lot of years to develop relationships and environments in people and they seem to be things that grow better than. I kinda see it as an issue sometimes whereby, particularly when people are chasing funding that things are like, 'oh let's have a new group that's going to do this.' and there's not really any basis for the growth of things because its not based on human interaction, its based on a funding driven situation. I think when it's a person, a human-based thing that's taken time then its more fruitful and beneficial rather than something that's been posed.

SSE Technician 1: Yeah, you've got to have your own enthusiasm and desire to want to do it and if you feel you are being made to do something that seems like its 'extra' and you can't be bothered if its been posed from above. If it's something you wanted to do, it would be much more likely to happen in the end. I think a lot of folk must have such a workload that they maybe see these things as unwanted distractions in a way, from what they see of their core work

Karen: Do you think it's a question of risk to do collaborative projects? A lot of the time there is the unknown in that you don't know how working with a creative or a scientist is going to pan out. Do you think there is that hesitation before you initiate those projects?

SSE Interdisciplinary: It could be. We've had students from other disciplines and I think at certain times of the year anyway, there is initial hesitance because you are worried about getting involved because its got so much work on their own. How much are they going to expect for us to be able to do and is there going to come a time where we are too involved in our own things that you can't or you will end up part-completing which is failing them.

And I think there's also what I found within our own school is going back to the very basics of a student beginning to do a project is a lack of induction: just being shown round, 'this is such and such who might be looking for some help with this.' you know we find students often just appear. We are sitting at our desks and even out of curtesy just to say 'this is such and such' so you know who the face is. And then the student themselves can be lost to know where to go for help, to know 'who can help me' and [redacted] (ST1) says, I'm not quite sure if you would say a distraction, but I certainly find that there's more academics that should be doing more themselves to help the student. We've been in positions where the workshop for instance has had students come in with a drawing saying, 'Can you make this?' The workshop looks around and goes, 'well that's not going to work' so on one hand they are saying there's no point making it because that will take several weeks and its not going to work, but then I shouldn't be designing it for you because its your project.'

Karen: Yeah its like you are expected to take on more roles than you really should be doing.

SSE Interdisciplinary: And you tell them to go and see their supervisor, and the supervisor is like, 'oh, go and see the technicians.' you know...

(exasperated laughter)

Karen: Yeah, yeah... Okay, so within the workshops here (DJCAD) you do get the inductions where students are made to work on various machines to at least know what they are capable of and that they can work them in a safe way. Do you feel like within (The School of) Science and Engineering that it would help to... I don't know, do you do similar inductions within the Fulton workshop, though no one can obviously work on the machinery other than the technicians. Would it perhaps for help students to better understand how some of those machines work and what's actually possible?

SSE Interdisciplinary: They have done it, but we need to do a lot more of, particularly with final year students to explain, 'This is the workshop, this is what we have, this is what we can do for you. This is the 3D printing facility, this is what we can do for you. We have an electronics technician here and if its physics related, [redacted] has a lot of good skills who can help but it doesn't happen enough.

SSE Technician 1: Sometimes there's so many students when they do get introduced properly, you sometimes forget who's who (laughter), and you are never clear what their project is. To be honest, this has been an eye-opener for me looking around here (Karen's exhibition)and its like, 'ah, that's what Karen's been doing' and that's what its all about and I couldn't really get a handle on what your project was.

Karen: Yeah, and I think as well it was about a year and a half into my research before we had that conversation that I'm not a physicist, which really I should've brought that up far sooner and I guess its the question about the impressions you have of technicians: that I always feel that technicians have so many demands on them and don't have a lot of time and therefore normally when I'm trying to approach any technician, whether that's in the Fulton workshop, Harris building or in DJCAD, I am always trying to get what I need as quickly as possible and get to-the-point, but in a way you do end up missing the context of what it is you are trying to do and what your background is as well which is a two-way thing that it's a student's responsibility to give a concise overview of what they are doing but maybe not the whole story, because you don't have time for that!

SSE Technician 1: Well yeah, we've had some students who, where they actually need to do a fairly simple task, go right back ...

(audio breakup 6 seconds)

… sometimes you want to go, 'Just tell me what you want to do with this and I'll get on with it.' Other ones are very vague, I will have no idea what their maquette is and sometimes it doesn't matter. They ask you to do a specific task, you do it, its done and everyone's happy and that's fine, but it would be nice to know I suppose. It would be nice to have more of an overview of what's going on to see a bit more of the bigger picture.

