



UTQ Fast Track Course

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Teaching Practice

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Table of Contents

	Page
1 Introduction and general context	3
2 Overview of the teaching practice	3
3 Organization of the Teaching Practice report	5
4 Report of meeting during first video discussion	6
5 Personal reflection and action plan	10
6 Report of the meeting during second video discussion	15
7 Overall reflection about my Teaching Practice	18
8 Additional documentation	24

1 Introduction and general context

The present assignment is part of the UTQ Fast Track course and encompasses a number of learning goals related to my teaching practice and skills. Specifically, I should be able to demonstrate that after having followed the course I am able to:

- Explain my own ideas about teaching and connect these ideas to the context of the VU University.
- Ask relevant questions in class and deal with questions of student.
- Present information clearly.
- Engage students and inspire them.
- Kindle students academic skills and model academic thinking.
- Deal with unforeseen situations in class.
- Give relevant feedback.
- Guide small groups.
- Reflect on my teaching practice.

The overarching goal of this assignment is, building on everything that I have learned during this course, demonstrate how I have been able to improve and enhance my teaching practices.

2 Overview of the teaching practice

This *Teaching Practice* assignment was organized and carried out as follows:

- **Teaching practice session 1.**

This consisted on a video recording of a previous teaching practice. The specific recording that I chose was a lecture of the *Van quantum tot molecuul* course, that I taught on the 10th of March 2017. The recording is available here:

<http://av-media.vu.nl/VUMedia/Catalog/catalogs/few-van-quantum-tot-molecuul-2016-2017>

This course is part of the Bachelor in Medical Natural Sciences (*Medische Natuurwetenschappen*, MNW) offered by the VU, and is typically taken by second-year students.

This video recording was viewed and discussed within the course. Both the students and the staff developer (Dr Anja Swennen) provided feedback in order to identify strengths and weakness of my teaching practice. This feedback is discussed in more detail below. The complete list of feedback forms provided by my peers is included as an appendix to this document.

- **Making a personal action plan.**

Based on the feedback that I received in the teaching practice session 1 (described above), I made a personal action plan that helped me to work in those specific teaching skills that I found more difficult or challenging.

- **Working on specific skill in own teaching practice.**

In this part of the assignment, I experimented and practiced the chosen teaching skill in my own teaching practice. Specifically, the skills that I chose to improve is my ability for being more *open*, *accessible*, and *engaging* with the students.

- **Teaching practice session 2.**

A second video recording was made, with the aim to illustrate my progress in improving some of the weakness and limitations that were identified in my first teaching practice session. This video recording was shown also within my peers, from which I received as well valuable feedback. The course instructor, Anja Swennen, also provided her feedback at this stage. As in the case of the first teaching practice session, also for the second one the complete list of feedback forms provided by my peers is included as an appendix to this document.

Since I did not had any teaching scheduled between the first and the second teaching practice sessions, in agreement with the course instructor we recorded my presentation about the topic “*Assessing, Testing, and Evaluating*”, which I gave as part of the activities of the UTQ-ft course on the 5th of October 2017. The recording of this Teaching Practice Session 2 is available here:

<https://www.dropbox.com/s/guono685oopu7zl/VideoRecording.mov?dl=0>

I should also mention here that the slides that were used as visual support for this presentation, as well as the corresponding handout that was prepared and distributed

among my peers before the presentation, are also included in the appendices to the UTQ-ft assignment on *Course Redesign*.

- **Reflection.**

The final part of this assignment consisted on writing a final report in which I reflected on the my progress in improving my teaching practice and teaching skills, specifically at the light of the feedback that the course instructor and my peers provided to me during the two video sessions.

In addition, as part of this report I formulated a number of goals that I should aim to in order to improve my future development as a University teacher.

3 Organization of the Teaching Practice report

In the rest of this document, I provide more details about how the various components of the report for the Teaching Practice assignment were carried out. Specifically, I indicate what I have discovered in the course of this assignment related to my teaching practice, and the specific skills that have been developed when working on the action plan. In particular, in this report I will reflect on and provide evidence for my development as a teacher. This report will then be used for by two assessors, the Staff Developer Dr Anja Swennen and my personal Tutor Prof Piet Mulders, in order to assess my teaching skills.

This report for the Teaching Practice assignment of the UTQ-ft course consists on the following components:

- A report of the group meeting during which my first video was discussed.
- My personal action plan.
- A report of the group meeting during which my second video was discussed.
- A report in which I reflect on the progress that I have made in my teaching practice as a whole, and my chosen skill in particular. In this report I also describe what plans I have made in order to change and improve my teaching practice in the future.

