

Improved Teaching by Changing Approach and Practice

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Compared to previous year's teaching performance, I attempted to improve this year's teaching performance by deliberative employment of a new set of teaching tools and changes as a part of a project in the adjunktpædagogikum course given at University of Copenhagen 2011. The tools and changes included problem based learning, careful review and update of materials and lectures, alignment between intended learning outcomes, student activities and evaluation, and employment of a broader set of student activities ranging from engagement in class-room discussions to group based exercises and student presentations. The performance was measured by successive student- and self-evaluations. The student evaluation indicated an improvement in my ability to communicate the course content clearly and precisely and my ability to motivate student reflections on course content. The self-evaluation, based on my perception of the teaching experience, also indicated that the employed changes sustained a higher and more rewarding teaching performance. Reflections upon evaluations also indicated further potentials for improvement.

Teaching at the UFUG course

Recurrently, I teach at the 15 ECTS master course 'Urban forestry & urban greening' (UFUG) offered by Forest and Landscape, University of Copenhagen. At the core of the UFUG course, the students are assigned a case-based task where they are required to elaborate a strategic development and management plan for a public park. The course has over the years been

successful in attracting an increasingly number of students. My lectures are focused on different inter- and multidisciplinary topics regarding management, policy, quality and services, organisation and governance of urban green structures and spaces. The topics are explored through lectures, readings and exercises. I basically approach my topics as they are situated within Public Administration as this is my educational and professional field. However, the topics are not at the core of students' main curriculum as they are a mix of landscape architects, forest engineers and urban planners. This is always challenging as the students typically has little or no initial knowledge or understanding of my professional field, applied perspectives and/or practical vocational experience.

Last year's teaching experience

My experience with teaching and engagement of students at the UFUG course has formerly been mixed. Sometimes I succeed in engaging students in the topics I taught. I am not sure why and how this happened, but it was clearly a more rewarding experience for the students and me when it happened. Other times the students seemed rather uninterested and unengaged in my teaching and the presented topics. I didn't felt that the students really learned anything in these sessions. This didn't felt good for me and affected me negatively at a professional and personal level. It also took up a good deal of energy and worries before entering the teaching situation.

Student evaluations of last year's UFUG course (2010) (Fig. 16.1) showed that not all students were equally satisfied with my teaching (Fig. 16.1, Q2) and my ability to engage them in 'deep learning' indicated by the level of student reflections (Fig. 16.1, Q3). However, the students still found that the topics I taught had importance and relevance (Fig. 16.1, Q1). Moreover, in comparison, the student evaluation of my teaching was the poorest among all teachers that taught regularly at the UFUG course in 2010¹.

Under and after the course I sometimes thought that not all of the students were truly motivated and/or able for learning at the high level required at the University. Other times I started to think that my teaching not really fitted the mix of student we got at the course or that my teaching skills and style simply wasn't that good. However, the poor evaluation also became a puzzle for me. I have made good presentations before and in another main

¹ Student evaluation of other teachers are not shown

Question 1: I find that the material used by the teacher fits with the content of the course.			
Question 2: I find that the teacher was good to communicate the course content clearly and precisely.			
Question 3: I find that the teacher motivated me to reflect upon course content.			
Evaluation (score)	Number of replies (weight)		
	Q1 (N=17)	Q2 (N=17)	Q3 (N=16)
Totally disagree (1)	0 (0)	1 (1)	2 (2)
Disagree (2)	0 (0)	6 (12)	4 (8)
Neutral (3)	4 (12)	6 (18)	7 (21)
Agree (4)	6 (24)	1 (4)	1 (4)
Completely agree (5)	7 (35)	3 (15)	2 (10)
<i>Average scores</i>	4,2	2,9	2,8

Source: University of Copenhagen, Absalon, UFUG course evaluation 2010

Fig. 16.1. Course evaluation by students (UFUG 2010)

course (technical park diploma – a vocational training course) my teaching is normally received very well by the students.

Challenge to be addressed

With the outset of the mediocre teaching performance, indicated by the evaluation above, I addressed the following challenge for myself as part of the adjunktpædagogikum course:

“How can I improve my teaching in a way so that the teaching are more rewarding for all and engage the students in real learning where they improve their knowledge and competencies regarding the topics I teach”?

In order to address the challenge in a systematic way, I implemented prospective ‘improvements’ (changes and tools), based on insights from the 2011 adjunktpædagogikum course, in the 2011 UFUG course and observed the effect of these by comparing the 2010 evaluation with a the 2011 evaluation.

