Respondent 17 Interview

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**SUMMARY KEYWORDS**

plant, change, students, wide range, department, science, question, talk, module, year, transform, work, microscope, level, communities, lectures, curriculum, excite, biological sciences, systems

**SPEAKERS**

Megan Roberts, Respondent 17

**Megan Roberts 00:01**

Okay, wonderful. Um, can you please start by stating your area of expertise?

**Respondent 17 00:18**

My expertise falls in quite a broad range. I'm particularly interested in plant community ecology, how different species, plant species interact with each other. And what forms that particular community. And because I'm interested in the community, I'm interested in, in it from a broad ecological perspective. So, I look at everything from how animals affect communities, all the way down to the insects to soil microbial activity. So, it's a wide range.

**Megan Roberts 01:04**

Okay, thank you. So, my first question to you is, is plant blindness or a lack of interest in plants a problem in your institution?

**Respondent 17 01:22**

I don't believe it is, I think that the students that come into the department have a wide range of interests, and it's up to us to introduce that. So, it's at the first the level that this happens, so you have to get them at the first-year level, you have to excite them at the first-year level. And you have to get your best teachers in at the first-year level. If you want to excite them about plants, they know nothing. They don't know what they're excited by, you've got to excite them. And so, it's really, I've never had a problem with exciting people about plants. And I think of the plant people in my department, and they all seem to have sufficient people as students. I don't think we have a problem. But it's because I think we look at that first-year level.

**Megan Roberts 02:27**

Okay, um, my next question, do you have issues getting students to enroll for your plant science degrees?

**Respondent 17 02:42**

Yeah, so again, the, the perception is that students do not want to register for Biological Sciences in general. So, it's not just plant sciences, I think it's this perception, that is broadly biological sciences. I'm not sure that perception is real. And this year, we have in biological science, 280 students registered at the first-year level. And this is a wide range of students. And yes, a lot of them, are they because they have to get medicine or they want to get a vet, or they want to go somewhere else. Yes, that is true. They want to go back to microbiology; whatever it is they want to go to. That is indeed true. But really, if we actually interest and excite them, they will move to the secondary level, they will move to the third level. So yes, there's a perception that the second and third year they will we don't have enough students, but I think we have to work harder at it.

**Megan Roberts 04:03**

Would you say that in comparison to subjects like zoology or conservation along that line? Are there less students in plant science modules than in those modules? Do you know?

**Respondent 17 04:23**

I think it’s more or less about the same. So, you have more or less, I mean... Okay, for my module at the honors level, I have... Yeah, I would say it's more or less, the higher number of students so we get 10 students or get between six and ten students every year in my module. And that seems to be an average, the more charismatic plant people tend to get.... So, our top plant person is the guy called William Bond. And he's one of the top plant people in the world. And William gets more than anybody else. But that's because William is charismatic is one of the top people in the world. And he is a damn good lecturer. So, yeah, I don't think there is any difference. Okay, do people, animals or plants? I think I go into both.

**Megan Roberts 05:50**

Okay, thank you. My next question. Do you think a first-year plant science module should have a narrow approach covering a few concepts in detail, or a broad approach touching on multiple concepts within the field?

**Respondent 17 06:11**

Run that past me again, didn't quite catch the first part.

**Megan Roberts 06:15**

Do you think that a first-year plant science module should have a narrow approach covering a few concepts in detail, or a broad approach touching on multiple concepts within the field?

**Respondent 17 06:32**

Yeah, so I, up to last year was running the first-year module. And I felt quite strongly that we should have a wide range of subjects that showcase the broad range that our department offers. So, we covered everything from insects all the way through to carnivores, it was a wide range of including plants. So, there were six different lectures who lectured on it, six or seven I forget the number. But the six or seven different lecturers, all of whom actually had a specific role to play, and it was wide range. And I think it's important to have a wide range to showcase what the department has to offer. If you're going to move into the next phase of the department, then you can't you can't expect students to know what is in the department. You have to tell them what's there. And if you want them at a second-year level in plants, then you have to have plants there. And you have to have a number of different aspects of plants, you can't have just one aspect of plants you have to try...we what we do is we go from, from the evolution of plants all the way up through to higher plants and how they work. So, at the first level, so it's easy, you have to showcase everything referred.

**Megan Roberts 08:24**

Okay, um, my next question, do you have the questions in front of you that I sent you?

**Respondent 17 08:35**

No, I'm afraid I don’t.

**Megan Roberts 08:36**

Okay, that's fine.

**Respondent 17 08:37**

I'm terrible at this kind of thing. Sorry.

**Megan Roberts 08:39**

That's okay. It's not a problem. I'm just going to post the next question in the chat, just so that it's a little bit easier to see, but I won't read it out to you. So, which of the following concepts Do you think should be incorporated into a first year of plant science module? evolution, pathways and transformations of energy and matter, information flow exchange and storage structure and function or systems?