(hmmm noises of agreement)

SSE Interdisciplinary: Something I would like to ask you Karen is you're not from a physics background so have you become more interested in physics?

Karen: Well, one of the interesting things when I was in my fourth year at The Glasgow School of Art making my degree show is that I tried connecting with Glasgow University to get into the astronomy department to see what the data they were collecting looked like and to see the equipment they worked on to better understand what it was to be a scientist. But I wasn't actually able to get in the door in the first place. So one of the reasons why I applied for this research project was so that I could better understand the sciences again because a lot of my (artistic) work is inspired by methods of communication and space exploration and everything that involves from an environmental point of view, and I have always felt I have had quite an outsiders view on my research. So this project helped me understand the sciences better and a more respectful understanding of what you do rather than just what my impressions of what a scientist does on a day-to-day basis. Its one of those things that I don't know if you will ever fully understand what someone does, until you do... At the end of the day, though I am doing a PhD in physics, I still haven't had the full experience of doing physics at school, to doing undergraduate to doing a masters etc that I'm still very much an outsider but still able to gradually, and slowly but surely understand or appreciate the sciences more. So there's been a lot I have been learning about it, particularly that there is that craft behind science: not just within technicians but also in academics in the way that they produce samples etc. You are working in such a fine detail that is even beyond the fineness of jewellery for example. All of a sudden I'm going from millimeters to wafer thin things you know, microns and even below that that the scale is even more extreme that working in metal (in a crafts practice). I guess as well, with physics in particular you are working with gold, silver, rubies, sapphires, and diamonds. All the materials are more or less the same but we are using them in completely different ways so I have found it very eye-opening that there are so many similarities and there is an interesting diversity within that. In many senses, science, metalwork and craft: there's so many overlaps and yet they are so polarized at the same time and its absolutely fascinating that you can have that happen. So yeah, working within the sciences that I've learnt a lot but there's still a lot to learn basically!

(30:53)

SSE Interdisciplinary: Yeah, its been the same with me with... I never had an appreciation of art before and I just saw art as somebody who paints a few pictures and makes a living that way but being involved in some art projects I got more of an appreciation of it and its not just about painting a picture of something.

SSE Technician 1: You're a musician [redacted]...

SSE Interdisciplinary: Em, but one of the most interesting things that happened: there was a Turner nominated artist who approached for help with recreating photographs from Chernobyl, and somebody had taken some pictures and when they had opened the film and developed them, there was a strange ghostly fogging which had been caused by radioactivity that was in the atmosphere. And they asked, 'Can you possibly recreate that?' I never saw the results, I never saw how they came out. We tried various things with radioactive sources and rolls of film. But it opened my eyes to photography as a form of art.

Karen: Hmmm...I guess particularly within art and design, its very much about telling that story, that it is more than the final outcome, and one of the interesting things I've found about physics within science is that many of the narratives and stories are very much underrepresented. Other than astronomy which is a lot more tangible that people can grasp what astronomy is, but I think there's a lot of other physics topics out there that just still feel very distant to people, and from my point of view I feel like we need more creatives collaborating with physicists to get those interesting stories out and communicate them. Its not only about having those interesting conversations for people to find out what you are doing but it could have those further benefits of being able to get funding for the research projects you are doing because you can communicate what it is that you are doing more effectively. And in the [redacted] module do you find... There are two ways of approaching collaborative projects: one's where two disciplines work together for mutual benefit and having that conversation while the other side looking at what I mentioned just there where you've got a subject, whether that's medical sciences for example and if we are looking at diabetes for example and they then just want to have an artist to visually illustrate that topic, which is very much a 'patch art on top of the science' rather than having that conversation perhaps? I guess there's benefits to both but I don't know your... (inviting DA2 to contribute)

DJCAD Academic 2: It's pretty much about the conversation I think. We all function in an area: when you are talking about disciplines here I guess it's a crude brush where we say, 'design, physics, chemistry' or whatever it may be. There's so many nuances in each of these and there are areas that can be one and then the other if you start to break it down further. I'm a great believer that if you want to negotiate or do something interdisciplinary you need to take something to the table, so you need some skills and then you can have a discussion. And there's also this idea of interdisciplinary, cross-disciplinary, and how there are lots of different models in how these disciplines interact. And what we try to teach at the undergraduate level is how

you go about approaching a discussion: so like when you (Karen) came along to all the presentations from all the life scientists, it's a full-on day. You never expect the students to understand a word and I think it is about realizing that there are different languages: specific languages that are specific to different disciplines and how do you start to have those conversations when you are speaking different languages. And I think if you go in realizing that there are these different things then it helps, so all we are doing is building an awareness for these things that can set up these discussions a lot easier... if that makes sense?

