Fellowships for Innovation of Teaching 2016

End Reportages

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This document contains the end reportages of the fellows that were awarded a Fellowship for Innovation of Teaching on October 14th, 2015.
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Katja Loos
Faculty: Mathematics and Natural Science

The Fellowship

This project was the master work project of two of the HTSM honours master students that started in 2014. One of the purposes of the fellowship was to establish guidelines for the master work of the HTSM Honours Master (HCHTMW0105). By mentoring these two students but also the other two that were finishing their master work I was able to establish this for the next generation of students that will perform their master work in the next academic year.

The outcome of the fellowship gives a clearer view on the master work period in the HTSM honours master program. As this was the still missing part of the HTSM honours master set-up we are now finalized with the initial curriculum set-up and start with the fine-tuning.

The Community

I think the exchange of ideas is the most interesting and important benefit of the community. In this respect I hope that the google group will be used extensively, as many of us might not be able to attend meetings due to overfull agendas.

The Results

While we all use things coming from the HTSM sector in our daily life (in our homes, cars etc.) the concept is quite abstract. While discussing possible Master Work topics with the current students of the HTSM Honours Master the idea surfaced to develop an exhibition installation for Science Linx (http://www.rug.nl/sciencelinx/) explaining the core issues of the HTSM sector. This could be either a permanent installation that could be placed in the current exhibition in the Bernouliborg or an movable exhibition that can be shown at schools, science fairs, musea etc.

We decided to make a neuroprosthetics brain computer interfaces that can be very helpful in explaining basic principles of the HTSM sector and at the same time if easy to visualize. Brain signals, to be used in neural prostheses, can be recorded directly from the brain or scalp, or from muscle groups. For our project we chose to focus on recording brain signals from muscle groups. Neurons from the motor cortex connect to the spinal cord where they synapse with lower motor neurons. These lower motor neurons then synapse with muscle. When the brain decides to move a muscle, a neuron from the motor cortex fires an action potential which travels along these synapses until it reaches the muscle. The action potential
causes a chemical release at the synapse which can cause an action potential to occur in the muscle fiber if it reaches a certain threshold. This action potential causes a cascade of events which ultimately leads to muscle contraction. For this reason we can consider that the electrical potentials we measure from the muscle are brain signals. We were successful in producing a brain computer interface prototype which Science LinX or other exhibitions may eventually wish to include as an installation.

“The exchange of ideas is the most interesting and important benefit of the community.”
Nicolle Zeegers

*Faculty: Law*

**The Fellowship**

The Fellowship Videoclip collection Political Leadership was meant, firstly, to provide in a collection of videoclips concerning political leadership that could be used as material in lectures for courses in political science, history and the Masterclass Political Leadership. Secondly, the videoclip collection concerned is a collection in progress and aims to involve students actively in learning what political leadership entails by having them contribute new videoclips to the collection and stimulate them to elaborate on what theory about leadership is exemplified in a specific videoclip and what the clips tell us about how such leadership has developed in different contexts of place and time. Such active involvement in their own education process fits with the aim of our university to actively involve students in their own education. In addition, the choice to work with videoclips is not an accidental one: sharing videoclips is inherent to student’s social life and is one of the activities that forms part and parcel of their peer group community. The difference this Political Leadership project makes compared to their peer group community is that here the teacher is involved; by involving me or any other member of the university staff, we hope to create an academic community.

The first goal has been achieved, the result being a collection of more than eighty video fragments that concern political leaders, mostly from the Netherlands and the United Kingdom, who reflect on moments in and aspects of their leadership. The second goal still is to be fulfilled. Nicolle Zeegers will encourage students, primarily in the Masterclass Political Leadership but also in courses political science to contribute new videoclips to this collection. Also other staff will be invited to encourage students to do so. In order to help students and make sure the collection keeps its focus instruction, manuals have been produced, in written form as well as digital form.

**The Community**

In order to promote the continuation of the collection but also to make it possible for other fellows to gain material and knowledge from it, the fellowship will be presented to the community of fellows on 19 september 2016 (16.00 hours). In addition, the videoclip collection resulting from the fellowship will be made digitally accessible through an F-account on www.mediasalsa.rug.nl.

“Actively involve students in their own education.”
The Fellowship

The fellowship money was used to develop a specific methodology in year 2 of the "Projects Line" (formerly known as IC2I). In this 2nd year project, students have to conduct research on a topic of their own choosing, and present the results of this project in the form of an academic conference. Our aim was to develop a suitable methodology (project management protocol) that could be used for following editions of this part of the UCG curriculum. In order to aid us with this, we recruited a student assistant whose task it was a) to integrate digital tools in the preparation phase of the conference organization with a sub-group of students responsible for the technical preparation of the student conference, b) to conduct web-based research on project-based education with special attention for assessment (attached as annex to this report).