4 Report of meeting during first video discussion

To begin with, first of all I present a report of the group meeting during which my first video was discussed. Specifically, I summarize here the feedback that I received, and how did I reflected on it. I will describe how I experienced receiving feedback on my own teaching practice, and whether or not there were any surprises or eye openers. I recall that the complete set of feedback forms that I received after the visualization of my first video recording is included as an appendix of this document.

Concerning the concrete positive elements that my peers appreciated after they had seen the video recording of my first Teaching Practice session, some of the points raises include the following:

- I had a clear, strong voice.
- I was focused during the lecture, with no distractions.
- There was a good flow in the presentation.
- I made a good use of the blackboard, with a well-organized derivation.
- I was good at illustrating the theoretical concepts with examples.
- I had an enthusiastic expertise.
- I achieved a good delivery and a good visual demonstration.
- The tempo in my blackboard derivations allowed students to follow it properly.
- They appreciated that I made a good use of the lecture notes during the whole lecture.
- My peers perceived me as someone self-confident, who conveyed an impression of expertise about the topics that were being explained.
- My handwriting was good so the students could follow easily as I wrote on the blackboard.
- I had some communication with students asking if they had questions several times.
- I made good use of body language, specifically with my hands, to indicate which part of the blackboard I was referring to.

On the other hand, my peers also identified some flaws in my teaching practice, and provided a number of tips with concrete suggestions about how I could improve my teaching. Some selected suggestions that I received from my peers include:

- I looked very concentrated and serious, I might want to look more friendly and relaxed sometimes.
- I should try to make eye contact with the students more often.
- I should talk a bit less when writing on the whiteboard.
- There were suggestions of using colors on the board to improve visibility.
- I could do more to ensure that the students actually were following the topics that I explained during the lecture.
- I should avoid showing my disappointment when the answers of the students to questions that I made were completely wrong.
- Related to the above point, I should be more embracing with the students, rather than exhibit frustration when they give an incorrect answer.
- To make more engaging the lecture, I should use perhaps some more visual material like images and examples.

After having summarize the feedback received from my peers after the first training session, both the positive aspects and the tips for improvement, I now move to reflect briefly about this feedback. Concerning the suggestions for improvement, I agree that I look too serious and concentrated sometimes, and that this might prevent the students to participate more actively in the lecture. I realized that the reason for this is not that I want to create a distance from the students, but rather than the specific subject which I teach (Physics) is one based on detailed derivations from one set of axioms and postulates to the resulting consequences, a derivation where one step follows logically from the previous one. Therefore, I need to be concentrated to make sure that the logical flow of the argument is expressed properly. But indeed this might have the downside to create a barrier with some of the students, which would be important to remove.

Continuing with the advice for improvement that I received, it is also true that I interact too little with the students. The reason for this is that the syllabus of the course (that I could not change since it is fixed) is rather extensive and requires covering a large amount

of material, so I was wary of losing too much time with the interactions with the students and then now being able to cover all the topics. However, on the other hand, the learning of the students would benefit of more discussions and in-class activities, and in addition that would provide me with useful feedback about whether or not the students were following the lecture. Therefore, all in all I agree that covering a bit less material but having more time for examples, in-class discussions, and other related activities would be positive to the student learning.

Moving to the positive aspects of the feedback that I received, I was glad that my peers considered that my teaching practice exhibited enthusiasm, self-confidence, and expertise. I am also happy that they appreciated the good use that I made of the lecture notes and handouts, which I believe it is an essential component to facilitate student learning and that I put a lot of effort in preparing. In addition, I appreciate that my peers found that I made a good use of the blackboard: I am really convinced that the blackboard ensures that the appropriate tempo is employed when presenting new physics concepts or mathematical derivations, in a way that would have been completely impossible if *i.e.* the lecturers used slides.

To complete this report on the discussion that following the visualization of the video recording of my first Teaching Practice session, I now turn to describe how I experienced receiving feedback on my own teaching practice, and whether or not there were any surprises or eye openers. I have to say that I found this experience very rewarding and enlightening. One thing is the perception that one has as a teacher oneself, and another very different thing the perceptions of other colleagues. In particular, I appreciate that my colleagues emphasized that while I was confident, clear and enthusiast in my teaching, I could also sometimes be perceived as distant, not accessible, and not engaging with the students. I guess that my teaching style follows that of the professors that most inspired me at the University, and is true that their style was of lengthy lectures with very precise and detailed explanations and derivations, but very little interaction with the students. While this can go well for some students, I appreciate now that for many other students this style can create a barrier that markedly makes difficult their learning, and that thus should be removed.