(36:30)

Karen: Yes, yip. So do you think its even just about managing people's expectations, for example if a physicist does want to approach a creative but maybe they have an idea of where that will end up going or vice versa for the creatives as well?

DJCAD Academic 2: Yeah I think managing expectations is a big thing, particularly with students who expect to have a strategy that will find a new star or something (laughter). Expecting what might come out of something is very interesting but on a much smaller scale. And understanding these... we do a lot of work with life sciences: we're not training artists to be life scientists or vice versa, we are just trying to say there's things in between that need negotiation between different languages and different understandings of the world because ultimately everybody's just trying to make sense of what's going on, I think.

(silent pause)

DJCAD Academic 2: I've gone to some science conferences and started off projects and I've had no idea what's been discussed. And I think it's interesting because it's been so abstract that you start to get things that haven't been talked about at all. Because you start picking up on a different thing, and that goes somewhere else: I can't illustrate or do an artwork of something when I don't know what it is, but it might start this discussion about why I don't know what it is.

Karen: Yes... and it is that, with topics that are very difficult to decipher, I guess in a way it almost is like both people's responsibility to tease out that information and to work within that information literacy conundrum, to tease out what both people need from that scenario perhaps?

(silent pause)

Karen: And in terms of trying to break through that language: do you think that trying to visualize that language beyond trying to verbally communicate..., do you think that sitting down with a pen and paper can work from time-to-time, or having hand-drawn sketches or CAD, or a mix of various things depending on the topic?

DJCAD Academic 2: Yeah different tools help. I think the best example of collaboration which has been mentioned is with music, because you have a band of people playing different things and you end up making something that none of you had planned on. There are different languages that are involved and different skills that are involved.

SSE Interdisciplinary: I think it even comes to thinking about album covers as well. There's some great iconic albums that use a great piece of art where, I'll use Joy Division for an example, on the 'Unknown Pleasures' cover it's a radio waves plot of pulsar. People still talk about it nowadays even though the band knew nothing about what it was, its still a great piece of artwork and they appreciated it and said, 'that's what we want.'

Karen: And as you say there, there is that whole collaboration between how do you change something from an audio sound into visual? How do you capture that narrative from a discipline in a way?

SSE Technician 1: I suppose if you look at a cave painting from thousands of years ago. Different people will look at it and think of different things. Some people think, 'Oh it's a horse.' or, 'It's a bison.' or something, and they will be thinking, 'why did they do it? Was it related to them wanting to hunt these things successfully or was it a sort of ritual?' and I suppose other folk will be thinking, 'What sort of paint did they use? How did they mix these colours? What's the chemistry?' and then other folk have some other completely different take on it and say, 'Wow how realistic, look at the art in that, its just like the real horse its amazing!'. I suppose really like you say its thinking in a different language really and coming at it from a different angle and I suppose its how you try to see the big picture and try to combine all these different elements that are there.

Karen: And do you think its about having respect for different points of view, rather than people being like, 'Oh you should only approach problems from this logical point of view.' Whereas when as you're saying everyone's coming from such diverse backgrounds that actually for interdisciplinary projects you need that diversity to tackle things from all points of view in a way.

(Silent nodding)

Question 3: Time (42:40)

Karen: Eh, so the last theme is, what could realistic goals be for interdisciplinary research? So if there's one thing that's really key for interdisciplinary research to move forward. ...any ideas?

SSE Interdisciplinary: I think a good starting point would be better knowledge of what goes on in each discipline outside your own because if you have that greater knowledge then you won't be fumbling around in the dark hopelessly not knowing what to do, but asking how can I do that? So you might know about the sort of equipment they might have or what individuals can offer, so its probably more about people like myself visiting, having tours, meeting people and understanding what goes on and being able to pass that back.

Karen: And do you guys (SI & ST1) think that broadening your experiences beyond your normal working experience, do you think that would benefit?