The project in year 2 of the UCG curriculum is a group-based effort that runs during the course of the entire year. The emphasis is on a student-driven approach. This approach allows students not only to identify, develop and improve required skills (competence) for particular projects, but also to attain the necessary expertise and knowledge (content) for their own projects. These skills, expertise and knowledge were acquired through workshops, the topics of which students identified themselves during the first part of the year and which enabled them to conduct their project research (on the one hand) and conference organization (on the other hand). Relevant workshops offered were on project management, professional profiling and communication, interview techniques and academic publishing in different disciplines.

The overall topic of the project line this year was societal sustainability, and the following projects were conducted (in groups of about 4 - 6 students each):

- Waste disposal in the city of Rome
- Water management in the city of Rome
- Immortality
- GMO foods
- European refugee crisis
- Smart homes technology

Projects (formerly called IC2I) year 2 (7.5 ECTS in second year). The insights about assessment of group-based, project-based assignments are relevant to all three levels of the projects-line (first 1, second year and third year).
The Results

The main outcome of this project was the development of a suitable and workable project management protocol that will be used fruitfully in the following edition of the 2nd year project (on the topic of "urban sustainability"). Students brought (theoretical) knowledge and insight from their various majors into their projects to address concrete and specific societal sustainability issues and problems in a manner that showed true 'ownership' (pride and excitement about their various projects) by the students of their various projects. This resulted in a truly collaborative, multidisciplinary project outcome for each group and for the cohort as a whole. We are investigating the possibility of publishing the best student articles in a suitable student-research-based medium (for example, the Honours Journal?). Furthermore, the importance of using digital tools and technology has become apparent in project-based education (especially collaborative writing, archiving and curating relevant research information accessible to the group, organizing the conference, PR dimension of the project, etc.). This is also supported in the research conducted by the assistant.

The 'edition' of the project this year has resulted in a revised project handbook with a significantly clearer structuring of interim assignments and project-management of the whole process in general.

The valuable work conducted by the student assistant might find resonance in a workshop topic to be presented to the next group/cohoot of students (integrating digital tools in conference/project organization and management).

- Running the project as we did allowed us as tutors to think critically and specifically about assessment in such a project-based, group-based setting. We found it especially fruitful to consider the (sometimes difficult) relationship between 'outcome' (product) and 'process' as dimensions of the assessment and evaluation process in such a group-based, project-based course. In this regard, the research done by our student assistant will provide valuable insight for our continued reflection on this topic, and development of a specific UCG-assessment approach. Important points to look at:
  - authentic assessment
  - self-assessment
  - peer-assessment
  - continuous assessment

The Community

Assessment of process-based outcomes is a thorny issue! We would like to develop more expertise in evaluating process aspects of project-based education and would welcome input in this area.
Implicit information is dissuaded. Students require explicit and explicated information along the whole process of the project. Assuming that students (2nd year Bachelors) will be able to connect dots of the process themselves, (or even be able to identify dots!) is too ambitious in most cases. The problem of time management was identified as an important obstacle to the successful completion of the project: students tended to become lost in the myriad of smaller activities that they needed to conducted (in a critical-outcome manner) as part of the larger process. Also the research process in itself (with its potential lack of boundaries) was at times frustrating to the students. Proper supervision (in the form of guided reflectivity on the process) and tutor and peer feedback are useful instruments to structure and manage the process.

At the University College we have organized a session with the Teacher of Excellence recipients to present and share their projects and outcomes (28 June). The protocol of the project has been written down in a handbook, which will be used as supervising tool by the tutors of the next edition of the project. We would like to invite our student assistant to present the insights he gained from working with the students on the digital/online platform creation part of the project in the form of a workshop to the next cohort of students. The research report of the assistant will be discussed during a tutor meeting with the new cohort of UCG tutors during the month of October in the framework of UCG assessment policies (organized by the Board of Examiners of the UCG).

“Start very early with recruiting a student assistant! We had some trouble finding a suitable candidate, but are very satisfied with the assistant we appointed in the end!”
Marieke van Vugt
Faculty: Mathematics and Natural Sciences

The Fellowship

The main aim of my TEF was to examine the potential of Tibetan monastic debate in teaching students. To get this started, I made two trips to India to investigate Tibetan monastic debate. In addition, I experimented with some of the techniques derived from this debate in my Honours College Tutorial the Portable Laboratory. In the first trip, my colleagues and I predominantly observed debates, collected the first EEG data and built a theoretical model of the cognitive and emotional skills that are being trained by debate. In the second trip, we started to test this theoretical model by means of EEG, behavioral tasks, and questionnaires. We also had a lot of conversations with the Tibetan monks about what exactly they were doing, and we tried it out a little bit ourselves (see picture). On the basis of this information, I will experiment further with the techniques in next year’s Portable Laboratory tutorial and next year’s Research Methods class (Artificial Intelligence bachelor). Another potential application avenue may be the course on Buddhism taught in the Religious Studies department by Stefania Travagnin. This will be sorted out at a later stage.

