# Respondent 10 Interview Summary

## Question 1 (1,12,7,9,

* The institution as a whole yes, but the people we come into contact with not as much because everyone is studying agriculture and has a general appreciation for plants
* Plants are undervalued and people don’t really understand them
* Probably an issue in first years, especially in terms of students being unaware of the career opportunities, especially in agriculture.
* A lot of students get exposed in first year and then move over, often after not getting into one of the bigger degrees like vet or medicine.
* This is especially for the agriculture but it’s probably exactly the same for the botanists
* More aware of the more mainstream jobs than the les advertised plant science jobs.

## Question 2 (1, 11, 9,

* Yes
* People don’t often understand what the degrees entail, often referred to as gardeners by peers.
* Because they don’t understand what the degree is about, people don’t want to study it
* Agriculture has bad perceptions around it, it’s always related it farming which is so far from the truth
* Complete lack of understanding about what the degree involves and the career opportunities within the field
* We did a marketing spree where they tried to advertise the degree and expose first years and matrics to what its actually about and it did up the numbers
* Important to get good information out there

## Question 3

* Narrow approach gives you a good foundation for future years and focusing on principles that will help your degrees going forward
* Broad approach makes sure the students are exposed to a wide range of things and this could be more beneficial in terms of students finding their interests.
* So broad approach to interest students more but designing it in such a way that the basics are still being covered,
* Also be sure to show students the applied nature of what they are learning as opposed to just mounds and mounds of theory and not understanding why its relevant
* Would also be good to peak students interests and show them the wide range of career opportunities available
* Narrow approach with lots of detail could overwhelm students, too much detail could make them uninterested.
* The target should be creating good graduates that are needed outside the university by being responsible enough to make sure that numbers don’t go up so much that the job market becomes flooded and then half your students can’t get jobs.
* We just need to show them what’s available and help them appreciate the world around them
* Students are definitely not getting good career guidance at school, especially for the science degrees
* Creating links for students is also important, showing them why the other subjects they are doing are important even if they don’t think it is
* We need to be careful that we don’t go so broad that at the end of the day they don’t achieve anything and they don’t see how the things connect

## Question 4

* Structure and function is important, especially if students can link what is looks like to why it looks like that
* Structure and function will link really well with evolution
* Pathways of transformation of energy and matter will link nicely with structure and function in terms of you have these things and what do they go through to actually build something
* Information exchange and storage is a good one because it shows how dynamic plants are and how unlike animals, they are but how they can still adapt and grow
* Systems can then link how the individual plants work together to form a system and link together
* In all of them you can find examples of why it’s important to know these things
* It’s important that students don’t just learn stuff but they understand it and apply it and understand why it’s important to know
* Understanding it is so much better than memorizing it
* Top two: structure and function and pathways and transformations
* Really understanding the makeup of plants and how they function and then the importance of the energy and matter
* I wasn’t exposed to very much evolution and I don’t think it’s all that important, a lot of students also have negative connotations towards evolution
* I enjoy the concept of less is more, you don’t want to overload them with so much information but rather just give them the basics
* This stuff might all be relevant but it’s too much

## Question 5

* In fourth year, students I often see concerning things like they struggle with the process of science and understanding and interpreting data
* Really you want them to have a foundation which they can build on for the rest of their degree
* Understanding the process of science is important and can link in nicely with the concepts mentioned above
* I feel students should have more of the philosophy of science, they get to a master’s degree and they have no idea and that’s a problem
* Things like being able to write well, that’s an important skill that they can use throughout their degree and so it should be delt with in first year
* Process of science, understanding and interpreting data and qualitative competency would have really helped me to have a good understanding on early on in my academic career
* Having a good foundation means you are more equipped to deal with the courses that are getting harder and harder as the years progress
* Integration of science and society and communication go hand in hand, being able to communicate your science to society is important, we’ve seen how important that is now with covid
* Without a science background you can believe the lies that are being spread and it makes it harder to understand the things you are reading
* Understanding and interpreting data is obviously very hard to do in such large classes but there might be ways to get around that in terms of looking at supporting topics with data and showing how the data was used to reach conclusions and so on
* Top two: understanding and interpreting data and the process of science

## Question 6

Concepts: systems is the final step so maybe not include that for the sake of keeping it simple and not overwhelming them, because it is relevant

Competencies: collaboration can come later

## Question 7

* No, I haven’t

## Question 8 (4, 1,3

* Capacity is an issue, lecturers are overloaded
* It’s easier to carry on as is that to change everything
* We are so busy with life that we don’t really have the time to give big stuff like this a thought and it does need to be thought about
* Some personalities might be resistant to it, if it’s worked for so long why change it now
* Some people might think their field is more important than others

## Question 9 (7, 1

* There are lots of new, young academics that can make positive contributions to this
* Selecting the right team to tackle these issues will have a big impact and having the right person in charge helps a lot too
* The person in charge should be able to deal with big personalities in democratic ways, they should have a broad overview and a lot of patience
* I think done properly it can make a massive difference to plant sciences at UP, both pure and applied

## Question 10 7

* Making people feel included can go a long way, trying to take everyone’s opinion into consideration
* People need to feel like their opinions matter
* Agric tried to get access to first years a while ago to try and market a bit and just show them what the degree involves because most of them don’t know and after a struggle, we still didn’t get access and what we do is so important

## Question 11 (2, 3

* Make sure people understand the benefits
* Increasing out numbers is vital, and maybe even being able to target better students, students that have maybe excellent maths skills which is something the applied sciences really need
* People just need to understand that in the long run this will benefit us

## Question 12 (1,8,10, 4, 3

* They’re critical but this is difficult to implement
* We don’t do enough of them and this is often because of the large numbers
* It’s important to have hands on experience
* The school system is lacking in this, they aren’t coming out of school with the practical skills or the skills to write up practical reports
* In some ways we need to bridge the gap between the diverse schools in our country and give them some kind of practical experience
* Microscope work can be really important and links nicely with structure and function
* Pracs need to be related to the theory very carefully, to put the theory into practice basically
* Because of covid we have had to learn clever way of doing things in an online setting
* Doing pracs that fit into the curriculum and makes them learn is important, if you can capture the top 10 or 20% with then and get them interested and excited about plants and the potential careers in plants