Deep approaches to learning and constructive alignment - Redesigning the course "Economic geography"

Christine Benna Skytt-Larsen

Department of Geosciences and Natural Resource Management

Introducing the study

In block two 2014/2015 I was the course responsible and teacher in the course 'Economic Geography' for the first time. As teacher I saw it as my prime task to create a vibrant and aligned learning environment in which the students wanted to understand the details and underlying structures of theoretical and societal economic geographical structures and changes. To achieve this, the students' preconditions, preferences and approaches to learning need to be well-adjusted to the teaching context and intended learning outcomes (Biggs & Tang 2011*a*).

In the literature a distinction is made between surface and deep approaches to learning (Ramsden 1999, Biggs & Tang 2011*a*). A surface approach is characterized by a shallow cognitive level in which learning is driven by routines and an aim of meeting the requirements (e.g. examination requirements) instead of a wish to understand the subject matter. On the other hand, a deep approach to learning is characterized by an active attempt to understand the matter of learning, the details and the underlying ideas of the teaching. Students' approaches to learning are mediating variables dependent on their perception or experience of learning, and the learning outcome is affected by the chosen approach (Illeris 2003). Thus, students have different preferences in their approaches to learning, and according to Biggs & Tang (2011*a*) sound learning occurs when the personal preferences and preconditions of the students interact with the teaching context and intended learning outcomes (ILOs). Teaching and learning activities (TLAs) that focus on activating the students will lead to greater

opportunities for engaged and reflective students which then results in deep learning and learning outcomes of high quality. More students achieve deep learning when the teaching is constructively aligned (Biggs & Tang 2011*a*). Constructive alignment is a pedagogical model with focus on the connection between ILOs, TLAs and evaluation, and how these components affect learning (Mørcke & Rump 2013). The model is based on a constructive understanding of learning implying that the learner actively constructs his own knowledge. The ILOs of the teaching must specify both the TLAs the students should engage in to meet the outcomes as well as the academic content of the TLAs. It is then the task of the teacher to create a learning environment that encourages the students to engage in the TLAs, and to evaluate the students' learning according to the ILOs. Constructive alignment is achieved when ILOs, TLAs and evaluation are aligned (Biggs & Tang 2011*a*).

At the given time, I was not allowed to rephrase the ILOs or the examination format for the course, and therefore I had to account for the existing study programme when planning my teaching. Following the theoretical arguments outlined above, this study investigates if and how it is possible to stimulate deep learning and achieve constructive alignment in a course with pre-given ILOs. Explicitly, the study explores how students from the course 'Economic Geography' evaluate the different TLAs used in the teaching and whether or not these lead to deep learning approaches and a feeling of constructive alignment.

In the following pages, I first present some general information about the course 'Economic Geography'. Second, I describe the TLAs I have used in the course and how these are intended to the pre-given ILOs and examination format. Then I present some of the results I gained from doing a focus group interview with six students from the course, followed by a discussion of these results and my own experience. Lastly, I conclude the study with some reflections on my future teaching tasks.

The course 'Economic Geography'

The course 'Economic Geography' is an elective course at the third year of the Bachelor's programme in Geography and Geoinformatics at University of Copenhagen (see appendix A for ILOs). The format of the teaching is student-activating classroom teaching two times three lessons per week,

equalling 7.5 ETCS. The exam form is written, namely a 30 hours individual essay.

In block two 2014/2015 I was the course responsible and sole teacher at the course. I planned the curriculum in cooperation with the former course responsible, while I have planned the actual teaching and learning activities on my own. 14 students followed the course.

Teaching the course 'Economic Geography' - the use of teaching and learning activities

It was the first time as course manager for the given course; therefore I had many considerations on how the course was related to the overall Bachelor's programme in Geography and Geoinformatics. Specifically, I thought about which academic level of knowledge on economic geography I could expect from the students. I the study programme it is phrased that an academic level corresponding to the compulsory courses at the Bachelor's programme in Geography and Geoinformatics is recommended. However, experience from former colleagues showed that students with other academic backgrounds often followed this type of course. Therefore, I was aware that I could not expect all students to know about geography specific theories or concepts. Consequently, in the first lesson I used a lot of time to get knowledge of the students' academic preconditions and throughout the course I made sure to ask if anything needed more explanation. Moreover, and as an effort to attain constructive alignment, I always repeated central concepts and theories, and put them in to perspective in relation to the geography education and the ILOs for the specific class as well as for the course in general. This is in line with Johannsen et al. (2013) who argue that a clear statement of the objectives of the topics presented in teaching are crucial for the students to engage in the teaching.

Understanding and arguing for different economic geographical approaches, theories, concepts and methods was highly weighted in the teaching as in the overall ILOs for the course. The TLAs I designed for the course was therefore based on dialogue and activity. Namely, in the beginning of every class I gave short dialogue-based lectures including small breaks for reflection and discussion with the neighbor student; every second class a group of 2-3 students gave (guided) presentations on specific topics or articles. Two times during the course I gave the students an opportunity to do individual written assignments which reflected the formulation of the essay

question of the exam to practice their writing skills. The writing was done in the students' spare time and it was optional to do them. The essays were given peer-feedback from fellow students in class and common feedback in plenum from me. Furthermore, in every class I planned some kind of group work - the students spilt up in small groups and discussed parts of articles, figures or arguments sometimes to be followed by discussions in plenum while other times the small groups was then divided into other groups - matrix-groups - and then they explained/articulated the subject discussed in the first groups.

The format for the exam was a 30-hours essay based on a pre-given subject. Therefore, the TLAs I planned for the teaching were designed to make the students construct their own knowledge about economic geography through articulation and argumentation – both through student presentations, group work and in the written assignments. My intention was that these different TLAs would stimulate the interest for economic geography among the students leading to deep learning approaches, and assure constructive alignment between the ILOs, TLAs and evaluation of the course.

Findings and analysis

To evaluate whether the students felt that the course was constructively aligned, and if the chosen TLAs – or some of them - stimulated deep learning approaches, I invited the students to a focus group interview two weeks after the exam. Six of them agreed to be interviewed. The interview lasted two hours and took place in a teaching room at the geography section at IGN. In the interview I asked the students to discuss the different forms of TLAs that were used in the course and how these resulted in their approaches to learning. Moreover, I explained the theory of constructive alignment and asked them to discuss if they felt that the ILOs, TLAs and exam format were aligned, and if there were any specific initiatives they could point out as decisive.

We started by discussing the dialogue-based lectures given by me. The six students all agreed that starting each class with these short lectures was helpful as they set the scene for the topic of the day. One student said: "Almost every time we sat there, and you gave the lecture, I experienced a kind of an epiphany", while another one said that: "It was a quite an intense course, and therefore the lessons were necessary, especially when you repeated the core themes from last time and told us how they related

to the next texts we had read, as they helped me understand them better and relate to the topic of the day". However, it was also stressed that the lectures were great because that were structured around the ILOs of the day, and because they were held short.

Secondly, we discussed the student presentations. The meanings about this TLA were more diverse. Some of the students really liked doing presentations because they felt that they learned much from articulating the arguments and explaining the core concepts to fellow students. While others didn't like it that much, as one student explained: "...to me it was much more about the responsibility – actually I felt like I was presenting for the teacher instead of the class – like an exam. I don't like being the center of attention". Regarding other students' presentations the meanings were also diverse; some felt that it was a waste of time, since many of the fellow students were bad at communicating the central points of the texts, while others felt that getting core concept explained by peers made them more understandable. The conclusion was that the profit depended much on the presenters' ability to present ("not talking inwards") and prioritize and articulate important arguments.