Outcomes

Over the course of our project, we have learnt that Tibetan monastic debate may improve (1) comprehension of the material, (2) logical reasoning, (3) planning, and (4) emotion regulation. We have started to test these claims in a series of behavioral, neural and self-report experiments. We have also learnt more about what the practice of debate actually entails.

While the specific physical form is the thing that is most obvious to outsiders (see picture), there is also a very distinct logical form to the debate. In contrast to what we know as debate in the West, here the aim is not to convince the opponent of your position, but rather to expose inconsistencies in their reasoning.

Figure 1: Here I myself was challenged to debate about neuroscience such that I could get a feel for what debate is like.
The debate starts by the challenger (the standing person) putting forward a topic, and then making an assertion about this topic. In fact, usually the debate starts by reciting one or more definitions, and then making assertions about these definitions. An example statement that the defender makes could be “all cows are black because it is night time.” In other words, s/he always mentions a proposition and a reason. The challenger (seated) then has only a few response options: s/he can agree, s/he can state that the reason does not prove the proposition, or state that the reasoning is faulty. On the basis of this, the challenger either further expands on the reasons or goes on to make more propositions. The trick is that the challenger can state whatever s/he wants, while the defender has to maintain a consistent position. As such, the debate practice is an excellent way to explore the students’ understanding of definitions. For example, in my Research Methods course, students could ask each other about the definition of p-values, then discuss various situations in which they are used and explore difficulties in that definition (such that they realize how confusing p-values actually are!). Another important property is that debates have to go move really fast: neither challenger nor defender gets a chance to think for a long time about their responses. If necessary, the challenger and defender repeat their previous statements, such that at least the debate keeps its momentum (Liberman, 2015). This has the added benefit that the to-be-studied material is rehearsed and therefore will be remembered better. Finally, we learnt that the clapping movements that accompany assertions in the debate serve to invigorate the minds of the debaters. Even without the formal logical structure of debates, this could be very interesting to use in an educational context to make the students more engaged.
The Community

On the basis of my experience so far, monastic debate is a very interesting technique that could potentially serve to enliven academic education by providing a situation in which students have to really know the material (to be able to debate), as well as training them in critical thinking and exposing inconsistencies in thinking. Probably the best way to bring these practices to fruition would be to develop a dedicated course in this style of debate, following for example the manual developed by Perdue (2014). Yet, even without too much training, simply adopting the gesture of clapping to mark statements and assertions during debate could already serve to invigorate and enliven learning.

The most important thing that I learnt while experimenting with monastic debate techniques in my class is that students really need to have solid expertise in the topic before it’s going to work. Without this expertise, it is not possible for the debate to proceed with its characteristic speed and vibrancy. As such, this technique should only be applied to topics in which students have been well-drilled. In fact, I think it could serve as a motivation for students to study thoroughly (just like it does for Tibetan monastics), because without solid knowledge they will not make a good appearance in the debate.

The fellowship has made it clear to me that the techniques of monastic debate has tremendous potential in increasing critical thinking and embodied learners. However, more research is needed to make this applicable in the classroom situation. I am therefore planning to make several additional trips to India, and I hope that with sufficient additional funding, I will also be able to bring an education expert along one time who can help to derive good educational principles for classroom use. Once I will have acquired sufficient experience in this technique, I would be delighted to give practical workshops for anyone who would be interested in using these techniques in their own classrooms.

“This technique should only be applied to topics in which students have been well-drilled.”
Louise Meijering
Faculty: Law

The Fellowship

I used the FIT fellowship to redesign the module Bachelor Honours Module Analysis of Research Processes, which was held in semester 2A, February – April 2016. In its new form, the module aimed to let the students find out the ethical implications of doing research on students’ activity spaces. The rationale behind the project was to challenge the students to learn by doing. I did not tell them too much about the methods they were to use in advance, but rather led them find out things themselves. The idea was that they would discover the ethical implications of doing research using, for instance, GPS-tracking, by participating in a project as both researchers and participants. Throughout the project, I encouraged the students to reflect on their experiences, both as research participants and researchers.

The students combined three ‘obtrusive’ methods:
1) GPS tracking, for one week; outdoor activities were tracked;
2) Diaries in which the activities were recorded;
3) In-depth interviews, in which the activity spaces resulting from the GPS tracking were discussed with a fellow-student.