I would not say that this feedback was surprising, since I had partly realized it myself before. But the difference is that now I have a strong motivation to improve my teaching practice to improve my skills and address the flaws that I might have. Indeed, one of the main benefits of having followed the UTQ-ft course is that I have been provided with a number of pedagogical tools to make my teaching practice more accessible and engage more

the students in the lectures, that is, to make them perceive that I have there to help them with their learning rather than to just to judge whether or not they will pass a test. A non complete list of the pedagogical instruments that I plan to implement in order to improve on this issues includes the following:

- Prepare short in-class activities just as quizzes and peer work.
- Prepare short easy questions to motivate the students to participate, rather than formulating directly the more difficult questions.
- Make more use of technology such as online polls that the students can fill with their mobile phones during the class.
- Aim to cover a bit less material and allocate more time for discussions and class activities.
- Ensure that I always maintain a related attitude, that makes me more approachable by the students.

5 Personal reflection and action plan

Here I describe the personal action plan that helped me to work in those specific teaching skills that I found more difficult or challenging, based on the feedback that I received from my peers and from the course instructor after the discussion that followed the visualization of the recording of my first teaching practice session, and summarized above.

This plan is divided into 9 subsequent steps, each covering a specific aspect of the process. I now describe in some detail each of these steps in turn.

- **Step 1.**

The first step of the personal reflection plan was focused on elaborating on a particular teaching skill that I wanted to develop or improve, such as asking questions in lectures or make more eye contact during teaching.

During the feedback that I received from my peers after the first teaching practice session, one of the aspects of my teaching that was considered weaker was that I tended to appear as *not embracing* or *distant*, to the point that the students might hesitate to ask questions or not answer the questions that I asked during the lecture. With this motivation, the skill that I chose to improve as part of this personal reflection plan as: *being more embracing and accessible with the students*.

- **Step 2.**

The second step of the plan was based on defining a continuum from really undesirable to desirable. In other words, I had to try to imagine what it would look like to be really incompetent at the specific skill that I was aiming to improve, and the exact opposite.

As mentioned above, the specific skills that I focused on developing was that of being more embracing and accessible with the students. Of course, there are also limits and negative aspects about being too accessible, for instance the students might perceive that I am not taking my job seriously. So there are two *limiting cases* concerning this specific skill which I aimed to improve:

- On the one hand, a person really incompetent in *being accessible and embracing* is someone who consider students as kind of enemies, or at least as subordinated. This person does not really care about the student feedback, and is more worried in giving herself the perfect lecture (from the subjective point of view) than in making sure that the students are grasping the relevant learning objectives.

- The opposite limit is a professor that wants to appear so accessible that ends up looking like a *buddy* of the students, rather than their teacher/instructor. This can be perceived as someone who is not taking her job seriously, because the relationship between students and instructors, while it would be open and transparent, cannot be perfectly symmetrical.

Moreover, someone who strives to be too accessible and embracing with the students might run the risk of prioritizing achieving positive evaluation and feedback from the students over them actually achieving the learning objectives of the course.

In this respect, I believe that the right measure of being embracing and accessible should lie in between these two extreme cases.

- **Step 3.**

Based on the considerations above, I placed myself in the following position concerning my *being accessible and embracing* skills at the beginning of the UTQ-ft course:

Distant/not embracing	X	Too accessible/embracing
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- **Step 4.**

Next I indicate where I would like to be concerning my *being accessible and embracing* skills at the end of the UTQ-ft course. As discussed above, I wanted to strive to become more accessible and embracing but without reaching a point where I would look not serious or unprofessional. For this reason, I wanted to aim for the following skill level:

Distant/not embracing	X	Too accessible/embracing
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- **Step 5.**

The next step of this personal process was based on describing what was holding me back in development of the desired skill. This exercise could also provide starting points for the actual development of the skill itself.

My feeling is that I need to be very concentrated for teaching in an efficient way. This intrinsically related to the *subject that I teach, physics*. In most of the lectures, there is a logical flow between premises and assumptions and consequences, that need to be carefully derived by means of following a set of equations. It is difficult to follow

this flow unless one is very concentrated, since after every step there is only one other possible step. Therefore, while I might appear to be distant or not accessible, the reality is that I am really concentrated with teaching.

This analysis also suggest a possible way to improve on the development of this skills and be perceived by my students as more embracing and accessible: stop the mathematical derivations in the lecture saying twice per hour, and then implement some short group activity (like a quiz or a short group question) to interact more directly with the students. After this has been carried out, I could resume with the lecture, having hopefully been perceived as more open and accessible by the students.

- **Step 6.**

The next step in the personal plan is to attempt to formulate what I would gain by *not developing the skill*. And the answer is that I would not gain much: my teaching practice would be unchanged, but I would still be perceived as not accessible by the students, and this would still be a limiting factor for those students in reaching the course objectives, for example those which struggle in following the mathematical derivations but don't have the confidence to ask me for clarifications.

- **Step 7.**

Next I was asked to imagine what I would gain if I indeed developed the skill to the desired level indicated in *Step 5* of the plan. In particular, I should make explicit what changes would I expect in my own teaching behaviour and in the learning behaviour and the results of my students.