DJCAD Academic 2: I think that would be terrific yeah, I think it's a good idea when you have a bit of time, particularly with art it's the time to sit on it: let's have a look at what we've got and so there's an awareness at least of what's happening and somewhere down the line the dots might connect and you go, 'Oh they've already done this and that's what they are dealing with.' but if you don't know you are never going to make the connection.

Karen: And I guess there is always the struggle of time pressures, and how much time are you going to carve out to go and have meetings with other physicists or creatives and how do you book out that time to make those meetings or even just dropping in on people. And do you think it could even be about being open about your perceptions of different disciplines as well in terms of as you have mentioned that with creatives as you have worked on a few projects that your ideas of how creatives work and conduct their creative process and how that has changed your perspective, do you feel that perhaps even at a student level that it might be good to expose physicists to people with the arts background? I think it would be really interesting to have a similar module to [redacted] have physicists moving into art for a module.

DJCAD Academic 2: That would be good to open up even more, yeah.

SSE Interdisciplinary: Well I think that the degree shows are a really good thing. I normally come up because the workshops have helped a couple of students, and maybe go and see – like what you've done here- to see what it's all about. I guess actually going along all the work that people have been doing and picking up, 'well that's interesting, that's a collaboration going on and it's really interesting what they are doing.'

Karen: Also with collaborative projects, at the end of the day its someone's responsibility to deliver something within that project. Do you think there needs to be that balance of communication between the two disciplines of what your expectations are, of what deliverable you might have from the offset and have conversations throughout the process as things develop or change? I don't know, how can you resolve who's responsible for the project at the end of the day? Do you think it's important to have that clear at the beginning or...?

DJCAD Academic 2: I think it's nice when things are open because there's a negotiation and things happen. If you've got the limits fixed then you are kinda chained to it, rather than if its open. Open-ended... it's maybe more difficult to manage but its more interesting as a process.

Karen: And from your point of view, is it … I always see that from a scientific point of view that everything is characterized for example, that you have a theoretical idea of what can be done and then you are trying to chase that in an experimental way to make that happen or get as close to the theoretical limit as you can. Do you find that perhaps shaping how scientists conduct their projects? As opposed to the arts side where you are trying to keep it open and see what happens? Or do you find there is a mix within sciences?

SSE Interdisciplinary: Yeah I think there is a bit of a mix. But I think experiences, experience doing something is good if you are trying to get to a theoretical limit, knowing the limit is experience and knowing limitations helps, but everything as far as you know you can realistically get.

Karen: And do you find, this is a bigger question... (audio breakup 4seconds)… the theoretical limit can restrict your idea of what can been achieved in the sense that if you are experimenting in a completely free sense and you don't necessarily know what the limits are, do you feel that could arguably be more open for unexpected outcomes rather than if you have pre-planned everything in a theoretical sense before you then start that project in an experimental sense? It

would be interesting to know what impact that actually has on your project. And that's not to say that in the arts … you probably have a theoretical idea of what you think you could achieve.

DJCAD Academic 2: I mean not many people now can say they have blue sky research where they have unlimited funds, time and resources to do anything. I just can't see it unless you're Richard Branson or NASA perhaps (laughter) but I guess even they are bound by constraints. And everything is always to some degree finance, time, resource, so I guess you work and put in everything you can. I guess that's one of the things that can be quite nice to kick against because you know you've got a limit and its what you can do within the limits of that resource.

SSE Interdisciplinary: I think you can have a situation where something I suppose you can say is mature, if we take the amorphous silicon that went on in physics in the 70s and 80s, somebody getting involved now would say, 'Well its very mature now in terms of the limits and knowing what can be done to make solar panels, so anybody getting involved now would have to be aware of these limitations since they are not going to be able to take this much further, whereas back in the 70s it would be, 'there's so much we can do here.'

Karen: Yip, you can more of less take it in any direction you need.

SSE Technician 1: Some scientists have complained when they are applying for research funding: the money has been getting so tight. The way they were saying it, they would almost get told by potential funders, 'Well you tell us what the results will be, and then we will fund you to do the research.'

Karen: Oh my goodness! (general noise/bemused laughter)

SSE Technician 1: That's quite extreme but it's the way its going you know. Or that's what they said on the ground.

Karen: And [redacted] had mentioned as well that, I guess in the sciences when you are applying for funding you do need to have some sort of intended outcome that is a tangible, 'this is what we are doing with this funding.' There's so many elements that are restricting how open you can have a project in the first place.