All the interviewed students agreed that working in small groups discussing parts of a text, figures or arguments was fruitful, as explained by one of the interviewees: "Group work is nice. Discussing an academic argument with peer students made me feel more assure that I understood it correctly, and I was therefore more comfortable articulating my ideas in front of the whole class afterwards", and another one followed up saying that: "...when being divided into small groups I felt responsible to add my comments to the discussion, while in discussions with the entire class it was easier to 'hide' and remain silent". Also TLAs in which the groups had to produce things, like drawing time lines of the field etc. were highly liked. However, group work with matrix group discussions was a clear favourite among the interviewees: "I was a huge fan of matrix-groups. It was the first time, I experienced matrix-education, and I love it. It was really really great to feel that you have discussed sometime throughout and then being responsible for teaching your peer students and they doing the same for you". Another student agreed and uttered that the reason why the matrix-TLA was better for him than doing plenum presentations after group discussion was "...the informality in matrix groups (...) Sitting in a small group and being responsible for teaching the other students focus is on your oral argumentations and not on stating the right argumentations on a power point, it is just a different approach, but to me it felt so much better and I learned so

much more from that". On the other hand, another student said that he was not that big a fan of the matrix-TLAs because then he only heard the argument from one peer student, and then he couldn't be sure that it was right "I was more comfortable when doing plenum discussions because then I could always be sure that you would be there to moderate the answers and arguments".

Three of the six interviewees did both of the written (optional) essay assignments, while one interviewee did only write the first one, and two didn't do any. The ones whom did both of the essays uttered that they learned from doing it, as one of them said: "In class we learned how to express our arguments orally, but by doing the essays assignments I also learned to express myself in written form, and that was a great motivation to me. Also because when doing an essay I had to be very clear in my argumentation since the reader was not there to respond immediately as in an oral discussion". The one interviewee who did only one of the essays saw it more as a direct preparation for the exam: "First of all, it was great because I then understood the format of an essay exam. Secondly, it saw it as a way of understanding your ideas of what was important in the exam situation". However, they all agreed that peer feedback followed by common feedback from me was not enough: "It is always nice to hear others' opinions on your work. However, it is not my fellow students who will mark my exam essay – It is you, therefore I would have liked to have more personal feedback from you", and another interviewee uttered that "the fellow feedback was much more about spelling and articulation mistakes instead of feedback on structure and understanding, thus I felt that the peer feedback was more or less useless". One of the students who chose not to do the written assignments argued that there was not enough time to do them between homework (also from another course) and uttered a wish of replacing some of the curriculum with the assignments, while the other one wanted them to be mandatory because: "When I prioritize my time, I always do the required stuff first and honestly, I'd rather watch a movie than write an essay. However, in hindsight, I wish I would have made them, so to me it would have been great if they had been compulsory. Maybe if you have integrated the essays into the course a little more I would have felt that it would have been necessary to make them and that would have been a motivating factor for me".

Finally, I asked the interviewees if the felt that the course was constructively aligned and if they could point to specific initiatives that helped this. First of all, they said that they felt that there was great alignment between

the course description in the study programme and the content of course. The interviewees all found some kind of alignment in the course; however, their opinions on what made the alignment were diverse. One student uttered that the fact that I started every class with starting the ILOs of the day, relating them to the texts and the TLAs was a big help to him: "...it really made the purpose of the class, and the entire course, very clear to me. And when I was doing the exam essay I realized how helpful this has been because it was so much easier for me to remember which parts of the curriculum were important in my different arguments – I have actually never felt so prepared for an exam as I did for this one." Another student, however, felt that stating the ILOs in the beginning of a class and then returning to them in the end seemed "a little clichéd"; however during the exam "...it became clear to me why you did it". Yet another student felt that it was needless as he forgot about them during class. Another student agreed and said that in the beginning of the course, it actually scared him "I have never experienced a teacher stating the ILOs before, and then when I forgot them during class it was like 'Oh no, I forgot the purpose of what I'm doing'... But then I got used to it, and realized that they were not that important".