In this respect, if I improved my *openness and being accessible skills*, I expect that the students would be able to provide more feedback about what is clear and what is not in the lecture, as well as to participate more actively in the in-class discussions.

The main change that I would expect in my teaching behaviour would be that related to how I would present the material in each lecture. Instead of long derivations with minimal student participation, I would pause at least a couple times per lecture to engage with the students with *short activities* such as quizzes or group work, aiming to assess if they have digested as particular aspect of the lecture just covered before. This would allow me to interact with the students, and that would also facilitate their participation in the class activities, since asking questions after a short in-class group activity is always easier than interrupting the lecturer in the middle of a long and

complex derivation on the blackboard.

Concerning the expected *impact on the results* of my students, I would say that this improved openness and availability of my teaching practice will improve the results, specially of those students who struggle with specific topics in the lectures but are afraid to ask for clarification. I should mention here that despite I am available after each lecture to discuss open questions with the student, very few of them actually take profit of this opportunity. This could also be an undesired consequence of myself appearing too distant or not accessible by the students, and should definitely improve once I achieve the planned level of this specific teaching skill.

- **Step 8.**

The following stop of this personal plan consists on describing the specific steps that I should undertake in order to arrive at the desired level. In this respect, I plan to achieve the following steps:

- Prepare carefully before each lecture a *detailed lesson plan* that allocates time for short in-class activities that give me the opportunity to interact with the students, and gives them confidence to ask questions to the instructors without interrupting the main flow of the lecture.
- After each of the main topics of each lecture has been explained, *prepare two-three short questions* to trigger the discussion within the class. Start with a very easy question, to start participation, and then move slowly to more difficult questions. Never look disappointed if an answer is correct, but use wrong answers to illustrate better what the correct answer should have been.
- Introduce *more practical examples* which illustrate the theoretical concepts during the lectures. These examples should be familiar to the students, and then I would ask them to find other examples that they might have encountered before.

A possible practical illustration of this would be to explain Positron Therapy as a method to identify damaged tissues, and then to ask students to think of other medical imaging methods that they might have encountered before, and what is their connection with the basic principles of quantum theory.

- **Step 9.**

The final step of this personal plan is focused on deciding what measures will be taken in order to measure the improvement of the specific aspect of the teaching practice that

I am aiming to improve, and how I can demonstrate this progress at the end of the UTP-ft course. This last part of the personal plan will be taken care by the following measures:

- As mentioned above, I will *improve my lesson plan preparation* in order to ensure more interaction with the students and avoid being perceived as distant.
- I implemented this and related measures in the second Teaching Practice Session, which I *carefully rehearsed* to ensure that I improved over the desired teaching skill.
- The feedback that I received from my peers about this second teaching practice session (in attachment) demonstrated that *I had managed to appear as rather more accessible and engaging* than in the first video recording, as was my original goal.

6 Report of the meeting during second video discussion

Next I turn to summarize the discussing that took place after the second video recording was made. The aim of this second video recording illustrate my progress in improving some of the weakness and limitations that were identified in my first teaching practice session. This video recording was shown also within my peers, from which I received as well valuable feedback. As I mentioned above Since I did not had any teaching scheduled between the first and the second teaching practice sessions, in agreement with the course instructor we recorded my presentation about the topic *“Assessing, Testing, and Evaluating”*, which I gave as part of the activities of the UTQ-ft course.

In the feedback forms that my fellow peers completed after the visualization of the video recording corresponding to the second Training Session, a number of positive elements that they appreciated were indicated. These concrete positive elements identified in my second teaching practice include the following:

- I showed good self-confidence.
- They appreciated the way I engaged with the classroom.
- A good use of the slides, looking at them and using them as visual support but not really reading them.
- I was relaxed, with a good voice modulation.
- Even if I said at the beginning of the presentation that I was not really familiar with the topic that I was going to present, I have the impression of being competent about the topic.
- I exhibited natural authority.
- I had a rather more friendly attitude as compared with the first video recording.
- There was a lot of information on the slides that people would read after the presentation to learn more about the topic.
- It was a well-structured and clear lesson.
- I showed good right hand movements and related body language.

- I made a good use of examples explaining the theory.

Of course, next to the positive elements there were also some flaws that were reported by my peers. Specifically, some of the concrete suggestions for improvement that I received after this second teaching practice session were the following:

- I put my left hand too much time in the pocket of my jacket during the presentation.
- I could have made more use of the space-movement.
- I might have interacted a bit more with the audience, for example asking questions.
- I still appeared a bit too serious/concentrated during some points of the presentation.
- I should look less towards the slides and more towards the audience.
- Some slides were a bit too crowded, less text would have made the slides more readable.
- I did not ask questions to the participants.

As was the case with the first Teaching Practice session, it is important to reflect on the feedback that I received from my peers and specifically on those aspects of my teaching skills that I aimed to improve in between the first and the second sessions.

Concerning the positive elements that my colleagues reported, perhaps the most important aspect of this second teaching practice is that most of them agreed that I had exhibited a rather more friendly attitude as compared with the first video recording. I was happy to receive that feedback since, as specified above in the *personal action plan*, I have put some effort to improve my teaching skills, in particular to make my teaching more accessible and engaging with the students. Some related feedback indicating that I had been successful in my goal was that related to the fact that I was relaxed and open, make good use of body language, and spend most of the presentation looking at the audience rather than focusing on the slides.

I was also glad to be told that despite the fact that I was not an expert on the topic that I was lecturing about, I managed to convey an impression of authority as well as of being competent in the subject. Moreover, my peers recognized that there was a lot of information on the slides that people would be able to read after the presentation to learn more about the topic, and that it was a well-structured and clear lesson. I appreciated this positive feedback since I devoted quite some effort into the preparation of this presentation. First of all, I read the book chapter and then researched by myself additional information on the subject

of “*Assessing, Testing, and Evaluating*”. Then I distilled everything that I had learned into a set of lecture notes that the audience (students) could use as supporting material for my presentation. Finally, I prepared together with my co-presenters a set of slides to help me as auxiliary visual material during my presentation. For reference, note that both the lecture handouts and the slides that we used for this second Teaching Practice session are included as appendices of the *Revised Course Design* assignment.

Of course, in any teaching practice there are also less positive aspects, but in any case the constructive criticism provided by my peers was quite useful to me. In this case, my peers indicated that first of all I could have interacted more profusely with the audience, for example asking questions or proposing some short group activity. This is a fair criticism, again related to the fact that when I am lecturing I am very concentrated in following the logical flow of what I am explaining, but sometimes I should step down and engage more in the interactions with the students. Another of the criticism was that I looked too much to the slides, instead of keeping more eye contact with the audience, and that some of the slides were a bit too crowded, making them not that readable. This second criticism can be explained by the fact that I am clearly not an expert on the topic of my presentation, so I need to help me with the visual content of the slides. This problem does not take place when I am lecturing about a topic of my own expertise, since in this case I refer very minimally to the content of the slides and only use them as a visual support to my speech.

7 Overall reflection about my Teaching Practice

In the last part of this Teaching Practice assignment, I have produced a report in which I have reflected on the progress that I have made in my *teaching practice as a whole*, as well as in *my chosen skill in particular*. Moreover, here I also describe what plans do I have to change and improve my teaching practice in the near future. Let me recall that, as discussed above, the specific skills that I aimed to improve is that of *being more accessible and embracing* to the students during the lecture.

Reflection about the contents of the UTQ-ft course. First of all, I would like to give my overall impression about the UTQ-ft course. I was at the beginning a bit skeptical of what I could learn in this course, since I considered myself already a rather good instructor. But I am very happy to have been proven wrong, actually the course was extremely useful to me and has opened very valuable perspective about how to improve my teaching practice.

To begin with, it has been a great experience to learn about the rather different teaching practices that my VU colleagues working in other departments and research areas have. Indeed, I am used to interact only with other physicists, and this of course is a bit restrictive since professors of the same field tend to follow the same teaching philosophy. And in this course I have interacted with engineers, economists, philosophers, and medical doctors, among other specializations, and seen that there are many different teaching styles. And more importantly, that there is always something important to learn in the way that my VU colleagues teach, and that I can implement in the teaching of my own physics courses. I find quite remarkable that I might be able to teach better physics by learning from someone that teaches say economic theory.

Secondly, I have greatly increased the range of *pedagogical tools* that now I have available to improve my teaching practice. In particular, some of the most important take-home lessons that I have learned during the UTQ-ft course include:

- The course assessment cannot be restricted to just an exam at the end of the course. This is against the ultimate motivation for assessment, which is to *provide feedback to both students and the instructors so that learning can be facilitated*. Is clear that if this assessment takes only place at the end of the course, there is not much room to exploit the information contained in the related feedback!

Instead, it is better to use a combination of more traditional (tests) and more innovative (out-of-class assignments, group work, short in-class activities) assessment methods,

which allow a more robust and transparent evaluation of the degree upon which the students have grasped the course objectives.

- I found particularly illuminating the idea of *embedded assessment*, a concept that means that a number of opportunities to assess student progress and performance are integrated into the instructional materials and are indistinguishable from everyday classroom activities. For example, quizzes, in-class exercises, or short group activities are both an integral part of the learning activities of the course, but can also be used to provide information about the overall assessment of the student progress.
- Learning now to properly write a *good course Study Guide* is also one of the main benefits of this course has had for me. While I had a fair amount of teaching experience beforehand, I had never had any formal training in how to design or organize a course, or how to structure the information that should be present in a decent Study Guide. And during the course I realized that there were many important aspects of a course that I was not including in previous study guides that I wrote.

