# STINT TEACHING SABBATICAL

## **FINAL REPORT**



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On December 22<sup>nd</sup>, 2017, I received one of the most rewarding electronics messages of the last years of my academic life:

"Stiftelsen för internationalisering av högre utbildning och forskning, STINT, har glädjen att erbjuda dig ett stipendium inom ramen för Teaching Sabbatical programmet. Du erbjuds en plats vid The Chinese University of Hong Kong under höstterminen 2018..."

Within few hours, I communicated my acceptance to STINT, starting an amazing journey as a teacher in one of the most prestigious universities in Asia in one of the, without doubts, more exciting cities in the World, Hong Kong.

#### PREPARATION AND PLANNING

A week after the confirmation from STINT I took contact with Olivia Kwok at the Office of Academic Links and Professor Icy Lee who acted as academic link in the Department of Curriculum and Instruction at Faculty of Education. I decided to arrange the planning trip as soon as possible in order to plan my teaching duties with time during the Spring. The planning trip took place between the 3<sup>rd</sup> and 10<sup>th</sup> March. During the week a day of introduction to the Chinese University of Hong Kong (CUHK) was offered by the Office of Academic Links.

If I have to give some valuable advice from the planning trip it is to make possible to arrange a seminar or informal talk in the hosting Department or institution. Actually, this was suggested by Professor Icy Lee and she made the necessary arrangements for the event. I had a presentation about one of my research topics and the seminar was advertised for the whole staff at the Faculty of Education (Appendix). The seminar was attended by few people but it turned to be very important for the future meetings during the rest of the week when we have the opportunity to discuss with some of the teachers in more detail how I could contribute in some of the courses during the Fall semester. Moreover, through the seminar I had also the opportunity to talk with colleagues from other

Departments, interested in educational issues which a I kept contact in informal encounters during the whole stay in Hong Kong.

Housing was one of the important issues to address during the planning trip. Finding a place to stay in Hong Kong is not a simple task. During several days, I tried to find different options in internet, but it was rather difficult to understand the information provided or the conditions for renting. Fortunately, during the STINT-seminar in February I had the opportunity to talk with Per Nilsen and Hoai Anh Tran, the STINT-fellows that spend the previous Autumn in Hong Kong. They have stayed at ONE DUNDAS a modern 35-floor serviced apartment in Mongkok, Kowloon and they suggested that this was as a good alternative for housing. I contacted the administration of ONE DUNDAS before my planning trip in order to arrange a visit during the week I stayed in Hong Kong. The great advantage of ONE DUNDAS, compared with other serviced apartments in Hong Kong, was that I could make a reservation (on-line) several months in advance, already in March, so the problem of housing was rapidly solved. The house is located in Mongkok, which is considered one of the most populated areas in the World. It is a very pulsating and lively area where everything you need is close at hand. