Respondent 16 Interview

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**SUMMARY KEYWORDS**

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**SPEAKERS**

Megan Roberts, Respondent 16

**Megan Roberts 00:01**

Okay, so I'm just going to ask you a couple of questions. And then we can have a bit of a discussion about it. And then that's all I need from you. Um, that normally takes about 45 minutes.

**Respondent 16 00:19**

Is this an MSc study. What, what study is this?

**Megan Roberts 00:25**

Yes, it's an MSc study.

**Respondent 16 00:28**

Okay, and this is your second year? Okay, starting now. Okay. Yeah. Okay. Good.

**Megan Roberts 00:36**

Okay, um, can you please state your area of expertise?

**Respondent 16 00:42**

Okay. So, I have a PhD in plant physiology. But when I was reading your questions, I was just thinking about my situation, I am in the Department of Agriculture. So, it's not a purely just normal science department. And in the plant science component that we do is slightly different. So, so I think my views will be slightly different from the lectures, that's just the teaching offering, the first year, just first year plant science module. So just to give a heads up on that. So, I think my responses will be slightly different. So yes, my own qualification as plant physiology.

**Megan Roberts 01:42**

Thank you. Um, so my first question to you is, is plant blindness or a lack of interest in plants a problem in your institution?

**Respondent 16 01:56**

No, not really, I think this I think the fact that we are in agriculture is actually a quite a big focus on the plants, not only plants, mostly crops, but that's one of the major, major fields in our department, is the plant science discipline. And it's actually, I think, one of the preferred areas for students in agriculture. So no, that's it's really not really applicable to our situation.

**Megan Roberts 02:35**

Yeah, I'm glad to hear that. Um, my next question to you is, do you have issues getting students to enroll for your plant science degrees?

**Respondent 16 02:49**

Again, I think ours is slightly different so. So, for the plant sciences in agriculture, no, we actually have quite a few. It's actually quite a, it's one of the few areas where there are many students that want to apply. And it's getting right through to postgraduate studies as well. So, it's not theirs, it’s actually a very highly regarded area in agriculture and there are many students enrolling for the plant science discipline.

**Megan Roberts 03:33**

Do you have any idea what the enrollment is like compared to other degrees or diplomas in natural science?

**Respondent 16 03:54**

See the pure plant sciences and another department and our college. And I think actually, they have quite large numbers. So, in agriculture, I think we have less numbers than in the, in the just pure sciences the we have a department Life and Consumer Sciences, we were one of the streams is in plant science. But as far as I know, that's actually also quite a big area and large enrollments in numbers there.

**Megan Roberts 04:37**

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 different fields?

**Respondent 16 04:57**

Definitely a broad approach Especially with I don't want to say that the poor education system and our schools, but you find that many students that's coming to university do not have the basic background that they should have, especially in the plant sciences. So definitely a broad approach definitely not a narrow approach.

**Megan Roberts 05:25**

You think in a first-year context, it would be helpful to introduce first years to the different fields of plant science, for example, toxicology. Agriculture is diversity.

**Respondent 16 05:42**

Yes, yeah. So yeah, yes, different fields. But with us, I mean, even the basic concepts. So yeah, it's really almost not only a revision, but that's where we start. And yes, and then different fields of plant sciences. But really broad. I would think and I and it depends on each institution. I mean, for our in our case, we, we did not even have a pure plant science module in first year. It's, it's infused in a basic biology module. I'm not sure at UP now. It's almost like, like your molecular plant. So, as I said, like, yeah, that first year, it's always something like that. So, we don't even and that's, yeah, at first year level, we don't even have just the plant science module. So, it's even infused in that. So. So really, the basic concepts, and it's almost like a revision, you can't we can't really go wider than that. It's just to get all the basic concepts, then yes. After that, maybe a different field. I would say that's basically it.

**Megan Roberts 07:19**

Okay. Do you have questions open in front of you? Okay, and then 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 matter? information flow, exchange and storage, structure and function systems?

**Respondent 16 07:48**

Yeah, I would think all of those are important. Yes, depending on how much passage you have, or space, you have in a module. But I think all of those are quite important.

**Megan Roberts 08:09**

Is there anything that you would add to those?

