

Teaching Sabbatical – Final Report

Päivi Jokela

Ph.D., Associate professor in Informatics at Linnaeus University (LnU)

Teaching sabbatical at the Department of Computer Science and Engineering,
The Chinese University of Hong Kong (CUHK)

Autumn term 2014

Introduction

I spent my teaching sabbatical at the Chinese University of Hong Kong (CUHK). The University was founded in 1963, based on three constituent colleges and the main campus is even today based on the college system. Colleges can be residential, and through joint activities they enhance the communication and interaction between students and teachers. The colleges also offer General education courses as a complement to subject specific education.

Today CUHK is a bilingual University that has eight Faculties: Faculty of Arts, Business Administration, Education, Engineering, Law, Medicine, Science, Social Science, as well as Graduate school that offers postgraduate programmes leading to master's and doctoral degrees. Number of students in 2013 was 18698; 15314 in undergraduate (UG) and 3384 in postgraduate (PG) programmes. Approximately 90 percent of the UG students and 55 percent of the PG students are from Hong Kong. What is more, CUHK has student exchange with 31 countries, most exchange students come from mainland China and USA, ca 45 students were from Sweden in 2013.

Preparation and planning

My teaching sabbatical began with a weeklong trip to Hong Kong and a visit to the Chinese University of Hong Kong (CUHK) at the end of March. I was accompanied by my husband who was also going to stay in Hong Kong during the entire autumn semester. The CUHK visit included a meeting with Prof. Fung and Prof. Tao from the Department of Computer Science and Engineering (CSE) as well as a campus tour and a brief visit to Morningside College where we had our accommodation during the autumn semester. The CUHK's Office of Academic Links (OAL) kindly and effectively arranged the visit, and we were able to complete the program on the same day.

The most interesting part of the planning visit was to agree on the teaching assignment. Together with CSE representatives, we studied the preliminary course list for autumn term and I identified a course title that seemed to be suitable for my competence, *Business Information Systems*. We also found out that this course did not have any other teachers assigned to it, and indeed the course had not been given in couple of years. Therefore, it also seemed to be an appropriate choice for the Department and hypothetically an interesting elective course for the students.

The tricky part was that there was no course syllabus available and that the syllabus had to be approved by the Faculty Board by the end of that week, in order to be able to include the course in the autumn teaching schedule. So I spent the next two days to compose the course syllabus, which was an intense but quite rewarding experience. Fortunately, the syllabus structure was similar to the ones we use at Linnaeus University and, on a practical note, the number of lectures and tutorials per week was pre-defined and based on the number of course credits.

In hindsight, the course content was probably a bit too ambitious and the reading list should be revised, but the overall results seem to be good enough given the short preparation time. I'll come back to this notion when the course evaluation is discussed.

After the course syllabus was completed and approved, we spent the rest of the week familiarizing ourselves with Hong Kong and its immediate surroundings, using the excellent public transport system.

Settling in

We arrived in Hong Kong on the 18th of August and the autumn term started on the 1st of September. The practical procedures were very well organized, we could move into the apartment at Morningside College right away and at the CSE I got my own office, computer and e-mail accounts as well as a staff card that allowed access to all campus facilities. It was a bit more challenging to arrange the access to facilities for my husband, as I was not considered as permanent staff. Eventually, he could use the sport facilities but the University Library was strictly for students and teachers - which is of course an interesting discovery as we are used to consider libraries as public spaces.

Generally, I am very impressed that the start was so smooth, everything was well prepared and the administrative and technical staff was both effective and sincerely helpful. It is worth noting that the computer account and e-mail worked impeccably from the very beginning, and during the whole semester there was only one incident that required additional help from the IT-technicians. I also soon found out that the teachers' tasks and responsibilities were quite similar to those of Swedish university departments.

Tasks and responsibilities

Business Information Systems was an elective undergraduate course, 3.0 units, that implied that students' workload was 3 hours lectures and 1 hour tutorial per week. The course activities were carried on during 13 weeks, September – November, and December was the examination period. The students typically participated in 4-6 courses during one semester, whereas the teachers had one or two courses per semester. The final number of students was 41, which was settled two weeks after the semester started. The first two weeks the students were allowed to "test" the courses and also make changes in their selections.