In this respect, what I have learned at the UTQ-ft course has already helped me a lot in writing a revised study guide for a course that I taught earlier this year and that I will taught again next year. I realized in the process that the previous study guide that I inherited from last year's instructor was rather patchy and incomplete, and hopefully the new one that I have just produced will be more complete and therefore more helpful for the next batch of students.

- As I mentioned above, my *teaching philosophy* was very traditional, based on the extensive use of the blackboard for lengthy mathematical derivations, and moreover with limited interactions with the students. But something quite useful that I have discovered during the UTQ-ft course is that I do not really need to completely change my teaching practice: each teacher is different, and I should keep using the pedagogical approach in which I feel more comfortable. However, it is also true that I can and should *tweak* my teaching practice in order to make it more engaging with the students and improve their participation during the lectures.

And in this respect, during the course I have learned a number of new pedagogical tools of which I plan to make extensive use in my future teaching. For example, using online polling tools such as *Mentimeter* the students can participate live into a class discussion from their mobile phones in an anonymous way, which will help especially

the shy students or those students that are always afraid of giving the wrong answer, ensuring that they are really engaged in the class activities.

In addition to this, and I also realized that sometimes it is good to step down and give the students some minutes to work among themselves, for example discussing among them the answer to a specific questions instead of asking the question and expecting an immediate answer. Different students have different reaction times, and it is important that we teachers cater to the real diversity of our student population.

- My final comment concerning the lessons learned during the UTQ-ft course is the very high importance than *peer feedback* has. I really appreciated that, always with respect and attention, my peers provided very constructive criticism about how I could improve my teaching practice in various ways. As most people, I am the first to look to the other side rather than to my own mistakes, and their honest feedback helped me to realize some of the flaws of my teaching practice, which is the first step required to improve on it.

Specifically, following the visualization of the two video recordings, my peers identified that the main limitation of my teaching practice was that I can look too distant and not engaging, which with hindsight was something that I should have recognized by myself but actually never did. So in this respect peer feedback during the course has provided me with an invaluable resource to strengthen my teaching skills.

Reflections over improvements in my teaching practice. Following this initial set of impressions over what I have learned during the course, I next move to reflect on the progress that I have made in my teacher practice as a whole, as well as in my chosen skill in particular. This progress is measured between starting the UTQ-ft course and finishing the course. From my own (somewhat biased) point of view, my progress has been the following:

- I started the course quite confident on my teaching skills and practice, thinking that I already knew more or less everything that was needed to teach and not particularly interested in learning about new ideas.
- Thanks to the *peer feedback* during the two video recordings, I realized that actually there were an important number of flaws in my teaching practice, specifically that I did not interact enough with the students and that, while I gave an impression of confidence and expertise, I could also appear to be too distant and not embracing with the students.

- In parallel, I discovered that teachers from other departments of the VU had actually a rather different teaching approach from mine, and that there was a lot of things to learn from this different approaches. I realized that each teacher is intrinsically different, and that there does not exist an absolute best approach to teaching: the optimal strategy depends on the person, the context, and the subject that is being taught.
- As the course developed, I also realized that actually it did matter that I had never received a *formal training in teaching*, and had learned everything from experiences. I discovered that there exist a variety of different teaching methodologies that I was not aware of, and that I could and should use to improve my teaching practice.

Specifically, I realized that my teaching approach was focusing on presenting a given physics topic, but without monitoring whether or not the students were achieving a determined set of learning goals. So during the course I have received a formal training in teaching pedagogy that will be very useful for me in the future.

- Another aspect of the teaching practice that I realized that I was not properly dealing with is that related to the *assessment practices*. I used so far always the most traditional assessment method, based on a test at the end of the course. But I realized that this strategy was not really appropriate, since the ultimate motivation for assessment is to provide feedback about the student progress, and for this a single final test was not particularly useful.

During the course I learned that a multiplicity of assessment strategies beyond the traditional tests are possible and should be pursued, such as in-class and out-of-class tests, performance (authentic) assessment, the analysis of journal and research papers, portfolios, as well as embedded assessment. I certainly plan to use a combination of these more innovative assessment strategies in my future teaching practice, since I have convinced myself that they can provide a more robust and transparent information about the actual status of the student learning during the course.

- So to summarize, at the end of the course I believe that I have gained a series of skills and techniques that will make me improve my everyday teaching practice and make me a *better teacher overall*. I am therefore grateful to my course instructor and to all my colleagues during the course for a really fascinating and illuminating experience. I started the course thinking that I knew already a lot about teaching practice and

I ended the course realizing that I know rather little, but I have the tools now to systematically improve this situation day after day.