DJCAD Academic 1: In the past there would have been scholars who would have been given these readerships or chairs and would have been employed purely to be the thinking. The person that was driving the thinking behind so then they wouldn't have to apply for a grant to do that because the freedom of the university would have allowed them to that- I don't think that happens now at all.

Karen: And do you feel like that would benefit interdisciplinary research to go back there?

DJCAD Academic 2: I think so if it actually happened! (laughter) But I think it would yeah.

SSE Interdisciplinary: What do you think changed?

DJCAD Academic 2: Financial pressure and resource pressure I think. I don't know but there's a feeling like you were saying if somebody's got the time to oversee where things can connect, it would be a very nice position to be in but it would enable that overview, but I think everybody now is locked into their areas because of pressures of time and resources and money.

Karen: Yeah, yip.

DJCAD Academic 2: But that's a political thing I guess rather than that idea of collaborative process in art and science but eh...

Karen: I guess it does all end up informing how these things operate into it... hmmm (thoughtful)

(Pause)

Karen: I'm just trying to check that we have been over all the topics … yeah so I guess within a project you have that sense of trying to manage the projects and also the expectations of whether its clients in industry, or for students it's their supervisors and funding bodies as well. How do you think that could be improved other than as you have mentioned about just being employed to just do research (laughter) and not have to apply for grants? That would be nice!

(Silence)

Karen: Well that's us towards the end, are there any other ideas and thoughts on the topic of interdisciplinary research in general?

DJCAD Academic 2: I think that what you are doing here is good, there's opportunities often not thought of in research in such a (inaudible word) too and taking more of that space so you are moving into these areas and then making them visible which I think is a great thing- you can do the connecting.

Karen: Yup and I think as well the way I have designed this exhibition, it's the fact that I am showing the process not just the final outcomes to help people realize that in research there are all those mistakes and those things that haven't gone to plan, and I guess trying to make it approachable for creative students to pass and see that there's someone who didn't do physics in school and now they are doing a PhD within physics and design, that its possible to do these sort of projects- that you can make them work. And also trying to encourage some of the physics students over to be like, 'Well actually creative designers and artists can really be an asset to, whether its outlining what your story is or helping make particular parts and components within the project that you are working on.' So yeah, I suppose I have been trying to expose the whole process so that people can better understand what it actually looks like.

DJCAD Academic 2: (Audio breakup: 3 seconds) … not today but in the past, I wonder whether this thing goes back to schools. You know conversations I've had in the past you would have to look to me like, when you were at school you had to choose between the creative avenue or a scientific, and it almost seems like you're not supposed to cross these things, whereas now I think people are beginning to say that these things need to inform each other, but certainly when I was at school you were forced down either groups.

SSE Interdisciplinary: I mean when I was at school I couldn't do physics and biology. I could do physics and chemistry or chemistry and biology but I wasn't allowed to do bio-physics. And in fact art as well, I couldn't really do art along with physics and technical. It just wasn't, I guess they didn't see how they could be linked which is probably why I grew up with less of an appreciation of art.

DJCAD Academic 2: I didn't do art. (laughter) I couldn't do art and biology, so I chose biology. And when I think back a bit, we did more drawing in biology … because I used to just like drawing. So I did design which was more like woodwork, metalwork design and then I could do biology which is what I wanted. So I don't know if things seem to have come back around really by accident.

Karen: And do you think stereotypes can end up being inevitably damaging for connecting different disciplines together or... just in the sense that I think when you mention physics to a lot of people its almost like they will just shut off, but why is that because its so much more interesting than I think..., or the same with art to a lot of scientific people, they will shut off the moment they think about conceptual art or fine art- its just something that they either don't understand or don't want to understand.

SSE Interdisciplinary: It used to be a conversation stopper with me y'know I'd be meeting somebody in a pub and they'd ask, 'oh what do you do?' and 'I'm doing a PhD in Physics' and they go, 'oh right okay.' and the other thing I can remember is when I was doing my undergraduate degree we had what must have been a PhD student and in our final year was a post-doc and he was wearing designer clothes, and I remember thinking oh that's not right – he's too trendy, he's cool. You always imagine physicists wearing tweed jackets and being a little eccentric! (Laughter)

Karen: Yeah it is so strange how peoples impressions of things can be different, because I think in one of the other interviews someone had touched on even just different perceptions of different practices in the sense that you've got a jeweller's blowtorch and some think, 'oh gosh that's really dangerous' but well if they are a chemist and are working with a Bunsen burner all the time, its effectively the same thing but used in a different way. Its just perceptions about how dangerous things can be or how difficult things can be to understand as well. It would be quite interesting to see how alleviating some of the stereotypes might improve the conversations that you can actually have across disciplines to break past that, 'oh you're learning physics.' and that's the end of the conversation.