We worked in a team of three: one teacher and two teaching assistants (TA). As the teacher, I was in charge of the overall course planning, coordination and administration as well as the lectures. I also marked the written exam and determined the final grades. One of the TA:s was a PhD student, he had a few years teaching experience and he had also his own software company. Therefore, he coached the students' practical project work and he also marked the final project reports. The other TA was a younger Master student, he co-tutored the project work and his main contribution was the acquaintance with the students'

pre-knowledge and also with the typical workload per course. Before the course start we had a few briefings so that we could agree on the course structure and procedures, during the course we met if there were specific issues to discuss. What is more, I also met the TA:s every week as I participated in their tutorials.

The TA:s could certainly have taken responsibility of more of the course activities but we found that this was an appropriate level for all three of the team members. Most importantly, I was keen to participate in all course activities to learn as much as possible of the students and to follow their learning process.

Student population

In my course, the students seemed to be a bit younger than a typical student population would be at LnU, and the age distribution was narrower. However, I don't have any actual statistical evidence that would support this statement. Majority of the students were local or from the mainland, only one international student participated in the course. The ratio between male:female students was approximately 65:35 percent, which is slightly higher percentage of female students than a typical computer science/engineering course would have at LnU. However, I don't have the statistics of the entire CSE department and it is possible that my course could be more appealing for female students. This is the trend we see at LnU: *Informatics* has higher ration of female undergraduate students than *Computer Science* and *Computer Engineering*.

I had some interesting discussions with the administrative manager of CSE concerning the student recruitment. She told me that the engineering study programmes used to be very popular at CUHK, consequently the enrolled students were generally highly-motivated. However, the popularity of the engineering science has decreased so that nowadays it is more difficult to recruit motivated students and this can also have negative effect on the students' performance. This seems to be a similar phenomenon that has been observed in Europe; the trend towards diminishing interest in science and technology among school children has also been reported in the ROSE studies, *Relevance of Science Education*.

Relation teacher – student

In general, the students in my course as well as all the students at CUHK campus were very polite and respectful. This doesn't imply that the students in Sweden are generally disrespectful, merely that the teachers in the higher education in Sweden are not expected to be authoritarian and most of us are probably also less authoritative than teachers in Hong Kong.

The downside of the students' respectful behavior was that they were reluctant to have a public dialogue with the teacher in the classroom. We also tried to start a discussion forum in the learning platform (Blackboard) but there were zero interest for this kind of dialogue as well. My Swedish students can also be quite reluctant to ask questions in the classroom but they frequently use the

digital discussion forums, both when they have questions and also to discuss the course content with other students. This is the conduct that I have observed both among distance and campus students.

The students in Hong Kong preferred the direct and private communication with the teachers, both per e-mail and also face-to-face dialogue during the office hours. Typically, it would have been the TA:s responsibility to answer the students' questions but I also encouraged the students to communicate directly with me as I was interested to get their feedback.

It is also noteworthy that the CUHK students seemed to be quite confident when they were giving their oral presentations in front of their peers and the teachers, so that the public speaking as such was not necessarily the problem.

Forms of examination

The forms of examination were similar to the ones we use at LnU, in my course the final grade was determined by a combination of a individual written exam (50%), project work in group (40%) and presentation of the project outcomes (10%). This kind of combination of theoretical and practical parts is quite typical in Informatics courses at LnU.

The main difference in examination was the assessment system. Partly because the grading scale at CUHK was much more detailed, including 11 different grades from A to F, where A is the highest grade and F denotes failure. At LnU we have mainly used a system with only three grades: Pass with distinction, Pass and Fail. However, the assessment system will be developed gradually, starting in 2015, so that LnU will also introduce the A-F system. I like this idea and will be happy to use the new scale, but I'm also aware that this is quite a controversial development.