Reflections on future prospects. Finally, to complete this part of the *Teaching Practice* assignment report, I now describe what plans do I have to change and improve my teaching practice in the near future. In this respect, to keep enhancing my teaching skills and practice, I foresee adopting the following measures:

- I will record most of my future lectures, and show them to some of my VU colleagues, either from my own department or from some different department. The idea is that this way I can keep receiving external feedback about how I can keep improving my teaching skills: I have discovered using the UTQ-ft course that *peer feedback* is one of the most efficient ways to achieving this goal.

Incidentally, as a general rule I believe that it is rather beneficial for the students to be able to watch the recorded course lectures, this can be specially useful for revision or to verify if after some amount of self-study they are able to better digest the contents of a particularly challenging lecture. So for both reasons, in the future I intend to record as many of my lectures as possible.

- I am considering enrolling some of the *additional training courses* offered by the VU in order to keep improving my teaching skills. I have realized that this training opportunities provide important and useful formation, and that formal training is often important, since it teaches you things that simply cannot learn from hands-on experience and practice alone.
- Along the same lines, I plan to keep reading books that contain useful suggestions about how to improve my teaching skills, tips to optimize the assessment strategy, ideas about how to engage more with the students, and so on. For instance, the book that we read during the UTQ-ft course, “*McKeachie’s Teaching Tips: Strategies, Research, and Theory for College and University Teachers*”, provided me with a lot of useful and concentrated information with many interesting tips in order to improve owns teaching practices from a various number of points of view.
- I will keep experiencing with *new technological tools and methods* to make the learning experience more attractive to the students. While I was skeptical before, I realized during the UTQ-ft course that there are many relatively simple ways to exploit readily

available technology to create many activities to increase the student experience. The prototypical example would be the use of cell phones by the students to perform short in-class activities such as quizzes, polls, or even live discussions. The latter would be particularly useful since many students do not have confidence to participate in person in class discussion, but if they can join anonymously the discussion via their mobile phones, they would most certainly do.

- Finally, I will seek an experienced mentor among my departmental colleagues who will follow my development and growth as a teacher inside the VU, and guide me to keep improving my teaching skills. Experience is a very important asset in education, so this mentor will help me to keep focusing on improving my teaching and the way I assess my students.

8 Additional documentation

Attached to this report, the following additional documentation is included:

- The complete set of feedback forms provided by all my peers subsequently to the visualization of the two video recordings of Teaching Practice Sessions I and II.
- A copy of the assessment tool filled in by my tutor, Prof Piet Mulders.

Unfortunately I am not able to attach a sample of official student evaluations for the lectures that I gave as part of the *Van Quantum Tot Molecuul* course, since these evaluations were not collected that specific time. For any additional information about official student evaluation of my course, please contact Prof Marloes Groot, m.l.groot@vu.nl, the Director of Education of the Bachelor and Master Medical Natural Sciences.

Peer Feedback

Teaching Practice Session I

Juan Rojo

20/09/2017

Feedback form UTP

Feedback from:	Julia
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	20. 9. 2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	CLEAR, STRONG VOICE
2	VERY FOCUSED, NO DISTRACTIONS
3	GOOD FLOW IN THE PRESENTATION

Tips: Not more than three concrete suggestions for improvement

1	YOU LOOK VERY CONCENTRATED AND SERIOUS; YOU MIGHT WANT TO LOOK MORE FRIENDLY AND RELAXED SOMETIMES :)
2	TRY TO GET EYE CONTACT WITH STUDENTS (AS FAR AS POSSIBLE WHILE WRITING ON THE BLACKBOARD) MORE OFTEN
3	MAKE SURE YOU KEEP A GOOD STRUCTURE ON THE BLACKBOARD (BECAUSE YOU HAVE A LOT OF DRAWINGS, FORMULAS, ETC.)

Feedback form UTP

Feedback from:	Leonard
At the lecture of:	Jan
Learning goal/focus of observation:	
Date:	2017-09-20

Qualities: At least three concrete elements I appreciate in this lesson:

1	Very focussed. Good use of the board
2	Good at illustrating concepts
3	

Tips: Not more than three concrete suggestions for improvement

1	Too much talking into the board
2	Would use colors on the board
3	

Feedback form UTP

Feedback from:	Josh mayo
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	20-09-2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Enthusiastic expertise + clarity of voice
2	Good delivery and visual demonstration
3	Tempo allows students to follow

Tips: Not more than three concrete suggestions for improvement

1	Could do more facial interaction with students but subject matter determines delivery method.
2	Do more to ensure students actually follow the process
3	

