Respondent 23 Interview

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**SUMMARY KEYWORDS**

students, plant, microscope, botany, approach, work, concepts, science, narrow, introduce, subject, year, module, structure, data, thought, build, important, broad, change

**SPEAKERS**

Megan Roberts, Respondent 23

**Megan Roberts 00:01**

Okay, um, can you please state your area of expertise or your field of research briefly?

**Respondent 23 00:13**

It's plant taxonomy.

**Megan Roberts 00:15**

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

**Respondent 23 00:33**

amongst botany students, or in general,

**Megan Roberts 00:37**

in general?

**Respondent 23 00:41**

Well, I don't really know, because I don't really have much to do with students outside of botany. But my guess from the culture that is on this campus, I don't think it's really a big interest for students, most students, so I can't really, I don't really have enough contact with other students to really say, this is a problem or not.

**Megan Roberts 01:18**

No. And in society in general,

**Respondent 23 01:24**

the society, the Twana society, not, I don't know, I will be, I'm doing a project with honors students, we were going to do a botany, it's the first time so maybe I'll be better informed after this study, when we've done the interviews, then I had more contact with them, then I can give you a better indication of what's happening in society. But I think because if you drive around, little houses, you know, it's devoid of any plants, you know, they clean it up. Some of them have a bit of grass, here and there. But in general, there's no gardens? Not very much. So, I think it depends on the level of education also and upbringing. The people, I think you needed to study on this, this might be very interesting.

**Megan Roberts 02:33**

I did my honors project on plant blindness in schools. And we found that is prevalent. My next question, do you have issues getting students to enroll for plant science degrees?

**Respondent 23 02:58**

Not really, not really. We have both mainstream and extended. And our if we think come first years, because you said it’s for the first year. We have an average in the mainstream of about 20 students, and then extended program an average of forty students. So that that sounds very low, but for our capacity, our venues and resources that we have that is okay. Those numbers we can manage. So, it's not I don't think it's a big problem. But we if they really took botany because they're interested in botany, that I'm sometimes not sure if they I had one student last year, a first year to sign forms for and she said, I asked about botany. And she said she's only doing botany because her sister is doing botany. She actually wants to be a flight attendant. So, I'm not sure if all 40 and all 20s really interested in botany.

**Megan Roberts 04:13**

Okay, thank you. I'm glad to hear that that's not such a massive problem for you guys. And 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 in the field?

**Respondent 23 04:42**

thinking long about this one, because, you know, if you take a narrow approach, let me see what I like jotted down. Yeah. You can do a few concepts in proper detail and you can lay a good foundation on a few concepts and thought from that. But it might not the concepts that you use might not interest the students, you know. So, they don't have a broad. How can I have said, a broad exposure to...I'm not really interested? But if you take a while this this problem or thing of exposure and getting students more interested in a broad approach will be more addressed in a broad approach. But with a broad approach, then I'm asking myself or you're not trying to do students too much information. While they are still adjusting to a brand-new environment, brand new things to do. And he said not on science in second and third year, I don't know maybe comes down to the content that you want to put in that broad approach, as well as in the second and third year. So, I don't really know, I think I honestly have no idea. Here at NWU we use the narrow approach. In the first semester, we tell them out structure and form and a little bit of cell. And in the second semester, we do the taxonomy, the pot of biodiversity, what different plants you get, and that's what we do. So, we take a narrow approach. So, I honestly don’t think, think there's a right or wrong approach. Maybe it comes down to the, to the what the department feels like.

**Megan Roberts 07:03**

Yeah.

**Respondent 23 07:04**

And also with a narrow approach, maybe it can bore some of your more when I say, advanced, clever students, I don't know, who needs much more to be stimulated than your student who is a bit slower.

**Megan Roberts 07:23**

Do you? Do you think that doing a broad approach could potentially help interest students more in plants?

**Respondent 23 07:41**

I think so, you might touch on something, tell them something that they would find interesting, I think so. If you do a little bit of different thing, I think so. But then within with a narrow approach, you can always stimulate interest by having information sessions or something. So, I think it depends on the lecturer, the way a lecturer approach, in a narrow sense. Also comes down to the lecturer, how they structure their classes do they think, oh they're just plain boring or I think at a lecturer, whatever approaches taken the lecturer must approach their way of doing things.