What is more, the crucial point of the CUHK system was that the grades must fit in the given cumulative distribution, if the course enrolment was more than 20 students. Naturally, I complied and followed the assessment guidelines, but I do not think that the percentage distribution per course will be the ideal performance metrics, especially when the number of students is low. The percentage distribution could be used to measure trends in a larger student population, for instance if the same data is collected over several years.

The third point that was different from LnU examinations was that at CUHK the final assessment schemes were submitted to the Faculty Assessment Panel prior to the final determination of the course grades. This procedure was actually quite assuring, especially for the teacher that was using the assessment system for the first time. Concerning my course, the panel suggested that one of the students could get the final grade of B- instead of C+, which I happily accepted.

The CUHK did not offer any re-exams, so that students that failed a course must enroll to the course next year if they needed/wanted to pass the particular course. This is very different from the LnU assessment system where the

students are guaranteed at least two re-exams and often several more opportunities are offered as long as the course is given. I was told that the CUHK students that failed the course very often complained in order to change the final grade. There was a specific administrative procedure for this purpose, although most students did not follow the official process but instead communicated directly with the examiner.

Use of technology and development of blended learning

The technological environment at CSE was appropriate for campus classes; each classroom had a computer with Internet access, video projector, speakers and a traditional white board. The quality of the equipment was impeccable, I encountered no technical problems during my lectures.

The main difference for me was that all the students were at campus. At LnU most of my courses include blended learning where both campus and distance students participate synchronously and the lectures are also recorded for asynchronous use. Consequently, the learning environment is technology enhanced, and the teaching process becomes very dependent on the quality of computer hardware and software, Internet connection, microphones, cameras, video projectors etc.

At the moment, CSE had hardly any distance courses. However, the CUHK was clearly interested to develop distance education, both the more traditional ideas related to life-long learning and also more demanding MOOC (Massive Open Online Courses) education. As it happens, one of the founders of *Coursera*, Andrew Ng, was born in Hong Kong and he also gave an inspiring lecture about MOOC in December.

Starting in 2015, CUHK will allocate funding in order to develop new pedagogical ideas, including MOO-courses, micro-modules (a new course structure) and also the concept of *flipped learning*, i.e. the pedagogical model where traditional lectures become obsolete as students study the content material beforehand and the time in the classroom is devoted to joint problem solving, discussions and other interactive assignments. Some of the teachers at CSE were already enthusiastic to test the new ideas and they also applied for the funding. The department also arranged some introductory meetings to inform the teachers and to explore potential constellations of suitable pilot courses. However, it will always take time for the innovations to diffuse throughout the organization. It would be very interesting to follow the development in this area at CUHK, and also to compare the outcomes with the similar projects at LnU.

Performance measurements

The various performance metrics (students, teachers) and ranking of the CUHK both in Hong Kong and internationally were important issues that were discussed in different contexts.

As already mentioned, the assessment system for student grades was detailed and the Faculty Assessment Panel monitored the outcomes.

The performance of the teachers and teaching assistants was also assessed, although as far as I know this was mainly based on the questionnaire that the students submitted after the course, the Course and Teaching Evaluation (CTE). The quantitative part of the CTE questionnaire uses 18 Likert-scale items (levels 1-6) and it includes following themes: Clarity of explanation, Enthusiasm and communication, Course organization, Examination, Perceived workload, Content difficulty, Supporting facilities and Overall satisfaction. The students can also give free text comments. An interesting detail is that the students are asked to give a self-estimation of the expected grade. The teaching assistants are assessed according a shorter questionnaire but the performance criteria are similar to the main CTE. The CTE questionnaires are distributed and collected by the administrative personnel and the Faculty monitors and stores the CTE reports. I am not entirely sure how the reports are actually used, but I got the impression that they are considered to be a significant instrument in the overall evaluation of the teacher's performance.

What is more, there is also a mandatory midterm course evaluation. The questionnaire is the same as CTE but the midterm evaluation is distributed, collected and analysed by the teacher and the data is not stored centrally. Nevertheless, this evaluation was a perfect opportunity to collect feedback from the students and to adjust the course structure and organization. I found that even if the students were generally quite happy with the course, they worried that the content would be too extensive and also there were not enough course books available at the Library. As a result I moderated my ambition and offered some other alternatives to access the books.

