Big Conversation: Risks - from the extraordinary to the everyday

KAREN: Hi, welcome back to "The Student Hub Live." This is the first of our big conversation discussions today. If you are new, this is where we basically get three academics, or a variety of academics, from different areas across the university, and we pick something that we think that people at home can really relate to.

We're going to be talking about risk, reality, and real life examples here today. So I've got a fabulous selection of guests, but hopefully this is something that you, too, can talk along with at home, ask us questions, and see what you think. But I'd like to welcome my panel, because I have Gemma Briggs from the Psychology department, Hazel Rymer from Science, and Kevin McConway, who is a statistician from MCT. So thank you very much for joining me today.

We've been researching some brilliant things. Gemma's doing a lot on psychology. Hazel's researching volcanoes. And Kevin, you're looking at concepts of risk, and how people and deal with probabilities of things happening. So this will be very, very interesting discussion. But first, let's go to the social media desk and see what everyone's talking about. And I hear you've had some more mail?

-Well, we've been chatting a lot about - they loved our rave in the library, but unfortunately they won't let us in the library anymore to do that. So I've been trying to convince Helen to give us the keys. Not working so far, so guys at home, if you can try and convince Helen with me, but -

[DING]

There we go. That's our mail sound. I always love mail. I think I'm still at that point where I'm still excited. I don't get too many bills, so let's have a look at what we got in here.

HELEN: Your spam filter seems to be working quite well.

HJ: I know, it's brilliant! It's part of the recent update. I'm hoping it will hold up, though, because that spam can be - it's quite notorious, isn't it? It's absolutely terrible, but let's have a look at what we've got here.

Oh, wow. That's from Eleanor, and she said she's a little bit of a book fiend, and she's got a book-shaped coffee table. That's quite neat, but that'll take her a while to get through all those. Dear me. Very dedicated to books.

But we've got another one via email. And it is a very neat desk. I'm still not seeing these messy study spaces. I know they're out there. I know it's not just me.

And we got a lovely one from Davin there as well. He's got all his OUSA goodies that he got from the Students Association.

KAREN: Oh, yes. He just had his delivery, didn't he? What's he got?

HJ: He's got lots of neat stuff. He's got pens. He's got a T-shirt as well. They do lovely hoodies as well, so that's lovely.

HELEN: And those of you who were in that chat yesterday, you will have seen quite a few photos of cats, basically. And we've got a photo here of a couple of lizards. This is Bert and Ernie. These are study buddies, Bert and Ernie.

And also we've got a nice selfie here. Mark from Suffolk, who's just starting a Social Sciences course. So thanks very much, Mark, for sending that selfie in.

KAREN: Wonderful, thank you. We do like pets. And Dee, maybe you should think about getting a pet that doesn't bring in mice. So lovely. Do keep sending us your pictures, and we also have our story about loving part-time today, so let us know why you love part-time. Risk, reality, and real life examples. What are we going to talk about?

Kevin, this idea - I wanted to start by thinking - we often think about massive things happening to us. And yet we know from Psychology that we're more likely to make errors and biases that we are to have something huge happen. How do we deal with this idea of risk, conceptually? And how do you research it?

KEVIN: Well, it really is kind of tricky. And part of the trickiness - this is going to sound terribly academic, what academics always do is they start worrying about how you define something. And the trouble with risk is actually there's all sorts of different meanings for it out there. And if you look in the dictionary, there's five different meanings in there.

It seems to be that what's in it, though - we're talking about some bad thing that might happen, and there's this concept in most of these definitions is it's usually bad, or not very good, at any rate. But you don't know that it'll certainly happen. So that means there's two aspects.

You have to kind of think about it how can you measure how bad it's likely to be. That's on one side, and the other side there's how do you measure how likely it can be. I'm a statistician, and statisticians - statistics is really about uncertainty, and measuring uncertainty, putting a handle on uncertainty, dealing with uncertain situations in different ways. So that deals with the uncertain side of risk. I have to say it's more complicated than that. If you talk to people, say, in insurance or finance, they talk about this share being a good risk, or this person being a good risk for insurance or something like that. And again, that's kind of strange, because I said risk's about bad stuff, so how could there be a good risk? It's complicated.

But anyway, I'm a statistician, so I'm probably more interested in the side of about measuring how likely things are. As I guess most people probably know, there's a way of doing that. It's called probability, and what you do is you write down what might happen, and here's a thing that might happen. A volcano might erupt. I might be run over when I'm crossing the road or whatever it is.

And somehow - this isn't always easy - you give a number to that. The number somewhere between nought and one, or you could say between no per cent and 100 per cent, depending on how you do it. Nought means it's just not going to happen. It's impossible. And one, or 100 per cent, means it's certain to happen, and everything else is somewhere in between. So

at one level that sounds all right, that sounds fair enough. But the question is if it's not nought, and it's not one, how do you know what it is? And again, that all depends on the context.

So in some areas you can kind of work it out. And in some areas you can kind of measure it. You can say this is - lots of people cross the road every day. Let's just see how many of them actually did get run over, and we can work out, or get an estimate, the probability of being run over when you're crossing the road from that. But we've also got to deal with things which may never have happened, or have only rarely happened. So a nuclear power station blowing up, or a volcanic eruption in a part of the world where there hasn't been one, or a small part of the world where there hasn't been one recently or something, in which case it's much more complicated. And there are different ways of getting at it, and all of them may not be terribly accurate. So that's a kind of issue in dealing with probability.

There are psychological aspects of it, which can really be quite important, but there are also mathematical aspects. The other thing is that people don't always find probability very intuitively easy to come to grips with. It's a kind of standard thing, if you're learning about probability, to be exposed to questions that have got an answer to do with probability, which just doesn't seem right, when you think about it at first.

One of these is 'the birthday problem', as it's called. The way this goes is here I'm sitting on this couch with Hazel, and have I got the same birthday as Hazel? That's not going to be all that likely. Roughly speaking, there's one chance in 365 we've got the same birthday. But actually there's four of us on the couch, so what's the chance that at least two of us have got a birthday in common? And you can work that out.

But the question that people ask is how many people do you have to get on the couch before it's as likely as not that there's a birthday in common? And you start thinking about this. Most people think it would be an absolutely enormous couch, but actually it turns out not to be that big. It turns out to be 23. If there's 23 people, roughly as likely as not that they have a birthday in common. And the kind of thing that's going on there is you have to think about it there's only a one in 365 chance that Hazel and I have got the same birthday, but when you put more people in the room, it starts getting more complicated.

So there's four of us here, so there's actually six different pairs you can look at. So the number of people has doubled, but the number of pairs has gone up much more than that. And the number of pairs goes up really quickly, so that by the time you've got 23 people in the room, there's over 250 different pairs. And so the fact that it's quite likely that one of those pairs have got the same birthday. You can kind of see where that works, but you've got to think about it a bit more deeply to get at that, and there are lots of things like that to do with probability that kind of make it difficult.

KAREN: I bet our online audience are comparing birthdays and seeing who's got who in common, because there's a lot more of you out there than there are here. I noticed you both - Gemma and Hazel - nodding vigorously when we were talking about importance of probability. This is something that comes up in Social Science and Science, the fundamental basis of any form of experimentation. We're sort of bound by this whole idea of probability, and it's really important a researcher can throw it out the window.

And it is a concept, I think that they can cause a lot of anxiety for students in terms of how we teach that. Statistics inevitably will become part of studying the Social Sciences, and certainly in Sciences as well. Can you say a little bit about how you guys deal with that idea of probability in some of the work you're doing?

GEMMA: It's using real life examples, just as Kevin has done, which I think brings it home to people. So for a start, you've got to understand why you need to get this, and why you need to be able to understand probabilities correctly, and to interpret them correctly. So I think that's a huge amount of the battle, actually, is understanding why you've got to put in the work, and you've just got to learn this stuff. And it is going beyond the intuitive, as I think Kevin's demonstrated really obviously there.

It's not immediately what you think, and that brings us back into all of it the stuff that Kevin was talking about before, in terms of you think that something is really likely or not. And that's just not really the case when you do the maths. And it's not horrendously difficult, it really isn't, but you've got to do it, you've got to do it right.

But the trick that we used in Science, Maths, and I'm sure in the other faculties as well, is that you demonstrate why you need to know, because we don't need to know this stuff just because it's there. We need to know because it's useful, and we use it in our everyday lives.

KAREN: And Gemma, from a Psychology side of things, how are you dealing with probabilities? We teach our students this very early on.

GEMMA: Yeah, absolutely. It's learning your discipline's conventions as well, and what's an acceptable level of probability. So the methods teaching can be quite scary for students, but there's a lot of support to guide them through that process. But within Psychology, we allow a 5 per cent room for error. So we carry out these different statistical analyses and other types of analyses in order to identify if the effect that we've found has a significant difference, if it's likely to apply to a broader population.

So on the surface it might seem like there's lots of scary maths involved in your Psychology degree, for example, and you think, I've signed up for Psychology, not Maths or Statistics. But actually it's really important, because we can't generalise results if we don't have that kind of statistical backing.

KAREN: Thank you very much. I'd like to go to the social media desk, because we've all been comparing birthdays, and I'm hoping that we can find an answer and see whether we have any matching pairs out there.

HJ: There seems to be a few people that have, say, months. Apparently October 7th is a very popular day for people to be around, but -

GEMMA: That's close to mine.

HJ: On risk and probability, Davin says it's a big risk having cake in the cupboard when you're a student, which I think we can agree on. And Tabatha, I think, is very psyched for this, actually, because all we got was, "I really love stats!"

KEVIN: Yeah!

KAREN: Lovely, excellent. Well that was brilliant. Well, we do love stats, but we also have some very interesting things to talk about, because the whole premise of this conversation as well is thinking about risks. So whilst we've got these concepts of risks, these probabilities of how likely things are to happen, we also have some real risks. Hazel, you're coming on for a show and tell in a minute to tell us about some of the work you do, but can you talk to us about some of your risks in Science and for you're researching?

GEMMA: Well, I'm a volcanologist, which means that I study volcanoes, and so I'm very interested in working out better ways to predict eruptions. And there's a certain amount of statistics, and another things come into that, of course, and we can talk about risks there. Just picking up on something that Kevin said about scientists love to define things, and so what is a volcano? Everybody thinks they know what a volcano is. A pointy peak thing with a bit of snow on the top, maybe, but that's just one definition of a volcano, and actually it's not quite the right one.

Do we mean a little hole with some gas coming out of it that's a few centimetres across? Do we mean a big, bubbling mud pool? Do we mean a pointy peak thing somewhere in the Andes? Or one of these enormous calderas in the Galapagos, for example? Absolutely enormous. And some in Iceland that are many, many kilometres across. All of those are volcanoes.

What is an eruption? I could go on forever about that, because it's not as obvious as you might think. If you see rivers of red stuff coming out, that's lava. But if you see that, you'd say that that was an eruption. But is continuous gas coming out - is that an eruption? We tend to talk about it if there's a change in activity, or a change in signal. Sometimes it's only something that we can measure. You don't actually see it, but you measure it with instruments. Sometimes we would talk about that as being a change in activity, and therefore moving towards an eruption. So it's all about definitions, actually.

KAREN: I'm going to come to you in a minute, Gemma, to talk about some other things from your side of things, because you're investigating, I guess, things from a psychological side. But Kevin, just before we do that, I just wanted to talk to you about this trade off, this idea about weighing up these probabilities, about how likely these things are to happen.

KEVIN: I find this very interesting. And it's actually interesting to me in part because some of it is to do is mathematical aspects, but actually more of it's to do with the psychology, to be honest. So I said earlier on that you're thinking of some risky thing that might or might not happen, and there's two aspects as how likely it is, and there's how bad it is.

So you just need worry about the probability if you're comparing two things that the kind of equally bad, like risk of death or something. You may not be bothered about how the death occurs, to be gloomy for a moment. In the end you're dead. But kind of moving on to other things, very often you're trying to decide what should happen, and there may be a not so bad consequence that's quite likely to occur, and another consequence, which is worse but less likely to occur. And you kind of set things up so that the bad one, the really bad one, is really sort of got out the picture at the risk of the other one being worse. Or do you do it the other way around?

People in engineering do an awful lot of calculations of this nature, and there are kind of formal ways in which you should be done, according to theory. But in practise, people don't

always intuitively think like that. One example I sort of like quoting on that is, again, one that's a bit gloomy. It's to do with 9/11, and it's to do some calculations that a psychologist actually did after 9/11 - about a year after 9/11.

He was talking about road deaths, deaths in car accidents. And he worked out that, in America, over a year after 9/11, there were about 1,600 extra deaths on the road because of 9/11. You think, how could that be? It was planes crashing into buildings, so what's that got to do with road crashes? But what it is is that people were discouraged from flying because of what happened to those flights, so instead they got in their cars. And getting in their cars is - it's much riskier to travel by car than it is to travel in a plane for a given distance. And therefore, he estimated - and we can pick holes in the to estimate - that there were these 1,600 extra deaths, which is not all that fewer than actually died in the towers.

KAREN: I wanted to ask you this, because Kevin's been saying - everyone says, oh, blah, blah, blah, blah. But you're more likely to get run over by a bus. And so this idea of probability, Kevin, I'd just like to wonder if you could conclude with something finally about that. How useful is that? How useful is it to say, putting it into this sort of context, you're more likely to be killed by this than this?

KEVIN: On a personal level, it perhaps gives you some idea of what you should - we can't think about everything all the time. So it gives you some idea of what you might want to concentrate on, what is an important risk in your life that you should really take some care about, and what - while something bad might happen, it's really not very likely and you shouldn't worry about it. So that's on the personal level. But on the level of society and making decisions, and this goes into politics, it goes into engineering, it goes into all sorts of areas, is how do we set up a system such that the overall risk has been dealt with appropriately?

By engineering, you can make things safer, but you can never get the risk out of it altogether. And there's always this question of how we trade off different risks, and those are kind of personal decisions. They depend on - they may be different in different societies, different for different people. And so there's a kind of interplay between the engineering aspects, the mathematical aspects, the political aspects, and the preference aspects across society, which is why I find it fascinating. There's so much of it.

KAREN: Well, we've got a big question on the social media desk. So HJ and Helen, can we come to you?

HJ: It's very interesting thoughts about risk. And while there are some things that are very unlikely to happen to us, and low probability of happening to us, we still worry about them quite a lot. It'd be interesting to maybe have some insight from a psychological perspective of why that actually might be, why we worry so much about these little things that probably will never happen. And by the way, Davin thinks that - no, it's Barry that thinks that it must be such a cool job to be a volcanologist.

HAZEL: It is cool. Come and join me! We need more volcanologists.

KAREN: Gemma, would you like to feed back in terms of why we're so worried about risk, and what we can do?

GEMMA: Well, in terms of the psychological input to that, we have certain cognitive biases that help us to make decisions. Coming to a bigger, less likely to happen thing in a second, what we tend to do is we want to make decisions relatively quickly, if we can. And what we tend to do is rely on our experience and our expectations, and how quickly and available to us are examples, in our mind or around us, about whatever situation we're in. And if we can come up with lots of examples that are similar to that situation, then we're more likely to make a quicker decision and a snap judgement. Might not necessarily be the best decision, or the best judgement, but what we like to do is reduce our overall level of cognitive workload - what we're having to deal with in our mind at any one time.

In terms of things that are far less likely to happen, again, these things - catastrophic events such as volcanoes exploding, to take a purely random example. The Twin Towers, things like this. Obviously catastrophic events are made hugely available to us by the media, and therefore we get the sense that these things are more likely to occur, because they're reported at such great frequency. So although they're highly unlikely to happen to us as an individual, all that information is surrounding us, and that feeds into our cognitive biases and our way of thinking about given situations.

KAREN: You talked about the media, and I can't remember the name that film. Hazel, you'll probably have watched it with horror, but do you remember that film about the volcanoes erupting and going over - it was ages ago, but I remember watching it, thinking -

GEMMA: It was called "Volcano."

KAREN: Yeah, something profound. I'm sure our audience will know what that film was. Everyone running around. They're so salacious, some of these ideas, and yet so unlikely to happen. You're investigating risk very scientifically from that sort of basis. Can you say how you feel about that idea about people being very interested and engaged in something that isn't so likely to happen, and how you deal with all of that? As you said, these eruptions aren't always as glamorous as we might like.

GEMMA: Well, people love volcanoes, and I think it's great to there are films about it, and I did like "Dante's Peak" with Piece Brosnan in it. That was a good one. And I really wanted a computer programme like his, because they with sort of typing away in the volcano centre. And after a while, all the data was going in, and eventually it went, erupt, erupt, on the screen. I need that software!

KAREN: In an app.

GEMMA: In a little app, yeah. Erupt? OK, yep, I can see. So generally, the better aware people are, the better. About everything, really. So of course people need to know more and understand more.

Sometimes films like "Dante's Peak" and "Volcano" and things don't really help, because they put in some really silly things that aren't true. In the particular case of those, the real thing that many of us noted in particular was it was sort of all volcanoes thrown into one, in one day, which is not going to happen. But some of the concepts are very helpful. And I think generally just making people more aware of hazards in particular, and just our natural world, has got to be a good thing.

KAREN: So what do you do, then, when you identify a risk? Erupt, erupt, go! With a megaphone?