The taught Bachelor Honours module, Analysis of Research Processes, consisted of seven plenary meetings and one meeting with two separate groups. In the first meeting, the module was introduced and the GPS-trackers were handed out. The students used the tracker for one week, while simultaneously filling out a diary format. After this week, the data were transferred and edited in ArcGIS. The five students formed two groups and interviewed each other based on the GPS- and diary data.

In the original plan, the idea was to include in-depth interview training in the module. The students however indicated that they already had had extensive interview training in the second year Bachelor Honours Module taught by dr. Bettina van Hoven. The students noted that they wanted to learn more on conducting Focus Group Discussions (FGD’s), and I
decided to incorporate that in the module. Therefore, in the second meeting, I gave the students a FGD training, in which they practiced with moderating a FGD. In the third meeting, a FGD was conducted by the student assistant on the substantive findings of the GPS data, diaries and interviews. Then, we had separate meetings with two groups of students, during which we discussed the preparations for the upcoming meetings (FGD and seminar). In the fourth meeting, two students conducted a FGD on the ethical implications of the research for this module; in the fifth meeting, three students organised a seminar on ethical considerations with Research Master students. The sixth meeting was focused on data analysis, as a preparation for the last assignment. Finally, we held an evaluation meeting after the module had been completed.

There were three assignments in this module: a paper on the substantive findings of the research (individual, 30%), an article for a popular geographical journal on the ethical implications of mixed-method research (in pairs, 50%), and two peer reviews on each other’s assignments (individual, 15%). The final five percent of the grade could be obtained through active participation.

**The Results**

During the course, the ideas of the students about the ethical considerations shifted significantly. At the first meeting, the students said to have no problems with the use of GPS-trackers for this module. It was only during the interviews, that they realized how rich and detailed their data were. This led to more abstract reasoning on ethical implications during the second FGD, in which not only personal experiences as both researcher and participant were discussed, but also other GPS-based research, and questions with regards to informed consent: can a respondent be fully informed on the richness of the data? And how does a researcher ensure anonymity when GPS-trackers are used? The discussion also led to critical self-reflection, where the students reflected on their own ethical conduct in previous research.

In order to connect the Bachelor Honours and the Research Master and for the opportunity for knowledge transition, three students organized a seminar on ethical considerations in GPS research (the sixth meeting, early April). They did so, building on their own experiences and
used a case study in which researchers used the GPS data of 500 smart phone owners, without their full consent. The seminar allowed the students to rethink their gained knowledge into transferable knowledge, while simultaneously providing the Research Master students with new frameworks on ethical considerations.

The original plan had been to organise this meeting as part of a Research Master course in September 2016. However, I felt it would be more timely to organise it as part of the Bachelor Honours course, in April. I think this improved the coherence of the module.

**The Community**

Teaching the course has been a very positive experience for me. It was very interesting to see how the students became increasingly critical of the tasks they were asked to perform, asking questions about data storage, informed consent, publication ethics, their own conduct in research, and so on. Also, the interaction between the Bachelor Honours Students and Research Master Students was interesting to observe: the Bachelor students were clearly ‘on top’ of the topic, and they made the Research Master students think more critically about research ethics in general, and their own research in particular. Furthermore, I am pleased that two of the five Honours students decided to continue their studies in the Research Master programme offered by our Faculty.

I would recommend future fellows to think well about the ways in which they want to use the financial resources, or the tasks that they would like the student assistant to perform. For our cohort, I think the time for dissemination activities has been relatively short. I would dissuade fellows from being too ambitious in the dissemination activities they would want to pursue.

To contribute to the FIT community, I did an informal presentation of my project during one of the FIT meetings. I have four further dissemination activities planned:

- A short video for the University’s Youtube Channel on the value of teaching ethics through learning by doing, to be communicated through the University’s FIT community and Intranet. My students are also enthusiastic about this idea.
- A lunch seminar for the staff at our Faculty, which I plan to organise together with the students who participated in the module.
A publication in the professional journal Geografie. The article will be published jointly with the students and student assistant. The students are very enthusiastic about this idea.

If feasible, I would like to write a paper for the Journal of Geography in Higher Education on the project, again jointly with the students. Here, too, the students are enthusiastic, and I think this would be a great outcome of a project in which the focus has been on the collaborative learning experience.

“I would recommend future fellows to think well about the ways in which they want to use the financial resources, or the tasks that they would like the student assistant to perform.”
Gerard Renardel de Lavalette  
Faculty: Mathematics and Natural Sciences

The Fellowship

The Fellowship was intended for the Honours College tutorial that I developed in 2014, gave again in 2015, and intended to give in 2016. It has the title In search of solid truth: the crisis in the foundation of mathematics around 1900. Starting point is the graphic novel Logicomix. It tells the story of the crisis in the foundations of mathematics around 1900 in an original way, focusing on the life of Bertrand Russell. In the tutorial, the relevant mathematical ideas and developments are investigated more deeply.