**Respondent 16 08:21**

See, these are quite broad. So, I think it covers all the all the different let’s say fields that should be covered. So, what you pack into each of those will be will be important, but I think those are quite good. coverage of the general or the in general. Yes. That's fine.

**Megan Roberts 08:44**

Yeah. And if I had to ask you to pick your top two most important, which would be

**Respondent 16 08:52**

structure and function, we definitely. And then maybe a join between B and C pathways and transformation, energy and information flow, exchange storage, something between those two?

**Megan Roberts 09:17**

Can I ask why did he think those would be the most important?

**Respondent 16 09:23**

Once again, structure and function, I think that covers more than basic concepts, especially for those that missed it at school level. And then the other two just is a bit more integration of those concepts. So, think about the others that you have there so it will use evolution. It's important, but I don't think at first your level that's so important, so there's always time to incorporate that into your curriculum later on. And then for instance, systems are always for me, always secondary to these to these three areas. So, these cover your basic things. And then those two is not advanced level, but it can be covered in lighter areas or later modules.

**Megan Roberts 10:26**

Alright, and if you had to pick one that you think should definitely not be included,

**Respondent 16 10:36**

let's say evolution.

**Megan Roberts 10:42**

Thank you. My next question, which of the following threshold competencies Do you think should be incorporated into the first-year class science module, process of science, the interdisciplinary nature of science, integration of science with society communication, collaboration, understanding and interpreting data and quantitative competency?

**Respondent 16 11:09**

Yeah, see, all of them are important. But once again, how you package that into a first-year module is so. So basically, what we try to do is to look at the whole curriculum from first year to the fourth year, and package these in the different layers. So, so all of them are important, but you cannot, you cannot cover all of them in a in a first-year module. So, we try to cover these competencies or the skills in a different level. So as a package of first to fourth year modules, we tried to cover that. So, all of these are important, but there's no way you will be able to cover all of those in a first-year module unless you just basically scroll over them and just introduce the concepts. But see and understand and implementation of data, we, for instance, include in the practical components, so we don't do it this really as theory, so there's some ways of integrating some of them into the curriculum. But to deal with all of them in detail will be I won't say impossible, but you just our experiences, we just have limited space in our first-year model. So, the interdisciplinarity and science and society communicate. Yeah, it's things. It's almost on a on a practical level. But all of them are important. But yeah, it's, I don't think it's feasible to include all of those first-year modules.

**Megan Roberts 13:06**

if you had to pick your top two, to be included.

**Respondent 16 13:11**

So, as I said, understanding and interpretation of data that's important, but it's more on a practical level. So, but it's, I think, one of the important things, and then some, like a combination of the interdisciplinarity and how it's, and there's a link to society. I think that maybe is, is as important as well.

**Megan Roberts 13:48**

And if I had to ask you to pick one until a later stage, what would it be?

**Respondent 16 14:01**

Maybe the process of science or maybe communication? Because there's thing that can't be dealt with in a latest stage. process of science. Yeah, but that's maybe not very important than the first-year level.

**Megan Roberts 14:28**

Do you have anything that you think it's important that you would like to add that's not on that list?

**Respondent 16 14:48**

No, I think these are I think these are quite extensive.

**Megan Roberts 14:58**

Okay. And then the answer next question then questions six we've already answered. So, question seven. Have you ever heard about vision and change before I contacted? You? know, do you think that it is? Or that it has potential to be a good way to look at changing modules? Yeah.