**Megan Roberts 08:46**

So, my next question, which of the following concepts Do you think should be incorporated into a first-year plant science module? evolution, pathways and transformations of energy and meta information flow exchange and storage, structure and function or systems?

**Respondent 23 09:10**

Okay, I said here, I personally think if you want to do anything with plants, you need to know what is a plant. You cannot really teach how a plant function if you don't know how a plant looks. So, I personally feel that you need to do structure first morphology and anatomy to know what is a plant, then you can build up on how does the plant function? How does it interact? And I think evolution in the sense of different types of plants, mosses ferns, angiosperms, gymnosperms I think that is very that should definitely be in a first year. And from there on you can build on other more complicated It seems How does the plant function? How does it work? I'm not sure the systems, what is these systems? You're talking about? Yeah.

**Megan Roberts 10:10**

It's basically an ecological perspective.

**Respondent 23 10:13**

No, no, I personally feel you must first know, how don't look what kind of plants they are. And then from there on, you can build the more How do they interact? How does the plot function? So, I think if you can address those, maybe in the first semester, and in the second semester, you can put systems and other concepts.

**Megan Roberts 10:44**

Okay. Which of the following threshold competencies Do you think should be incorporated into a first-year plant science module? The process of science, the interdisciplinary nature of science, the integration of science with society, communication, collaboration, understanding and interpreting data and quantitative competency. Okay,

**Respondent 23 11:10**

the process of science, I think you can introduce that to the students, but I don't think they're going to master the level of understanding until you actually do it. So, my personal opinion is to introduce it to them, but don't expect them to understand it, like somebody who's working with it. Give them the introduction, interdisciplinary nature of science, also feel that, introduce it to them, but they will really have the understanding the real understanding that in the end needed, once they actually work with this. Integration with science in society. Yes, I say introduce it, but you cannot expect them to have that level of understanding that you only can get when you work with it. Communication skills, I think, yes, but that is, since we can't have a communication subject as such, one can build this skill into your subjects with exams, presentations, assignments, collaboration. Also, I think just an introduction, but maybe you can incorporate that in a third-year project, where they then get the level of understanding that it's actually needed, understand and interpret data. Yes. And quantitative competency, yes, those things you do must start working on, but with the relevant subject that they are busy with, they must understand the subject they're busy with, maybe they're busy with the cell structure, then you need to learn them to understand and interpret the data that they are busy with the cell how to use microscope how to make a slide or you know, that the, the data must be relevant to the subject matter at hand.

**Megan Roberts 13:30**

So that's my opinion. If I had to ask you to pick your top two of those, which do you think would be most important for first year to at least have an introduction to

**Respondent 23 13:47**

let's say the process of science and then I think we must make it three the process of science there must be introduced. And then communication and that understanding and interpretation of data, the quantitative competency those you must incorporate in your, your subject.

**Megan Roberts 14:20**

Okay. Then, of those, which do you think should be left out until a later level?

**Respondent 23 14:34**

I don't think you must leave anything else out. I mean, I think introduce the students so that they can get an introduction so that they know there's something out there and then build on it in the later. You know, in the next year, we can do add a bit more in the next year, we can add a bit more so it's a gradual buildup of the skill or knowledge? Because this is things you can't really, really, I'm not sure how you're going to teach it, but you can. You can, you can introduce them. And then when they get to a level where they need to use it very, very intensively that they somewhere along the line, they have already heard of it. It's not something vaguely new. If they will remember, it is another question.

**Megan Roberts 15:37**

Yeah, that is true. Okay, my next question, before you read the information that I sent you, have you ever heard about the concept of vision and change?

**Respondent 23 15:52**

No. I have not.

**Megan Roberts 15:56**

do you think that it's a good tool to use as a guide in terms of restructuring a module?

**Respondent 23 16:04**

I think so. It's what, for me, it was quite interesting. And I thought, you know, it's definitely food for thought. So, I think Yeah, yeah. I think so.

**Megan Roberts 16:19**

So, in terms of changing the first-year curriculum, what do you think the barriers would potentially be?