The Results

The intended outcome of the Fellowship was: a collection of texts that explain the relevant logical and mathematical theory on the right level for a Honours College tutorial: neither too simple nor too difficult. So the contents of my oral presentation of the relevant logical and mathematical issues in the tutorial will be also accessible in written form.

To realize this, I had a student appointed as teaching assistant during the first half of 2016. For this position, I selected Irina Chiscop, an excellent Mathematics student who participated in my Honours College tutorial in 2014. She wrote cq. translated the following texts:

- The crisis in the foundations of mathematics around 1900 (summary)
- The crisis in the foundations of mathematics around 1900: tutorial 1
- The crisis in the foundations of mathematics around 1900: tutorial 2
- The crisis in the foundations of mathematics around 1900: tutorial 3
- Recursion (short paper about the theory of recursive functions)
- A or not A: logical or not? (short paper about intuitionism)

Moreover, Irina Chiscop participated in the tutorial of 2016.

I am very satisfied with the outcomes. The documents prepared by Irina are very useful and were highly appreciated by the students who took the tutorial. Moreover, Irina acted as a kind
of intermediary between the students and me, providing me with recommendations which the other students did not communicate to me directly.

**The Community**

Preparing and giving a Honours College tutorial is great: you get an audience of bright and motivated students, so you have the opportunity to present quite advanced stuff. The temptation is to do too much and to go too fast, overstretches the knowledge and skills of the HC students. It may help to team up with someone in an intermediate position: a master or a PhD student. (S)he may help you in preparing material and in deciding what can be done successfully in the tutorial and what perhaps not.

As indicated already in the application, the possibilities to share the results are limited, due to the rather elusive nature of the subject matter (foundations of mathematics). But I think that my experience, as described above, may be of use for colleagues who are involved in Honours College tutorials.

"The temptation is to do too much and to go too fast, overstretches the knowledge and skills of the HC students. It may help to team up with someone in an intermediate position: a master or a PhD student."
Dries Faems
Faculty: Economics and Business

The Fellowship
We have applied the Serious Lego Play methodology in the following courses

1) Master Honours (2 sessions)
2) Innovation & Organization course with the Strategic Innovation Management master (2 sessions)
3) FIT meeting (1 session)

The Serious Lego Play methodology is an innovative way of engaged teaching. The grant has allowed me to further fine-tune the method (supported by certified Lego consultant) and to buy additional resources (i.e. specific Lego bricks)

The Community
Avoid too much abstract thinking/discussing about innovative teaching. Try to stimulate/support people who are actually doing something innovative in class.

FIT-meeting June 28th
Jan Albert van Laar  
Faculty: Philosophy

The Fellowship

I have used this fellowship to make an educational method in development, called Meeting Ground, suitable as an educational method for excellent students in higher education and at high school. Between January 2016 and July 2016 the teaching assistant has worked on the following tasks.

1. To make an inventory of educational methods and teaching material close to our method (debate formats, negotiation games, U.N. simulations) in the field of critical thinking, civic education, moral education, business negotiation, and the like, so as to embed our method in the field.

2. To develop a lesson package tailor-made for Social Science (‘maatschappijleer’) for excellence programs at high school level, also in cooperation with teachers and other students.

The teaching assistant has made an inventory of related methods, as found in various educational fields, and in different countries. This has enabled me to locate my method more clearly, and may provide a basis for something like a business case, if needed.

He has applied the method in a meeting with Honours college students, enabling them to deliberate on the desirability of the succession of Turkey to the EU.

He has assisted me in a meeting with about 8 teachers of Social Science at high schools, with the aim of discussing the merits and problems of the method Meeting Ground.

He has developed a lesson package of three hours, meant for use in “maatschappijleer” (Social Science). Further, he has applied the result on a high school (HAVO 4, Harlingen), and improved the lesson package, also based on the commentary received from the lecturer.

My teaching assistant has fulfilled all these tasks brilliantly.
The Community

The teaching assistant and I plan to promote the lesson package further in the field of Maatschappijleer, and will contact further organization to that purpose in the next few months. Further, when finalized, we publish the lesson package on the website, and I will prepare a presentation for a critical thinking conference.

The method has been, and will be further shared among colleagues, by inclusion in courses in various study programs: BA philosophy; MA Business; MA Industrial Engineering; BA University College; MA Honours College

“The method has been, and will be further shared among colleagues, by inclusion in courses in various study programs.”
Ben Giepmans
Faculty: Medical Sciences

The Fellowship
We generated an e-learning module for structure/ function in medical biology. We will use the new teaching module below in the new curriculum, e-learning with two new modules that now make use of the so-called software versatest. These will be widely applied in LS&T, Medicine, PhD studies and the Topmaster program.

