Dear participant,  
  
Thank you for taking the time to fill out this questionnaire! For my Master’s thesis I am conducting a research project on the importance of theoretical knowledge in biological research and education. This questionnaire measures the views of students on aspects of theoretical biology education. The target group is life science students at the University of Amsterdam. It is important that you understand the procedure of this research. Therefore, please read the following text.  
  
Instruction  
In this survey you are asked to fill out a couple of questions. The questions are about your views on theoretical education at the University of Amsterdam (UvA). All questions relate to your personal views and experiences. There are no 'right' or 'wrong' answers, so please feel free to give your honest opinion. Filling out the survey will take approximately 10-15 minutes.  
  
Voluntariness  
Taking part in this research is voluntary. All information will be treated confidentially. You can stop filling out the questionnaires at any moment, without having to state the reason.  
  
Discomfort, risks, and insurance  
No special insurance applies as there is no expected discomfort or risks for the participants of this survey.  
  
Confidentiality  
The data from this research will be used for scientific analysis. No personal information will be used, and your anonymity is fully guaranteed. For further information about this survey, you can contact me, T.P.W. Vervenne (t.p.w.vervenne@uva.nl), or my supervisor, dr. M. Bruijning (m.bruijning@uva.nl). For any complaints about this research you can contact the member of the Ethics Board of the Institute of Biodiversity and Ecosystem Dynamics at the University of Amsterdam, dr. C.J. Hickey (email: c.j.hickey@uva.nl).  
  
You may download this information [here](https://uva.fra1.qualtrics.com/CP/File.php?F=F_0MvYqdXjlKixqgm).  
  
By confirming the four statements below you declare to have read and understood the above information. Additionally, you declare to agree with the procedure as described above.

* I am an UvA student older than 16 years of age.
* I have read and understood the above information.
* I agree to participate in this survey and to the use of data obtained with it.
* I keep the right to stop filling out the survey at any moment I wish to.

Q1.1: Are you a Bachelor or Master's student at the UvA?

* Bachelor (BSc)
* Master’s (MSc)
* Other, namely:

Q1.2: What is the name of the program you are enrolled in at the UvA?

Q1.3: What is your age?

Q2.1: What is the main reason that you went to university

* It was the most logical step after high school
* I enjoy learning new things
* I want a well-payed job
* My social environment (friends / family / etc.) expected it from me
* I want to have a specific profession later
* Other, namely:

Q2.2: Why did you choose to study the program that you are currently studying?

Q2.3: What are at this moment your main areas of interest within the field of biology? List at least one and at most three of your interests. If you have no preference, write 'no preference'.

Q3.1: What do you consider the most useless subject, course and/or topic you have ever learned / had to study during you time in school or university?

Q3.2: Which of the following disciplines do you see as "essential" in the field of biology? 1 = completely unessential, 5 = extremely essential

* Statistics
* Chemistry
* Mathematics
* Physics
* Philosophy

Q3.3: State to what extent you agree with the following statements. 1 = strongly disagree, 5 = strongly agree.

* I find it important to understand the relevance of a subject / course
* A subject / course must have a concrete application in biology
* All courses I take are relevant to me
* As a biologist, I should know a lot about other scientific fields too

Q3.4: State to what extent you agree with the following statements. 1 = strongly disagree, 5 = strongly agree.

* Mathematics helps me explore the limits of my thinking
* Mathematics is nothing more than a thought experiment
* Models do not do justice to reality
* Humanity would be nowhere without well-functioning models
* Philosophy makes me look at things differently
* Philosophy is not of practical use for me

Q3.5: State to what extent you agree with the following statements. For theory, take the following definition: "*A series of statements or principles designed to explain a group of facts or phenomena.*" 1 = strongly disagree, 5 = strongly agree.

* Theories should not remain too vague
* Theories are best when they have a practical application in the world
* Theory and practice should be closely connected
* Theories can be somewhat general in order to describe reality properly

Q4.1: What type of job do you envision to have after your studies / time in university?

Q4.2: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* If I want to know something about the world, I will go out into the world
* I like to learn about the world through the internet or books
* I want to physically see what I measure or research
* I often philosophize about the world
* I learn a lot by being outdoors
* I prefer to study organisms in their natural habitat
* I prefer going through life without having to use a computer
* The best way for me to generate knowledge is to think about it myself
* I enjoy being in a laboratory
* I prefer to study organisms in a controlled setting

Q5.2: When conducting research, which stages / steps do you enjoy the most?

* 1. Reviewing literature / reading about the topic
* 2. Formulating the research question and hypothesis
* 3. Figuring out which research method(s) to use
* 4. Data collection
* 5. Data analysis
* 6. Reporting / writing
* 7. Presenting the research
* 8. Implementing research results
* 9. Other, namely:

Q5.3: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* I have once come up with a theory myself
* I have once proven a theory
* I feel confident in doing a complete research by myself
* I often think about how the world is structured
* If I can't explain something, I look for explanations

Q5.4: State to what extent you agree with the following statements. 1 = strongly disagree, 5 = strongly agree.

* Sometimes science makes things unnecessarily complicated
* Reality is simple
* Everything can be solved if you think about it long enough
* Science can explain everything in the universe
* Scientists are better at discovering new knowledge and inventions than non-scientists

Q6.1: What is for you the best way(s) to complete a course / achieve a grade? Choose a maximum of 3 options.

* Written exam
* Practical
* Research report
* Oral exam
* Presentation
* Essay
* Participation / effort
* Other, namely:

Q6.2: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* I like to have a variety of subjects / courses during my studies
* I will not have to use everything I have learned in school / university later in my life / career
* I get too many different subjects / courses in a (study) year
* It takes time for knowledge / course material to get into my system
* When studying complex material, there can be an "euraka moment" which makes me understand something from one day to the other

Q6.3: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* I need practical examples to understand complex subjects
* Too many details confuse me
* I need to put things into words to understand them
* I need to understand something first before I can put it into practice
* Writing about a topic helps me to better understand a subject
* I could fully understand complex topics using only images
* I understand difficult material best if I can talk about it with someone

Q7.2: Which learning activities help you learn the most? Choose a maximum of 3 options.

* Tutorials (“werkgroepen”)
* Laptop-based practical (“laptopcollege”)
* Lectures
* Fieldwork
* Practicals (including labwork)
* Self-study
* Discussion groups
* Other, namely:

Q7.3: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* I focus on biology, leave the other scientific fields to others
* If complex mathematics is needed, I ask a mathematician
* If I need a computational model, I will (try to) build it myself
* Philosophers know better than me how to answer fundamental questions
* I like to figure out how things work on my own
* I learn more things during my studies than I will need later in my life / career
* If I don't know how to do something, but I need the skill, I want to learn it myself

Q7.4: State to what extent the following statements apply to you. 1 = strongly disagree, 5 = strongly agree.

* I prefer figuring things out myself rather than having someone explain them to me
* I want to be able to execute all parts of the research process myself
* I accept things as they are
* I can work with something without completely understanding it
* I learn best with others
* I learn best from others
* I like other scientific disciplines as much as biology
* I am as good in other scientific disciplines as in biology