**Respondent 16 15:31**

You see, here, and then I looked at your other questions later on, as well. And I don't know, how does a university suppose, Unisa, for the past few years, we have, there was quite a focus on changing transformation that decolonization thing and Africanization and, and it's still on ongoing, so it's probably now for the past eight or seven, eight years, that there's quite a focus on that. And while we are reviewing our modules, and our curricula, and the qualifications, and so on, these were all kind of the first thing that was to be to be addressed. While looking at the other curriculum, and, and what we teach our students and so on. And one of the major things that came out there, which is I think, I studied at UP and what you told this kind of what you think is important when you teach students again, and this whole thing, just challenged all of us to go back and look at what is in the curriculum. And why do you teach it, and this is the best to be taught, irrespective of all of this what you were taught in, when you were first your second year, whatever. And the whole idea of I think that is still a lot, maybe what's happening in in universities is the idea of the student is an empty vessel and just pull all the information in there and that concept was kind of challenged, right through for many years now. And I think we are a bit down that line now. So, no we didn't see resistance, everyone is kind of agreed to that, that we should adapt, we should look at, at what is in the curriculum, why we do it. Instead of just this is what you've been taught before. And now this is how you're going forward. So, although I don’t know specifically about this, this thing about vision and change, and so on, I think it's a thing that's coming for a while now, it's not only coming up now, I think it's especially in our situation in our country. There are a lot of things that happen that’s kind of led us to look differently at what we teach and how we teach and what should be included in especially maybe at the lower levels of the curricula.

**Megan Roberts 18:49**

Thank you. My next question, which we've briefly touched on, what do you think the barriers to changing the first-year curriculum will be?

**Respondent 16 19:03**

Yeah, this I think, with my experience was that there were not really barriers or resistance. I think that the biggest thing for us is as a space, let's say space in a first-year module, you just have that many hours that match you can do it teach a student. Everyone knows that. Things that we talked about previously. The link to society and the integration of science and so on. everyone knows about it, but there's just that much space in our first-year model. I think that's the biggest barrier that we have. Yeah, there's a lot of things this you can have, you can have a whole section on evolution and you can I will thing on how you communicate in science and all those things. But I think the major thing is there the limitation on the, on the time that you have with a first-year students and, and the capacity that that a student can absorb. In a first-year module, I think that's, that's the biggest barrier, I don't think there's a lot of resistance in changing and adapting and, and realizing that there needs to be transformation and change and, and redevelopment and things in your first year. But the major thing is that you need them, the basic concepts and those things and also like kind of a bit of a revision of the basic concepts that students should have. And then the other side, all this links to development and plant sciences and all the things internationally that's happening, does strike a balance between just covering all the basic concepts and then dealing with all the other things like what we talked previously? I think that's the major thing, they think there's a resistance to do not include them and to not acknowledge the things that should go and to prepare students for, for the international concept, the global thing about all the things that's out the different disciplines in science and plant science and so on. But you have to be realistic about what is the capacity of a first-year student? I think that's Yeah, that's one of the barriers, the only barrier, I think,

**Megan Roberts 22:04**

Do you have any good suggestion as to how we might overcome that?

**Respondent 16 22:14**

that will, that will depend on each institution and each qualification as for ours, it's integrated into for instance, agriculture, so it's not pure Plant Sciences. But having the basic foundation is I would almost say more important in a module, first year module, in our case, because there's not students are getting to do pure plant Sciences. So, they're missing in the first year, their chances of catching up in a second or third year is, is almost zero. So, so for us, the major thing is to just cover all the basic concepts, and then when we have things like self-reading and links, and obviously, we are doing everything online, so we don't really have printed material. So, it's easy to do give students links to go read about evolution and go and read about integration of science and society and things like that. But once again, it is a limitation on the capacity of a first-year students so think using links and so on, students can browse through to familiarize themselves with those concepts as maybe a maybe an I the best way to introduce the concepts, but not going into detail. So, focusing on the basics and the basic principles and foundation and then provide additional links and webpages and videos and things like that to just trigger the students to go and look further and just get an idea of what's out there.

**Megan Roberts 24:28**

Okay, thank you. My next question, what kind of resistance need to see what lectures have to be?