The Results
New modules have been developed for e-learning:
Via: www.nanotomy.org
Teaching in general: http://www.nanotomy.org/OA/Education/
Module1: http://edubox.nl/InstructieAXP.aspx?cid=52814&pid=902
Module2: http://edubox.nl/InstructieAXP.aspx?cid=54219&pid=931#top

The Community
Try to have fte delivered to new fellows, i.e. give assistance, not money.

With the fellowship project we not only have a scientific, but also professional educative modules of unbiased, computer-based learning of basics in cell biology / biomedicine. We will disseminate this during seminars, use it directly for teaching and share with other universities (see weblinks above).

“Nice initiative. Continue!”
The Fellowship

The grant was used to develop and teach the course “Science Data/Data Science” for the University College Groningen.

SDDS was developed as an examples course and consisted of a small “chalk-and-talk” component in addition to a large variety of student activities (presentation, literature research, lab work, computer simulations, discussion, poster preparation, peer review). See https://www.rug.nl/ocasys/ucg/vak/show?code=UCGSC102 for full description.

The course was explicitly developed to fill in the science/physics part of the new Liberal Arts & Science curriculum at UCG.

The Results

The course has been designed, worked out, and taught as described in the application. It has since been formally evaluated by the students (as excellent) and the UCG program committee, which advised to consider adoption to SDDS teaching approach for other skill-oriented courses. Orienting discussions have been initiated with the “Research & Methodology” coordinators and will be continued.

The Community

@fellows: Just do it! And always make sure to involve students in the process as early as possible. Don’t be afraid to experiment in a way that you think is way over the top, and also don’t be afraid to admit failure (do so early, so that the damage is limited).

@university: create (way!) more appreciation for (excellence in) teaching and make sure that those that are willing to experiment can get the means and opportunity to do so and stimulate (not force!) those that don’t to change their mind through opportunities, not threats. Make teaching attractive, not a burden. The FIT grant scheme is an excellent initiative and should be expanded. Excellence in education should be more valued as an option for career advancement.

@fellows: do not neglect research, because in the end that is what gets you promoted, not (excellence in) teaching.
@university: do not considering educational innovation as something that teachers will do by themselves. Innovation requires serious investment, in time, financially, and in creativity. Don’t use a stick to realize innovation, rather a carrot. The FIT grant is a prime (and lonely) example of the latter.

An (informal) discussion of the work done with the FIT grant was planned during one of the FIT meetings. Unfortunately this get-together was cancelled for lack of participation. I will certainly be available for a future gathering. The SDDS teaching approach was also discussed in a seminar held at UCG with other FIT awardees, teachers, and tutors.

"Always make sure to involve students in the process as early as possible."
Ellen van der Werff  
*Faculty: Behavioural and Social Sciences*

**The Fellowship**

The fellowship has been used for the course ‘Social aspects of sustainability’. This is a broadening course of the honours college consisting of weekly lectures, a summer school, and an ‘atelier’ in which students conduct their own research. The fellowship was used for the lectures part of the course. The goal of this fellowship was to activate students of the honours college in the course Social aspects of sustainability to a greater extent to improve their learning environment. Furthermore, the goal was to further increase the integration of research and practice in the course.

During the Biennial Conference on Environmental Psychology, that was held from 24 – 26 August 2015 in Groningen, keynote lectures from experts in the field were recorded. Furthermore, interviews were held and videotaped with experts in the field. To activate students we selected fragments from these keynotes and interviews for flipped classroom lectures. Before the start of the lecture we asked students to watch the video fragments and then answer questions on it via Nestor.

Furthermore the fellowship was used to increase collaborations between research and practice in the course. Together with Groningen Bereikbaar we developed a case study for the course. Groningen Bereikbaar is a co-operation between governments and business in the North of the Netherlands. Their main goal is to keep the city of Groningen accessible when large infrastructure projects are being realised. This was presented to students. The students worked on the case study, and worked on the following questions: How can social science help to address this problem? Which theories or constructs would be most applicable to this case study? The outcomes were shared with Groningen Bereikbaar.

The integration of research and practice ensures that the course addresses those aspects that are most interesting from a practitioner’s perspective. The increased practical relevance of the course is very much appreciated by the students and is likely to increase their involvement and further actively involve students in the course and in the field. The interaction (e.g., in the flipped classroom) and hands-on activities such as working on the case study for Groningen Bereikbaar further increased active involvement of students.