SSE Interdisciplinary: I think one of the biggest things I've noticed in the last few years is the BBC, BBC Four, some of the documentaries that they put out: history, art, physics is the presenters seem to be much more … I don't know what the word is but... understandable and down to Earth and talking in plain English and they have a bit of a personality as well.

Karen: Yeah I guess with astronomy you've got Brian Cox who has done all his stuff where all of a sudden you can start to understand quite complex ideas. And for me I guess as a creative moving into physics, I've really benefited from actually having examples of things, like for example I'm learning some basic optics and, 'If you are looking in your bathroom mirror and you can see from your head to your belly button, if you walk back fifty yards what can you see?' and its like, 'you can see the exact same amount' and then you can start to understand why that is through the physics. And having those tangible, easy to understand, real life examples all of a sudden opens up science to people who need to learn in a non-textbook kind of sense. Though not to say that example couldn't be in a textbook, but in an equation sense. It's maybe that question of different approaches to teaching what art is and what science is and breaking past the tradition of maybe how these things are taught perhaps?

DJCAD Academic 2: I think as you said earlies, if you can capture someone's imagination and enthusiasm for something, if it's a kid and they just catch something then that might be with them forever, and be with them for the rest of their lives. I think whether its TV or university or school or an exhibition or something that you make and someone that picks it up and runs with it I guess that's all you can do. But I think if you can capture someone's imagination and interest in a way that accessible

SSE Technician 1: Brian Cox you mentioned but even before him Carl Sagan in science: a really great science communicator, good personality and great enthusiasm. Those types of people really do spark enthusiasm in the youngsters to follow a career in science and that's a great thing. Whether that addresses any stereotypes I don't know: they are the unusual ones in science I suppose in science really. They've got the skill to communicate really really well... I don't know what it's like in the art world.

SSE Interdisciplinary: I think some of the presenters on the art history programs are much more amenable like the em, like the historians as well, there is a generation of much better presenters who just don't have that stereotype image about them. And Brian Cox was a keyboard player in D-Ream was well which is a bit cool and a bit different! (laughter)

Karen: Could that even be about improving students or physicists communication skills then? I think one of the good things about being in art school: you work on your project – I guess for me anyway in silversmithing and jewellery- it was all very independent but then at the end of the project you have to present what you have been doing for the last two weeks and explain

that whole narrative to people, and I don't know if that's something that's done in physics at all? And is it something that students might benefit from to try and address that issue?

SSE Interdisciplinary: Well I think they have to do some sort of presentation don't they?

SSE Technician 1: Yeah...

SSE Interdisciplinary: Certainly in fourth year there are presentations where they need to give a twenty minute as part of their mark.

SSE Technician 1: Yeah I mean they had us making those videos of the work that they were doing half way through, probably better to do it halfway through than at the end isn't it, because you can make more connections that way I suppose.

SSE Interdisciplinary: I know the civil (civil engineering) students do it where some of them were involved with the V&A in various ways, this is probably more architecture where they stand up at the end and (inaudible word).

Karen: Okay, so is that maybe once or twice a year that they would communicate what you are doing? Because in the arts you are probably doing it easily once a month, or maybe twice a month.

SSE Technician 1: Oh right.

SSE Interdisciplinary: Yes I think it's less.

Karen: So should we do more?...

Karen: Its quite interesting the different approaches in delivering outcomes between ...

DJCAD Academic 2: It is a different thing in art, its difficult to speak in that language within in the art school. When I go to exhibitions I see what artists have written and I can't understand it and I've got three degrees in art (laughter) so I'm somebody who doesn't.... It's a whole different problem: there's a tendency to try to over-intellectualize things than what's necessary. It's getting the audience wrong. That to me is a problem with communication that needs to be considered, particularly from an arts perspective when it's supposed to be public.

Karen: Yeah, true, I guess it's that question of who you are trying to communicate with. Well I'm aware that we are coming up to half-past eleven so I will just stop the recording. Well thank you very very much for contributing.

End of recording

Time 1:07:57