Documentation

I suspected that any improvements (or failures) should ultimately be indicated by changes in the students’ evaluation of the UFUG 2011 course compared to the UFUG 2010 course and in my self-evaluation of the teaching experience. Student evaluation was available through the web-based learning environment ‘Absalon’ at LIFE, University of Copenhagen. Students

were asked in the end of each course to evaluate the course in general and each teacher's performance. In general, there are differences from year to year in the characteristics of the students (such as educational and personal background, their number, and group dynamics). These differences may influence how different teaching approaches are perceived and evaluated. I therefore combined the comparison of student evaluation with a self-evaluation of the employed changes and my experience of the students' engagement and learning.

Methods for change

In the past (2010 and before), I mainly used a mix of case-based materials and a more traditional teaching style. This included class-based 'mass lectures' where I presented and discussed various materials based on academic articles and high-level theory and concepts. The students have also been required to read course literature in advance. Lectures have been open for shorter Q&A sessions, but I have only to a minor degree used different techniques for activating students in the class room.

At the 2010 course I sometimes engaged the students by asking a question or tried to start a discussion in the class about perspectives I assumed to be important. I didn't try systematically to set up small group exercises or similar as a part of my teaching at the course. This was partly due to the inherited structure of the overall course and partly due to routine choices on my behalf.

In order to address the challenge, I adopted insights from problem based learning (PBL), constructive alignment (CA), including various techniques for student activities, and sociological insights on the teaching situation such as shifting from level 1 ('blame the students') and 2 teaching ('blame the teacher') toward a level 3 ('improve the situation') focus in teaching (Biggs & Tang 2007, pp.15-21). PBL takes outset in a presented problem that can only be adequately solved by the students by further deliberation and search for knowledge. PBL was used in both individual lectures and for structuring activities running over several days. I used PBL as much as possible to spur learning and engagement instead of using traditional lecturing and presentation of general theory and assumptions. CA was mainly addressing student activities, learning intentions and formative evaluations by students. Due to the structure of the UFUG course, alignment of my part of teachings with the overall learning assessment at the end of the course

(summative evaluation) was only possible to address and change in a minor degree.

First of all, insights on the teaching situation gave me a framework for understanding myself, the students and our interactions in the educational context of higher education. It was helpful to get the ability to see the teaching situation as a part of modern mass education with different levels of student's motivations and capabilities while going beyond a 'blame the student and/or blame the teacher' attitude. The challenge was now to change the situation, improve techniques and adapting the teaching for a broader range of student's motivations and capabilities. These insights gave me the basis which upon I could see myself acting and changing my teaching in a rational and deliberative way. It allowed me to think differently about myself as a teacher and the students.

In 2011, I used more time for preparing each of my lectures and exercises in the course. I asked the course planner for a re-schedule of my lectures and exercises in order to fit in better with the overall program. It was also important for me to get a good first encounter with the students. For this purpose, I re-shaped a lecture and practical exercise on mapping recreational experiences in public parks (see appendices for course materials for exercise 1). Firstly, I reduced the level and amount of information and content in order to create a clear focus instead of a more comprehensive review as part of the introduction. The theory and planning methods in the literature on the subject was therefore not covered fully in the lecture. However, this gave me the advantage to go in depth with one planning method as an introduction to the overall literature and as a case of the basic challenge of recreational planning. The prospective student would still be able to dig into the literature in later self-studies or in thesis writing (or future vocational positions). The corresponding exercise was organised as a group task and also reduced in scope in order to let the students learn and discuss the material in greater depth. The lecture and exercise on recreational experience mapping were evaluated in the process as part of the learning through student presentations, this is, 'formative assessment' (Yorke 2003). The students were 'socially motivated' by the need to perform presentations in front of the class.

The example above illustrates my attempt to improve the teaching by utilizing a range of changes and tools. More generally for the 2011 course, I employed a broader and more diverse range of student activities across lectures and exercises. Before each teaching, I used time for carefully selecting and preparing student activities such as short talks in groups, using

familiar cases as reference for class discussions, open questions to the class. For one lecture, I also used audio-visual materials (a video) in organising a short group exercise and facilitate class discussions.