**The Results**

A flipped classroom was developed for which the above mentioned interviews and lectures (see [https://www.youtube.com/channel/UCdJFuGRnT8uQqctwDN2Ot3g](https://www.youtube.com/channel/UCdJFuGRnT8uQqctwDN2Ot3g)) were used. A case study was developed in which students applied theoretical insights to the case study of Groningen Bereikbaar. Groningen Bereikbaar explained.
These outcomes activated the Honours students in the course Social aspects of sustainability. They actively engaged with the materials instead of passively listening to lectures. The students learned to critically reflect on the learned materials during the discussions in the lecture. Furthermore, the integration of research and practice provides students with the skills to learn how to translate questions from practice into scientifically relevant research questions. Also, they learned to translate research findings into practice by working on the case study and making outcomes relevant for the practitioners. This stimulated higher order learning goals, namely the integration and implementation of knowledge to a practical domain.

The flipped classroom and case study were developed. Based on the student evaluations the methods will be further improved to make them more effective in teaching students the necessary skills. The integration of research and practice will help to develop the curriculum by focusing on those sustainability aspects that are relevant from a practitioner’s perspective. It will help to further develop theories explaining these aspects.

**The Community**

Students enjoy the integration between theory and practice. By applying their knowledge to real life problems students become active and motivated. Finding case studies where students can apply their theoretical knowledge is a perfect way to stimulate the activation of students and thereby stimulate higher order learning goals, namely the integration and implementation of knowledge to a practical domain.

I have participated in several of the FIT meetings discussing the use of the fellowship. The materials are being shared with the developers of the new master Environmental Psychology and will be integrated in their teaching.

“The fellowship was used to increase collaborations between research and practice in the course.”
The Fellowship

We used the FIT Scholarship to develop a new masters course for the FEB on “Energy Innovation and Transition”. We hired some students from the current cohort – specifically, students that were interested in and working on energy and energy innovation – to help us to develop this course, and over the period of the Scholarship. We gave them the task of designing the course, in terms of content, and course material, and then sat with them to discuss the content that they had suggested.

The Results

We used the student assistants to help design the course. By doing so, we: (1) confirmed that the content that we were intending on teaching was the most relevant and up-to-date, for future masters students, and (2) provided the excellent students that we had hired with the opportunity to research the topic, and to discuss the content with the course providers. In doing so, we used the FIT both to help future students, and to develop the skills of current excellent students.

The Community

I would recommend future FIT scholars, and the FIT programme in general, to focus on directly realizable goals. Instead of worrying about abstract concepts, and instead of trying to revolutionize teaching, FIT should be used to help good, and innovate teachers, better.

I have shared the benefits of my FIT in a number of ways:

By involving excellent students, we have empowered them to dig deeper into a topic that interest them, and to sit and to discuss those topics with the course providers.

By developing a new course with these students, we have ensured that the masters students at the FEB can benefits from a truly state-of-the-art course.

By involving other teachers and course providers in the process, we have ensured that other academics at the FEB could also benefit from the FIT.

“Focus on directly realizable goals, instead of worrying about abstract concepts, and instead of trying to revolutionize teaching.”
Aline Klingenberg
Faculty: Law

The Fellowship

The Fellowship for Excellence of Teaching enabled me to set up a course in datamining and profiling. The main goal of this course is that the students explore a lot of the aspects of this subject and in the meantime learn about the legal aspects of datamining and profiling. The grant was used to employ a student assistant who assisted me in finding literature and making assignments for the students. It gave me the chance to experiment with law courses, in the way that we abandoned the law books and started with the values that (should) underlie this new technique.

In the end, the students had to find out by themselves what would be the most optimal way to regulate the new technological possibilities on the subject of datamining and profiling, while taking into account all interests concerned. To their surprise they found out that a lot of their conclusions about important principles and values are also implemented in the upcoming EU Regulation on Data Protection. The ‘value driven’ way of teaching instead of the ‘blackletterish’ way of teaching law proved a success. In the end the students produced and presented a wonderful piece of work.

The Results

The fellowship was used to set up a new deepening Honours module, Recht en Samenleving II. The intended result was to encourage students to find answers to legal questions and societal dilemmas themselves and not, what we typically do in law courses, start with reading texts in law books. In order to do so, we provided the students with a lot of material, articles and assignments to start with. The students had to find out, which principles on societal equality and fairness are important in the subject of profiling. In order to do so, they started working on the different assignments, both individual and group wise. We discussed the results of their research during the classes. These group discussions were held during classes.

Apart from this ethical quest for answers, the students followed two classes, on the possibilities with datamining on the data held by the ministry of education. These classes were taught by a privacy officer and an ICT architect of the ministry of Education and enabled the students to learn which data are held by large organizations and which technical possibilities exist to get more information out of these data. The students also learned about the future possibilities with data and the wishes large organizations have when it comes to the value of data.