GEMMA: No. That's an interesting one, because from an academic point of view, what our role is to do is to identify better ways in which to monitor volcanoes. It's not our job here at the Open University to monitor all of volcanoes of the world. That would be so cool, obviously. But you have people on the ground and the various volcano observatories who are doing that.

But what we can do from an academic point of view is to look at the broad sweep of data that are being collected at lots of different volcanoes and, of course, collect our own, which is the really good bit of this, and bring it all together. And to say, actually, if you look at this, and you look at that together, then you've got a better chance of being able to predict an eruption, rather than if you just look at a particular one. So you understand a lot more about volcanology in general by using a bigger collection of data, which is something that you have the privilege of being able to do, from an academic point of view, where you wouldn't if you're in the front line on a volcano observatory. But it's the guys and gals at the volcano observatories who are working with the local civil defence people who would actually be saying, erupt, erupt, or evacuate, evacuate. We're not going to do that from Milton Keynes.

KAREN: I'd like to bring this back to the idea - whist we've got these volcanoes, we've also got this idea of being run over by a bus. And we know from a psychological perspective that there are so many more things to worry about, and I wanted to talk to you a bit about this, because there are some amazing things on change blindness and attention that we investigate. Look but fail to see accidents. I ride a motorbike, and so I'm constantly thinking they have these Think Bike, and you think, do these things make a difference? How do we research things that can then come into play so that we can help the everyday population? Can you tell us about some of the things that psychology can add?

HAZEL: One of my areas of research is into mobile phone use and driving, and so it ties into these look but failed to see errors. So this is an everyday risk that lots of people take. I consider a risk. Other people might not. So by law we're allowed to drive our car and talk hands-free on our phone. And therefore, the assumption by many is that that's a safe activity to carry out, but research would suggest that's not actually the case.

So what I find particularly interesting about that comes back to what we were talking about in terms of cognitive workload. So if you try and do two things at once, generally speaking, we can do that pretty well. We can switch between two tasks. We can shift our attention. But if we reach a certain level of cognitive workload that's just too challenging for us, then our performance can deteriorate.

So when we're driving, if we're talking on the phone, we might have longer reaction times. We might not notice things. But more interestingly for me is that our research, and many other researchers, have demonstrated that you can look at something directly ahead of you, but not see it. And by that we mean you've not perceived it. So we've done a particular study where we've tracked our participants' eye movements while they've driven a simulator and they've had a conversation. And we can demonstrate from an eye tracker that they've looked straight at that traffic light changing to red, or the child stepping into the road, but they don't react because they're distracted. Their attention is elsewhere. And afterwards, they claim not to have scene whatever that hazard was.

So I find that really interesting, that a simple task of just diverting your attention to something else can affect your performance of that primary task. When we're talking about driving a couple of tonnes of metal at 80 miles - 70 miles an hour down the motorway, then and it's quite a considerable risk.

KAREN: This is why the and ambulances and police cars and all these sorts of vehicles have all these chevrons, isn't it? Because they found that people crashing into them, because you expect to see a moving car, and then all of a sudden when one's static you're paying attention to many other things that we don't have the processing, do we? To be able to factor them all in at the same time.

Tell me both, then, I guess from an everyday perspective, what are some of the things that you think are really interesting in terms of this idea of how we perceive risk? I guess maybe things that you have or haven't noticed. We've talked about cycling, motorcycles, this sort of thing. Are there any things that you can think about that you think our audience might be interested in seeing how we research? Because like you say, Gemma, we're picking up these everyday things like texting on mobile phones. We're researching it, doing these things in simulators, feeding that and changing policies, actually doing something really, really meaningful. But yet it all starts at this very base level where we say, actually, I've noticed that we swerve when we're driving mobile phones. What's some of the things that you guys think about from that side of things?

HAZEL: So in terms of the applications of this inattention blindness, or looking and not seeing, there's loads of different applications. So it's not just driving. Witnesses to crimes. If there's a weapon present during a crime, is their attention drawn to that weapon, and therefore they can't identify a culprit? So from everyday examples, walking down the street, there's clear links between what psychological research can investigate and how we can move on and ideally change policy, and ideally change practise. It doesn't always happen, but that's the idea behind it.

KAREN: No indeed. Let's pop over to HJ and Helen and see what you guys have been talking about.