Feedback form UTP

Feedback from:	ELISA
At the lecture of:	JVAN
Learning goal/focus of observation:	
Date:	20/09/17

Qualities: At least three concrete elements I appreciate in this lesson:

1	Good use of the blackboard → very well-organized
2	The Teacher looks focused
3	Excellent use of the notes

Tips: Not more than three concrete suggestions for improvement

1	Try to avoid showing your disappointment when the students are completely wrong
2	
3	

Feedback form UTP

Feedback from:	Phil
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	20 Sept 2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Excellent use of chalkboard
2	Choice of time to ask the question: after 2 cases, you ask about a 3rd.
3	

Tips: Not more than three concrete suggestions for improvement

1	Back to the students a bit too frequently.
2	Somewhat dry delivery. add a bit more energy
3	

Feedback form UTP

Feedback from:	JEDA YALCIN
At the lecture of:	JUAN
Learning goal/focus of observation:	
Date:	20/09/2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	The use of black board is really good.
2	Very self-confident, that makes it very good
3	

Tips: Not more than three concrete suggestions for improvement

1	→ Maybe you can make the content a bit more interactive
2	
3	

Feedback form UTP

Feedback from:	SASCHA
At the lecture of:	JUAN
Learning goal/focus of observation:	
Date:	20 TH SEPTEMBER 2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Good handwriting, good to read on the blackboard
2	Asks students if they can follow.
3	Shows very clearly with his hands where he is on the blackboard.

Tips: Not more than three concrete suggestions for improvement

1	You say 'so' a lot.
2	The response to the students reply seemed frustrated. Be more embracing.
3	Use more images/examples to make more engaging. Personalize 'the photon'.

Peer Feedback

Teaching Practice Session II

Juan Rojo

11/10/2017

Feedback form UTP

Feedback from:	Valérie Dupuis
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	11th of October

Qualities: At least three concrete elements I appreciate in this lesson:

1	look at the slides -
2	more R hands
3	evening day

Tips: Not more than three concrete suggestions for improvement

1	smile a bit more? look very serious
2	there is more to say
3	more in the room

Feedback form UTP

Feedback from:	Seda Yolan
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	11/10/2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	His self confidence was really good
2	The way he engages with the classroom
3	The use of slides, looking at them but not reading them

Tips: Not more than three concrete suggestions for improvement

1	I think he put his arm/hand too much (for too long) in the pocket.
2	
3	

Feedback form UTP

Feedback from:	Josh
At the lecture of:	
Learning goal/focus of observation:	?
Date:	11- 10- 2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Not reading slides
2	Relaxed Gestures
3	Good voice modulation

Tips: Not more than three concrete suggestions for improvement

1	more use of space - movement
2	more interaction with audience
3	Better connection with slides

Feedback form UTP

Feedback from:	Julia
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	10.11.2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	good pace of speech, good modulation
2	even if you said you were not so familiar with the topic, you gave the impression that you're competent to speak about the topic
3	natural authority

Tips: Not more than three concrete suggestions for improvement

1	still a bit "serious" facial expression ↳ try to look friendly sometimes (if you want)
2	try to look less towards the slides (although I understand it's a lecture, video)
3	you could try to interact more with the students from the beginning (i.e. using questions to get in contact with students)

Feedback form UTP

Feedback from:	SASCHA
At the lecture of:	Man
Learning goal/focus of observation:	
Date:	11. 10 . 17

Qualities: At least three concrete elements I appreciate in this lesson:

1	Friendly tone in comparison to first video.
2	Calm atmosphere in signaling that you are also learning about the topic.
3	Lot of information on slides for people to read after the class.

Tips: Not more than three concrete suggestions for improvement

1	Hands in the pocket makes you look very laissez-faire.
2	Too much text on the slides. Very hard to follow 'where' you are on the slide.
3	You speak about a topic you are not super familiar with. Practice the entire presentation at home

Feedback form UTP

Feedback from:	ELISA
At the lecture of:	JUAN
Learning goal/focus of observation:	
Date:	11/10/2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Well-structured and clear lesson
2	Friendly attitude of the teacher → hand in the pocket → make a nice joke about "developing"
3	

Tips: Not more than three concrete suggestions for improvement

1	Try to interact more with the students: 1) Move toward the class
2	2) Try to ask questions, 3) improve visual contact 4) try to "smile"
3	

Feedback form UTP

Feedback from:	Leonard
At the lecture of:	Juan
Learning goal/focus of observation:	
Date:	Oct 11, 2017

Qualities: At least three concrete elements I appreciate in this lesson:

1	Good right hand movements
2	Good use of examples explaining theory.
3	

Tips: Not more than three concrete suggestions for improvement

1	Hand in pocket makes you seem nervous
2	looking into the floor a few times, not connecting with audience.
3	