**Respondent 16 24:46**

Yeah, just think about us. We are online. But even they were quite a lot of resistance. As always resistance when you want to change things, and when you want to introduce new things because it's easier just to continue as you. And I think this this is that comes back to, this is what I've been taught in first year. And this is I'm going to teach students going forward. And I think that's why this whole thing of transformation and decolonizing, and everything was so important. It's just challenge ideas about that. So. So yes, there's always a resistance, and in our case with going online is a resistance, because it's completely different, it's easier to, to just have it printed materials send it out, and the students just responding to that the moment you go, for instance, with us online, and as I mentioned, now, the links to web pages and things you put on. It's dynamic. So, it's changing all the time. So, what you teach in one year might not even be relevant the next year. So, you have to update it regularly. So, it's, it's, it's requiring for lecture to be more up to date. To make sure that that's what's in this is still relevant. And because it's not the printed material, for instance, for us, you can change it every year. It's not, it's not fixed, like, you have a textbook and you're linking to that textbook. So. So there's always a resistance, especially I think, because it requires from the lecturers to be to be more updated and to, to be continually renewing and, and we also, you can't stagnate because this is too dynamic. So, I think that's a resistance, you don't always have time for that you don't always have the energy to do to look at all the new things that's happening and to update the whole curriculum. So, it's easier to just continue what you had previously. So, I think there is maybe resistances, to put the pressure on the lecturers to, to make sure that they are up to date and be cognizant of what is happening internationally and in the fields.

**Megan Roberts 27:31**

Okay, thank you. My next question is what could potentially be a good selling angle for us to motivate people to be willing to take part in the change versus?

**Respondent 16 27:51**

Well, I think especially now, the last two years for this whole thing of this virus and the pandemic and so on. I think everyone is realizing the importance and the need to, to infuse technology and to make use of different platforms. I think with us Yeah, I think everyone just realized that it's no use to, to look back and see what was, what was your comfort zone in the past. It's just not, it's just not feasible, and it's just not going to work in the future. So, with us, for instance, going online, and the people resisted that, and just vanished because there was just no other option. So yeah, I think what's happened the past two years is a good selling point is to show that we can adapt easily. And when you have to adapt in all these things happen. And everyone realizes, then you don't have a choice, then you have to. And I think that realization is now that technology and online sources and looking wider than just the textbook or the printed material that we had previously is as all of a sudden reality. So yeah, I think the whole just the whole thing of technology and infusing technology and the opportunities that's coming with it.

**Megan Roberts 29:58**

Okay, thank you. My final question for you then is how important do you think hands on practical sessions are for first year course.

**Respondent 16 30:10**

extremely important. And that is now from my viewpoint from a distance education. And I think as I mentioned, just more and more things will probably go online and students will probably at other universities also be less contact and more online. And this is extremely important to, to just not forget about the practical aspects of this field. And, with us, a lot of criticism on us because we did not look at other ways of practical to, to get students to do practicals, even though we are not face to face. So, things like the demonstrations and videos and yeah, home based practical things that they can do. So, we a lot of we are criticized for not looking into that. But that's, I don't think it's really serving the purpose, you can do that to an extent but, but having a face to face and checking what students are doing and that they acquire the necessary skills, that is extremely important, especially at first level. And I don't have an answer to that, I don't know how we going to address that in our own university going forward, if we do not have contact with students and to make sure that the necessary skills are acquired by the students, but it's extremely important, the practical component cannot just be ignored. And I think it's, it's being pushed to the back. Because of the situations we are in, especially at our university. If you go online, it's easy just to post a video or demonstration and, and so require students to just look at a video and they are responsible for themselves to acquire the skill but the assessment on that, and really making sure the skills are acquired. It's not that easy when you are not face to face. So just to come back. Yes, it's extremely important. And I hope that with moving online and digital and less face to face, this is not going to disappear, because it's easy to hide. We had students in the third year where they never attended a practical because they just have some excuses on, they can't attend blah, blah, blah, especially with our university and then again, a third-year level and they never had a practical, they get an alternative assignment or a home based, practical and so on. So, you get agricultural students that get to a third year that was never on a farm, or they've never attended the practical, which is. Yeah, I mean, you can't think that that's happened, but that is happening. So, it's just so important to make sure the practical component is covered.

**Megan Roberts 34:01**

Thank you. That's all the questions that I have for you. Do you have any questions for me or anything that you'd like to add?

**Respondent 16 34:13**

No, I don't think I have I just said I'm beginning I hope that the angle from my side that's not pure Plant Sciences. I hope it's not going to skew your results or your information.

**Megan Roberts 34:31**

No, we do have other agricultural scientists.

**Respondent 16 34:37**

So yes, no, that was my only concern and if that's fine and that

**Megan Roberts 34:43**

Yeah, and that's fine. Okay, I'm going to stop recording now.