This year's teaching experience

If we look at the student evaluation in figure 16.2² compared to figure 16.1, there is indication of improvements in terms of clearer and more precise communication of course content (Fig. 16.1, Q2) and my ability to stimulate reflection upon course content (Fig. 16.1, Q3). The figures for Q2 and Q3 for 2011 and 2010 respectively indicate a change from a slightly below average performance to an adequate performance. There was no change in the students' evaluation of the materials' relevance and fit with the overall course (Fig. 16.1, Q1). In both 2010 and 2011, the materials were found relevant. However, the distribution in replies for Q2 and especially Q3 may indicate that some aspects in my teaching can be further improved. A few students disagreed in my ability to motivate reflections upon course content while the majority agreed or strongly agreed. Thus, not all students were engaged in deep learning at the same level through my teachings.

Question 1: I find that the material used by the teacher fits with the content of the course			
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Question 3: I find that the teacher motivated me to reflect upon course content.			
Evaluation (score)	Number of replies (weight)		
	Q1 (N=12)	Q2 (N=12)	Q3 (N=12)
Totally disagree (1)	0 (0)	1 (1)	0 (0)
Disagree (2)	1 (2)	0 (0)	3 (6)
Neutral (3)	2 (6)	4 (12)	2 (6)
Agree (4)	3 (12)	4 (16)	3 (12)
Completely agree (5)	6 (30)	3 (15)	4 (20)
Average scores	4,2	3,7	3,7

Source: University of Copenhagen, Absalon, UFUG course evaluation 2011

Fig. 16.2. Course evaluation by students (UFUG 2011)

² The course evaluation in 2010 and 2011 had different response rates. While almost all students evaluated the course both generally and for each teacher in 2010 only about one third evaluated the course at the level of each teacher in 2011. The low response rate in 2011 can partly be explained by occasional IT problems with the online web based platform. The general evaluation in 2011 was very positive by those who responded.

My main ‘reflexive’ student activity was placed at the same time as the students should prepare presentations for the course’s major group project (a thesis used in the final course exam). The exercise was highly demanding as it was based on an open problem formulation, open methods and open answers (see appendices for course materials of exercise). This is what Ellström (2001) calls ‘a creative exercise’. A creative exercise requires a high degree of ‘framing’, this is, responsibility on behalf of the students for selection of 1) content, 2) sequence, and 3) pace of learning activities. I believe that not all students found sufficient time or had the ability to focus equally on both activities as the needed to prioritize between the two activities. It is then indicated that improved planning and alignment of the different student activities within the overall course would be likely to improve the students’ reflexive level in my part of the teachings.

Hints for the distribution in replies for Q2 may be inferred from my self-evaluation and student comments given as part of the evaluation. In 2010, there were several comments on my performance regarding a relatively poor oral presentation, slow pace of presentation, and lack of a more assertive and insisting approach. In 2011, this was not a major issue, but there was still one (minor) comment that suggested me to be more assertive in the class room. This comment seems to be in line with earlier comments and highlight an aspect that I need to be aware of and address in my teaching. After peer feedback and reflections, the lack of assertiveness may be interpreted as rooted in a need for a clearer goal direction. This may be handled by improving the explicit learning goals and their formulation for each lecture.

My self-evaluation for the UFUG 2011 course is based on my impression of and experience with the group of students. Clearly, this year I felt much more confident when entering the teaching situation as I was well-prepared and had a plan for my overall approach and individual lectures. As the course went on I felt confident in the teaching situation and in my interaction with the students. Not all lectures had the same level of engagement and intensity. I noted this was the case in presentations of more theoretical and unfamiliar (for the students) course content in research-led teachings, but these moments was clearly out-weighted by the more engaging and rewarding experiences. However, the experience with more research-led teachings, such as transfer of basic knowledge, also indicated an area that can be targeted for future improvements. Again, several options are available such as employment of ‘peer-instruction’ or ‘think-pair-share’ teaching techniques.

Conclusions

In general, I am content that the employed changes and tools seem to have improved my teaching performance and the student learning. It is not possible to say which part of the changes and tools that have contributed most to the observed improvements. However, the insight that I, as a teacher, can draw upon a flexible set of professional understandings and tools have given me a sense of empowerment, capacity and professionalism I didn't had before. This will hopefully also allow me to cope with new teaching challenges in the future.

A Exercise 1

Group no.
Find and tell about experiences in the park

Your key experience: Richness in species

RICHNESS IN SPECIES	SHORT INTERPRETATION	IMPORTANT CHARACTERISTICS/ACTIVITIES
	Sensation of richness in plants, insects and/or animals.	Presence of different or special plants, flowers, insects and/or animals. Possibility to gather mushrooms, fruits etc.