**Respondent 17 09:18**

You know, that the students really, really like the evolution aspect. I think that that's a given. I mean, like you have to have to have that in. The others.... Yeah, for me. We do structure and function quite a lot and I like systems and structure and function. Pathways and transformation in energy and matter, I'm not sure. And information flow I'm not sure but structure and function and systems I would be quiet, I would go for. I like systems because in our country has a diverse variety of different systems to show case the differences across the country so that people understand that we live in a diverse country with diverse systems that work within the country and the different types of plant systems within their country. And so, I would, I would juxtapose that with Europe that has very few. And I'd say, look, how privileged, you are to live in this country, so wonderful it has all of this. So that's why I like the systems aspect, and then structure and function that’s because I just like structure and function. It's like, the system's flow into structure and function as far as I'm concerned. So that does work together.

**Megan Roberts 11:12**

Okay. So those would be your top two, then structure and function and systems.

**Respondent 17 11:22**

After the evolution. Yes.

**Megan Roberts 11:25**

Okay, then my next question, I'm also going to post the options in the chat. Okay, which of the following competence competencies Do you think should be incorporated into a first-year plant science module, the process of science, the interdisciplinary nature of science, integration of science with society, communication, collaboration, understanding and interpreting data and quantitative competency?

**Respondent 17 12:10**

So, I think that you shouldn't get too complicated at the first-year level. And a lot of this is adding complexity that should actually be in the second year, at second- and third-year level, what you're trying to do at the first level is exciting, we get them interested, and you grab them at the second- and third-year level with this stuff. So, a lot of this, I think, is going to be considered very boring to the first-year student that you try to excite into biological sciences. And talking about interdisciplinary nature of science, you know, it's really in the process of science, this is philosophy of science that I don't really know if, if I will be interested or excited about putting it into first year module. And so, all of this stuff, to be quite honest with you, I'd be not very excited about putting into first year course. They want to know about how, you know, the world forms, they're not interested in communication and collaboration. And that science. You're trying to get them into science. Get them later with that stuff. Sorry, I'm not going to pick out any of those. I don't think any of them should be there.

**Megan Roberts 13:59**

That's perfect. It is your opinion that I'm looking for after all. Okay, I'm right. Did you read the information leaflet that I sent you? Okay, have you? Okay, that's fine. The vision and change that I was talking about the concepts that we're using to try and transform our plant science module. Do you think it's a good way to approach doing this?

**Respondent 17 14:48**

I'd have to read through it again to comment on that, as I said, I didn't think I thought about it too much just read through but didn't think too much about it. I could look it up and make another comment. But sorry.

**Megan Roberts 15:08**

No, that's fine. Okay, then my next question, what do you think the barriers to changing a first-year curriculum will be?

**Respondent 17 15:28**

That the other members of staff who refused to actually change their lectures, That, to me is the biggest barrier. What you need is some young people in there to change things you need; you need new thinking you need new processing. And the biggest barrier really is "But I've been teaching that for 10 years, why should I change?" And that I hear all the time, "no, I don't want to do that." Why not? I think it's important that we actually integrate more on this. "No, because I've been doing that for whatever." And so that's the biggest barrier, getting people to actually accept that they need to change. And, man, that is so hard. I've fought this time and time and time again. And I can see what needs to be changed, I can see the changes necessary but I can’t change it because people not change. And then they will go and say, we need a meeting to discuss it, you can't arbitrarily decide. And then in a meeting, it goes around and round and round in circles. And I hate meetings anyway. And I think that the most useless things around. They all go around in circles, and then come up with an answer, and they all go "Okay, I'm going to teach the same stuff I was teaching last year". And you know, they need to change. So, yeah, it's just people is the problem.

**Megan Roberts 17:10**

Do you have any suggestions as to how we might be able to overcome this?

**Respondent 17 17:20**

Well, yeah, so the idea is that you have to, you have to get everybody on board with what you intend on changing. So, you have to have one bloody meeting after the other. So, you have to say "What we need is a change in the curriculum. It's not that we need to change the curriculum. I mean, like we, we had this discussion in our department, or decided yes, we needed to change the curriculum, and they fought about it for a while. And this year, we still doing the same curriculum with no change. And we all know what we want to change. But it's, it's because you need the meeting, you need a series of meetings, and you need a general consensus. So, what I would do really, is get a core group of people who can pull it through. Because if you actually rely on one person to do it, it's not going to work. You need three or four people who are committed to making the change, who all agree on what the change is. And then you need to go into a meeting with the rest of the department and just bulldoze it through. And it's the only way it's going to happen.

**Megan Roberts 18:47**

Okay, my next question, you might have the same answer as this question. But what kind of resistance would you foresee would lecturers specifically have with this change being introduced?