**Respondent 23 16:34**

I don't know. I think it also, it also comes down to what is your capacity, staff capacity? I mean, if you have 100 students, and you have just one lab? I mean, what kind of practical? Can you do? proper hands on practical. So, I think it's the number of students that you can potentially get your infrastructure, your staff capacity, the quality of the students that you might attract, will they be able to perform at a certain level? And then maybe just people's opinions. Maybe you have a staff member that is near to retirement, and they don't feel like change? And then they can have all kinds of excuses. Why should not done? So? I honestly don't know. Really?

**Megan Roberts 17:44**

Do you have any suggestions as to how we might overcome something like? Well, all the things that you just mentioned?

**Respondent 23 17:55**

Honestly? No. I mean, no, I don't, you will have to see what barriers there is. And what the possible solutions there is, in your, your content, every institution is different. You will have to go and look at yourself. maybe ask advice in other places, and then see what will work for your situation. But to be honest, I don't know.

**Megan Roberts 18:35**

In terms of lectures, what kind of resistance? Could you see there being with this change being introduced?

**Respondent 23 18:47**

Oh, I think staff will. If staff is not open for change, well, it's going to mean extra work for somebody or everybody. So, it might come down to stop not having the time or don't feel like adding extra time to do extra work. The first-year lecturer, obviously, will have to do a lot of changes to the module, new lecture notes new practicals. So, I think, I think well, it will just be resistance to more workload. But if they're open to change, well, it's needed. Everything needs to change sometime. So, people just need to have an open mind also sometimes just implement and put your head down and do it.

**Megan Roberts 19:49**

What could potentially be a good selling angle for us to motivate people to be willing to take part in the change process.

**Respondent 23 20:00**

Relevance, keeping up with the universe, everything changes make the subject more relevant. Now, I think that is a better product end product? Delivery of better first years. That's it.

**Megan Roberts 20:31**

Then my final question, how important do you think hands on practical sessions offer first year plant science course.

**Respondent 23 20:39**

I personally think it's very, very important, you know, because in practicals, you start building skills, practical skills that they will eventually need in honors levels and upwards. And I think also, it helps the students to identify areas of interest. If you keep them away from a microscope, maybe they, if they work with the microscope, they Oh, I love the microscope, what can I do? In later years where I can use the microscope? Or maybe the students? Oh, gosh, I hate this microscope, what fields of studies is there where I never have to use a microscope or? Yeah, I think it's very important. And it's also the science in the process of science in demonstration, you show the student How does science work in real life? Many of the concepts is not thought of while the scientist was lying in the bath, it could help but the actually had to do some work. And this is the kind of work that was done. So, I personally think it's not negotiable must be there.

**Megan Roberts 22:03**

Do you have any particular skills that are that you think are important that first year should be at least introduced to such as you know, microscope skills or anything else?

**Respondent 23 22:17**

I personally think the microscope is very important, because you can use it you use it in physiology. In again, not ecology, but many of the other subjects, anatomy, so definitely then the microscope and everything about around the microscope. Maybe just general, basic laboratory things. Making a wet mount and a dry mount and maybe working let me think a bit. No. I don’t want to go to the molecular side, it had no just basic laboratory things. How to use a dissection kit.

**Megan Roberts 23:15**

Yeah. Okay.

**Respondent 23 23:19**

Well, also, it will depend on the subject matter.

**Megan Roberts 23:23**

You know, yeah. Okay. Um, thanks so much. That's everything. From my side. Do you have any questions for me or anything that you'd like to add?

**Respondent 23 23:39**

No, no, I don't want to not at this stage. I do think it's quite nice. Because I was also thinking we need to what, what are we doing here? You know, kind of set my thoughts also on Wednesday in the where are we at? So no, but now, I don't have in at the moment. But you did give me food for thought.

**Megan Roberts 24:15**

Okay, um, well, yeah, like I said, that's it for my site. So, thank you so much for your time. I really appreciate it.

**Respondent 23 24:23**

And then the only the one request I have is if you if when you publish this day, this data just sent me a copy. at like, rate. What was the results? What did you end up with? What was your conclusions?

**Megan Roberts 24:43**

Yeah, probably.

**Respondent 23 24:46**

Thank you.

**Megan Roberts 24:48**

Thank you so much. I hope you have a wonderful day. Yes. Thank you.

**Respondent 23 24:54**

Thank you.

**Megan Roberts 24:55**

Bye bye.