After the group discussions and classes the students wrote a report in which they elaborated on the subject. They presented their results in the Board Room of DUO, for an audience of staff members of the Ministry of Education.
The staff members of the Ministry were very impressed by the results of the students. The students were enthusiastic and expressed their wishes for a follow up on this course. The work done, especially all the work done by the student assistant, provides for a good basis for this course in the coming years. I can conclude that the intended innovations were implemented before July 2016, and that we will follow up on them the next years.

The Community

I attended a meeting with other fellows in which we discussed each other’s projects. During this meeting I mentioned that it is easy to experiment with new forms of teaching with small groups of enthusiastic Honours students. More challenging however I find implementing new ways of teaching in my regular teaching in the bachelor Dutch Law. In this bachelor I teach more than 600 students in a subject they might not always like but is a prescribed course in this bachelor. As one of the goals of the Fellowship is implementing this way of teaching in the University as a whole, this is a subject I still struggle with. On the other hand, being able to experiment with new ways of teaching inevitable leads to a different approach in other courses, because of the experiences one gains with a different approach. However, I have not yet implemented this experience in the regular curriculum.

“The staff members of the Ministry were very impressed by the results of the students.”
Erin Wilson  
Faculty: Law

The Fellowship

I have used my FIT to hire a student assistant to help me develop case study materials for teaching Honours students about the complexities of religion, politics, gender, law and personhood in contemporary politics. Case study teaching is a method that has been used in International Relations. A specific incident is taken and described in a dynamic way and students are taken into the action, becoming part of the processes and having to think about all the different concerns the different actors take into consideration when they are arriving at their decisions. It is a great way to give students an opportunity to put the theory and abstract knowledge they have learnt into practice. Students have to be extremely well-prepared, be able to think on their feet, develop arguments in response to specific situations and then reflect on the processes and outcomes. It is particularly effective with excellent students, because it takes them out of their comfort zone a little and challenges them to think and learn in different ways.

To date, this method has not really been applied in religious studies. Consequently we have developed materials for an iconic, recent and highly influential case – the Hobby Lobby case in the United States - that deals with specific issues on religion and public life. The case materials will be utilized with students in the forthcoming run of the broadening module Religion and the Public Domain for the Honours college. While this case is especially relevant for religious studies, it is also relevant for law students, political science students, business and economics students and medical students (as it deals with abortion and the provision of healthcare insurance), so there are possibilities for the case to be used by other teachers in other courses and faculties. I also hope this case will provide a model for the development of future case study teaching materials on religion and public life, for cases from the European Court of Human Rights, for example.

The Results

Last year I introduced the Hobby Lobby case as a role play in class for my students. They really enjoyed it, but the feedback I received was that the role play could have been more structured. There is a lot of information on this case and it was difficult for them to identify what was most relevant and what was not. What these case materials do is distill down the most important questions raised by the case and the key issues at stake. It does not tell the students what to think about these and it leaves room for students to identify other additional issues, but it makes the information more manageable for them.

As such, The main innovation this excellence fellowship has enabled me to do is have concrete materials for the case study that I can give to my students that are more focused than existing sources of information and enable us to have clearer learning goals and outcomes. Having already
trialed the case study once meant that the time of my student assistant could be more focused, and also that she was able to speak with students from my class and get their feedback and advice on how to design the materials, so they are more focused and directed to the needs of students themselves.

**The Community**

I would highly recommend new fellows include students in the design of their teaching innovations, and also that they try to experiment with their idea first before utilizing the FIT funds, so as to maximize the effective and utility of the grant.

I will make the teaching materials available for others teaching on related topics in other faculties and departments, as well as my own faculty. If the Honours College are willing, I would also be happy for them to share the materials with the fellows network.

“Include students in the design of their teaching innovations, and also (...) experiment with their idea first before utilizing the FIT funds”
Selection committee

The fellowships were awarded by the selection committee, consisting of the following professors:

- Elmer Sterken, Rector Magnificus, honorary chair
- Hanny Elzinga, Dean Honours College, acting chair
- Maarten Duyvendak, chair Honours tracks in Arts
- Hans van Ees, Dean University College Groningen
- Harry Garretsen, Chair UoG committee BKO - SKO
- Peter Groote, chair of Honours College Committee of Bachelor Education
- Debbie Jaarsma, prof of Education Innovation
- Ritsert Jansen, Dean Talent Development
- Lou de Leij, Dean Groningen Graduate Schools
- Greetje van der Werf, prof of Educational Science

Han van der Strate will act as secretary to the committee.
### Organization

#### Fellowships for Innovation of Teaching - Organisation

<table>
<thead>
<tr>
<th>Han van der Strate</th>
<th>Vera Buijs</th>
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<tbody>
<tr>
<td><strong>Office hours</strong></td>
<td></td>
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<tr>
<td>Friday: 14.00h-16.00h</td>
<td>Tuesday: 09.00-11.00h</td>
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