**Respondent 17 19:04**

I think, lecturers who have been doing it for years and years and "Why should I change now?" And I inherited this from so and so and it seemed that worked for him. So why should I change it? And they don’t realize that we have to change things. You know, if you want to pull more students in, you have to think what you're doing wrong, and actually get a change, and the change happens at the first-year level. That's where it is. And so yeah. I hope you haven't got too many. You guys don't have too many old people, there. So, it's the older guys that you need to... actually, now that I think about it some of the younger guys to. I don’t know.

**Megan Roberts 20:02**

Okay, what could potentially be a good selling angle for us to motivate people to be willing to take part in the change?

**Respondent 17 20:15**

Transformation. We've got to transform, we got to move with the times and your university is good at this, your university is very good. It's you guys much better than we are. We got to fit into Africa, we can show which lectures should showcase Africa, and particularly South Africa, we have to actually change and we have to transform, it's important to and start by saying things like, all of you guys talk about summer and winter, you tell me if we have summer and winter, in this country, you tell me you're in Pretoria with a big summer, winter, autumn and spring, that's a colonial thing and you all sitting on it. Let’s move away from colonialization. Let's transform, we have a wet and a dry season finished. We have to start moving towards a South Africa that's more uniform. That's the only way, transformation, decolonialization. And I believe that it's about bloody time decolonized our curricula and we have to transform our curriculum. And that's how you better sell it. And you say you guys are sitting on untransformed curricular that needs to change.

**Megan Roberts 21:40**

I like that. That's a very good answer. My next question, how important do you think hands on practical sessions are for first year Plant Sciences?

**Respondent 17 21:55**

Critical. absolutely critical. I mean, you see the joy on average students face when that gets us thinking. It's like, wow, I did that? And look, I mean, they love it. They love getting their hands dirty you have to have practical sessions absolutely have to. And that's how they learn. I mean, they try and cheat with a microscope, by using the mobile phones. And I'm amazed how they do that. And I think that's great that they do, because I can’t get my mobile phone to take a photo through the lens of the thing. And then they draw it from the photo they’ve taken. Brilliant. They did that. I mean, like, they work that out to do that. They still using the microscope. I don't care if they're cheating that way. And they supposed to focus a microscope and draw from the microscope, whatever. That's how they do it. That's how they do it. I actually, and they love it, I mean, that they really do enjoy working with things. So, hands on practical’s are not expendable.

**Megan Roberts 23:13**

Okay, do you have any suggestions as to skills that you think are particularly important that we should add into a practical curriculum?

**Respondent 17 23:32**

No, not particularly. I think that pracs are pracs, there have to. this is something else. The pracs have to be part of what you're lecturing. So, if you if, if you're lecturing about plants and the pracs are on plants, and they have to actually see the different plants you're talking about, if the prac is on some plants soil interactions, then the prac is going to be on plant soil interactions. And I try and make those kind of clear, don't have arbitrary places that are unrelated to your lectures, because that's not the point. They have to see the real update in front. And so, you know, I actually on a first-year level my lectures on how communities work. Talking about the different communities, different systems across South Africa. And I take them out the back door, and I take them in the field at the back and show them how these different community’s work. And a lot of them and it’s amazing how many students have actually not walked through a field before. They have not worked in the bush at all. And I said, no, no, don't stand on the path. Get in there and go oh, they might be snakes and things in there. And again, you know, this is a great experience. As we talk about different trees and so forth, we talked about the city trees and talk about evergreen trees. What kind of tree is that they don't know, they have no idea what kind of tree it is I say, that's your national tree? That's a yellow wood tree, the National tree of South Africa and they all go oh wow. And it's, it's, you know, you, you can actually show them how to talk about it. They love it. So, you have to, you have to get them. I mean, man is the only practice that actually takes them outside. And we need to do this every day for five days. It's the same prac over and over again, gets a bit tedious. But again, we don't we don't fob it off to the demonstrators. The actual lecturer is there with them in the field. Yeah. And so that's another thing, don't drop it off to demonstrators. You've got to be there the lecturer is got to be because you're trying to get the kids enthusiastic about things.

**Megan Roberts 26:24**

Okay. Thank you so much. That was my last question. Do you have anything that you'd like to add or any questions for me?

**Respondent 17 26:34**

No, I don't actually I think I think it's going to be hard to change things because I know I've tried. And this this reluctance on the part of the department to change. So, you're going to have to think of an annual to come in, that you can argue with how you're going to change things, why to change things, and it's got to be a real argument. And once you've done it, please tell us what to do. Because our department needs to do it desperately. And I think you guys going to win because I believe that you have transformed a lot faster and more easily than the University of Catan. Think that you that up? embraces change more easily. So yeah, I'd be interested to know Well, I will good luck.

**Megan Roberts 27:40**

Thanks. Thank you.