Exercise

- **Walk around** in Frederiksberg Garden. **Identify** differently located areas with the same **key experience** (experiential zones). They may be very different, but still stimulate the feeling / sense of the same key experience.
- You need to **tell the other groups** in the class **about one experiential zone** in a way that invokes the sensation of the same key experience for the listener. Select one zone and **create a short story** (max 4-5 minutes) that can do that. Use a description as an aid. Choose one in the group who can tell your story.
- **Description:** 1) Characteristics, features, facilities, possible activities and uses, and your personal sensations and impressions.



Map of Frederiksberg Garden

Your notes:

B Exercise 3

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Exercise 3 – Dealing with challenges in public management of urban green spaces

Learning aims:

- Knowledge of managerial options
- Understanding of how to act
- Ability to propose and discuss solutions

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You are:

- Full of green ambitions and possesses a true public ethos
- Endowed with a green heart and want to promote innovative green space service of highest standard for local communities, business, schools, health, environment and your city in general
- Graduated with the best educational background as a master in UFUG
- The newly employed head of the park department (you're the boss)

You got:

- An old and large green structure consisting of numerous city parks, local parks, forests, water fronts and surrounding nature areas.
- A prosperous city in growth with high pressures on land use and risk of urban sprawl.

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...but the condition of your parks is...

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... and your managerial situation...

- Timeworn colleagues (average +25 years in the organization)
- Defensive attitudes toward park services among colleagues ('we take care of what we got – and that is it')
- Work environment characterized by lazy or stressed attitudes
- Rigid organisational culture based on professional competencies (no collaboration or communication among units and colleagues)
- The in-house maintenance provider have a huge budget and do what the like (i.e. nothing)
- External budget pressures: declining funds for staff, consultancy, investments and maintenance
- No explicit standards for the city's parks and green spaces
- Continuous increase in complaints from citizens (e.g. grass jumping in seed)
- No public involvement besides answering complains in the phone
- Negative or no local media coverage (only about anti-social behaviour)
- No political attention or support for green space service

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Your initial analysis tells you that you are caught up in negative dynamics

- 1 Reduced budgets (Political decision)
- 2 Poor quality and service levels
- 3 More complaints / dissatisfaction
- 4 Management focus on catching up
- 5 Lack of policies for high quality services
- 6 No awareness of green-space values

...and you are afraid that the city will end up with plenty of green deserts and ghost zones ripe for being converted into land for development

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What will you do to change it?

Each group need to present a 'rough managerial strategy' that can change the situation.

The strategy should include and discuss:

- Which managerial tools and option to use – why these tools and options?
- A step by step sequence of actions – why these steps?
- A list of whom and how to engage – why or why not engage?
- Highlight possible trade-offs and priorities in alternative actions

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C Manager's tool box – Inspiration for managerial actions and organizational change

Public involvement options

- Questionnaire
- Consultation process
- Citizen panel
- User panel
- Consensus conference
- Future workshop
- Internet based discussion fora
- (Focus group) interviews
- PR campaign
- Information materials

Governance options

- Politicians and policy-makers
- Managers and other professionals / experts
- Public at large, interest groups / users and non-users
- Landowners, media, businesses
- Jointly acting in the *Policy Arena*
- Stakeholder and interest analysis

Policy and strategy options

- New vision, mission, strategy, policy, aims, actions, status, support, relations
- Green space strategy / development plans

Valuation option

- Social, ecological, economic, and environmental benefits
- Cost-benefit analysis

Market and management options

- 'Hands on' professional knowledge (e.g. freedom to manage)
- Explicit standards and performance measures (defined services and quality)
- Emphasis on output controls (e.g. performance management)
- Organizational re-design / disaggregation (e.g. purchaser-provider split)

- Greater use of competition (e.g. contracting out, free choice)
- Private sector styles of management (e.g. TQM, PR, branding)
- Greater budgetary discipline (e.g. penalties)

Organisational reform options

- Change of structure, processes and culture

Branding options

- Marketing
- Service branding
- Place branding
- Local branding
- Internal/external branding
- Identity e.g. 'green city'
- Competition and attractiveness

All contributions to this volume can be found at:

http://www.ind.ku.dk/publikationer/up_projekter/2011-4/

The bibliography can be found at:

http://www.ind.ku.dk/publikationer/up_projekter/kapitler/2011_vol4_nr1-2_bibliography.pdf/