However, when I analysed the final CTE it seems that these adjustments did not have the desired impact. The overall scores were satisfactory, the adjusted mean of all items ranged from 5.00 to 5.62. The identified weak points of the course were still the somewhat extensive workload and the number of available course books. What is more, the learning outcomes should be expressed in more detail in the syllabus and the assessment methods must be clearly related to the learning outcomes. This is very useful feedback even if the course will not be given again at the CUHK, but I believe that it could fit well as an elective course in the Informatics study programmes at LnU.

Additional activities during the semester

The teaching assignment was naturally my main activity during the semester, and as the course was new this took a great deal of the available time. As often as possible, I participated in seminars where teachers presented their research ideas and results. I got the impression that the senior lecturers and professors had a reasonable teaching workload, typically 2-3 courses per year, and they had enough time to conduct their research projects. There was a strong individual

and collective drive to publish papers in high-impact journals; the Faculty monitored these activities and they were part of the overall performance assessment.

I also participated in interesting meetings, mainly concerning the development of new pedagogical models (MOOC, micro-modules, flipped learning). Another noteworthy concept was the ELITE-program that offers the most ambitious students an opportunity to attend extra lectures and to access more advanced study materials. The students that successfully pass the program get no extra credits but they are awarded certificates. The ELITE-program is still in its trial stage but it seems to be an interesting idea.

The best opportunity to meet other teachers was the Department retreat that was a two-day event in December. During the retreat the educational and research outcomes were reviewed, evaluated and discussed. What is more, new plans were made and innovative ideas were presented. It was striking that many problems were the same that we have to deal with at LnU: how to increase the student enrollment, student performance and retention, how to attract the students to attend lectures, how to support the weaker students and at the same time stimulate the more ambitious ones. After these discussions, I'm quite sure that new pedagogical models such as flipped learning may be a proper way to address at least some of the current problems.

Leisure activities

Staying at Morningside College was a very important part of the autumn term. It was not only the accommodation conveniently near the CSE department, but also the place where we met many friendly and charming persons. Three evenings per week there was a communal dinner that gathered the Morningside students, resident fellows and often also other fellows and guests. These dinners were a relaxed way to have discussions of all kinds of subjects, and we got a good insight into Hong Kong way of living and also the current political situation that during the autumn term was mostly focused on the *Umbrella revolution*.

Hong Kong is a fascinating city that incorporates modern urban attractions, cultural activities, historical environments and a beautiful nature with beaches and mountain tracks. We made a serious attempt to explore as much as possible but there still remains a lot more to discover.

Lessons learned - Topics to address and if possible to introduce in Sweden

As I mentioned before, after the inspiring discussions at CUHK I am very keen to test the new pedagogical ideas that are well suited for blended learning environments, such as flipped learning and micro modules. This will be work at the departmental as well as institutional level and as other teachers at LnU are also experimenting with these ideas I hope that we can make a joint effort. The Linnaeus University has also expressed interest to develop MOO-courses, which seems to be the next step in the progress of distance and blended learning.

I would also like to share my positive experience of the A-F assessment scale, even if the issue is still controversial at LnU. A new idea would be to introduce Assessment Panels at the faculty or department level, in order to support examiners in their course assessment.

At the personal level, the teaching sabbatical has been a great experience to test the competence and teaching skills outside my comfort zone. It has required some intense work but I'm quite satisfied with the overall results and the feedback from the students. I've discovered that the teaching tasks and responsibilities are very similar and that the teachers meet the same kind of challenges both in Hong Kong and in Kalmar. I hope that the teaching sabbatical experience will help me to better understand the viewpoint of the international students and also to take good care of the international guests that visit the Linnaeus University.

Acknowledgements

I would like to express my special thanks and gratitude to The Swedish Foundation for International Cooperation in Research and Higher education (STINT) that gave me this great opportunity to explore new parts of the world and also to gain deeper understanding of my own potential as a teacher.