HELEN: Well, there's a lot of discussion on and risk and probability. And Curtis was saying that he did once get some Bertie Bott's Every Flavour Beans from - you know, the "Harry Potter" themed jelly beans, and he said he had a vomit flavoured one. And I was thinking that if the probability of me getting a vomit flavoured jelly bean if I put my hand in the jar there, I wouldn't take that risk, to be honest.

HJ: In the chat, we're also really psyched to have a volcanologist here. Sara said she's been on a few volcanoes, so we'd love to hear what ones they were and what that was like. But we'd also like to know if there are any specific tools you use as a volcanologist when conducting your fieldwork to analyse risk, or scientists in general when conducting fieldwork?

KAREN: It's funny they should say that, isn't it? Has someone been reading the programme?

GEMMA: Depends what sort of volcanologist you are. And this goes back to definitions. There are lots and lots of different toys that we take, and I've brought some that I'll share in a bit. But they're the ones that I use. Other people I don't think have half as much fun, because they sit behind their computers and operate, and you sort of take pictures from satellites and

so on. And you can actually do your volcanology from home or from the office here. So all sorts different ones.

HJ: Take them out later and see what you've got to show us.

KAREN: We will indeed.

HJ: A really interesting comment, actually, from Natasha. She says about how the media influences everybody's thoughts and awareness of everything, and how that can change our perception of risk. So we - talking about yesterday as well, the migrant crisis, and how that could be-- because the way media sets it up, how that, to some people, is being viewed as a risk, whereas it might be more of a social problem. So I think that's a really interesting perspective to think about as well.

KAREN: Would you like to say something on biases and that sort of -

HAZEL: We like to take these shortcuts. We also like to assume that things should be more random than they actually are. So if you toss a coin 10 times in the row, we'd find it very strange if we got 10 heads come up, and we'd think there's something strange there.

An example that we used to use in undergraduate psychology lectures was pick which row of numbers you'd like to play on the national lottery. And you'd get the numbers 1, 2, 3, 4, 5, and 6, and then one that was 10, 20, 30, 40, whatever, and then one that seemed entirely random. And the vast majority of the time, students would pick - anyone, not just students, would pick - the one that seems the most m because it's far more likely. Well actually, each number's got a one in - is it 42? Chance of coming up. So we both tend to look for patterns where there aren't patterns, and assume that there's more randomness around us than there actually is.

And say all of those things come into play whether we know it or not when we have to make a judgement or a decision.

KAREN: I'd like to ask you both - because we're researching areas, and you're both actively doing so. And Hazel, you're going to come and show us some of your tools in a minute that you use, so we're going to leave that section alone. But I wanted to ask you, aside from all of these interesting things, as researchers, as academics at the university, what do you both enjoy doing most in terms of your research? Because there's obviously these various statistics to write up, and various processes, and funding forms, and ethics procedures, and all these other sorts of things involved with research. What gets you both going in terms of what you're doing right now?

GEMMA: Should I go first?

KAREN: Yeah.

GEMMA: Well, fieldwork. I just love going out and making the measurements, and the way that I do that involves citizen scientists. That is people, students, any people coming out and helping, making these measurements. So sharing the ability to go and engage with the ground and make the measurements is what I really, really love, and just being out there.

One of the things I just love about studying volcanoes is that whatever you do, however well you understand them, and however well you can get to a position where you might be able to predict and mitigate some of the effects, you can't turn them off. There's nothing we can do to actually prevent an eruption. Mitigate some of the effects, maybe, but you can't actually do anything about it.

And in this day and age, when there's so much that - at least we think - we'll come on to that - that we think we can affect and influence, that's one bit of nature that we can't.

KAREN: And another thing we can't affect is time marching on, and I'm really looking forward to seeing what you've got, Hazel, after the break. But Gemma, can you tell us what you enjoy most, before we end the Session

HAZEL: It depends on the study. If it's a driving study, I really enjoy being in the lab and seeing what participants do, because they can be really quite surprising at times. If it's an online study, that's not quite so exciting at the data collection stage, but I really enjoy clicking those buttons, doing those analyses, and finding out exactly what it is we found.

KAREN: So being active, I guess, is the common theme here? Both of you really enjoy going out and doing the research and seeing how you can do that. And Angela says that she once went to a volcano, and there was a high risk of stinkiness. So we'll ask Hazel about that later and what they smell like. We've been talking about how library books smell. We have to short video clip coming up while Hazel gets all her props for the show and tell section, and we'll be looking at that in about five minutes. So we'll see you right back after this break.