Many of the interviewed students felt that they that the fact that I used the last class to elaborate on how the course fit into the entire study programme was useful for them, while an interviewee, who followed the course as part of another education than geography, had – obviously - difficulties in seeing this course as constructively aligned with the rest of his study programme. However, he uttered that he found the course quite interesting and wanted to make use of his knowledge on economic geography in the remaining time of his education. Some of the interviewees argued that the different types of TLAs seemed well-chosen and that fact that it was stated on a power point why the specific TLA would guide them to understand a specific concept or theory and why, was what helped them in seeing the course as aligned. And the fact that the TLAs involved student activity and discussion "helped me see – and construct – the bigger picture".

As a final point, we discussed the exam and its alignment with the course. Most of the interviewees were unhappy with the format. They felt that 30 hours for writing an essay were too short not leaving enough time for reflection. However, while some of the students argued that an oral exam would have been fairer as it would have reflected the teaching better, others felt that the written form was fine because of the written assignments during the course: "then I knew how to do it".

Conclusion - learnings and perspectives for future teaching

Based on my own experiences and the focus group interview with six students, I conclude that the ambition of stimulating deep approaches to learning in the course in Economic Geography was reached. Introducing different TLAs focused on activating the students stimulated their engagement and interest in the field. However, as argued by Biggs & Tang (2011*a*) students' preferences in learning approaches differ which were also shown by the discussion of different TLAs in the focus group interview with the students; some students were happy about presenting in front of the class as it helped them clarify their argumentations while others liked the matrix group TLAs more. Moreover, in a course like this with a mix of academic preconditions amongst the students, this may also influence a variety in approaches to learning. Thus, my conclusion is that it is important to introduce a variety of TLAs during a course – or even in a single lecture – if you wish to engage as many students as possible.

The interview showed that even though I had to stick with the pre-given course description and ILOs, the students felt that there was alignment between the course description, the content of the course, and the different TLAs. This was one of big greatest concerns when taking over the course because I changed the curriculum while leaving the course description unchanged. In my attempt to attain constructive alignment I realized that I had to break down every class into little pieces and think about the ILO of every text, activity, and discussion and then formulate overall ILOs for every specific class and relate them to the overall ILOs of the course. It took a lot of effort, and even if I've taught many classes before I have never been so detailed and structured about my teaching before. However, as the interview showed the hard work was fruitful especially articulating the ILOs for the day in every class, and I will use this approach for my future teaching both in courses where I am allowed to change the course description and in courses where the framework is pre-given.

In the meantime, constructive alignment is achieved when ILOs, TLAs and evaluation are aligned (Biggs & Tang 2011*a*, Mørcke & Rump 2013), and as the interview showed, many of the students did not see a written exam as aligned with the rest of the teaching and learning styles in the course. I was much aware of this before I started teaching the course because the ILOS and the format of the course (2·3 hours weekly seminars) emphasized oral discussions. I therefore introduced the written assignments

as an attempt to get constructive alignment. However, not all students saw these as satisfying. A solution to this could be to make the assignments mandatory and integrate them better in class including using more time on feedback. In the future when I have to teach courses with a pre-given framework and exam format I believe this will be a good solution, and if I'll be allowed to change the course description on this course, I would change the exam format to a final oral exam possibly with ongoing evaluation in form of small written synopses on the central themes of the course as I believe that would make the course better constructively aligned.

A Intended learning objectives of the course 'Economic Geography' stated in the course catalogue

Knowledge: Localisation theories, economic competitiveness, the spatial organization of production, innovation, labour, technological development, urban and regional development, regulation, socioeconomic networks, global economic flows.

Skills: Students can expect a throughout theoretical explanation of the following topics:

- General patterns and interdependencies in global economic flows, and the relationship between economies and politics including the significance of regulation

- Central theories on urban and regional development

- The significance of labour for the spatial concentration of economic activities and to combine this with knowledge on regulation of local labour markets

- Differences and similarities in the economic integration of Asia, Europe and North America, and the increased post-war tendency for regionalization including the economic and political role of the nation state.

Competences: To apply methodologies, analyse and evaluate results and data in relation to the spatial organisation of production and regulation of global and local economic conditions.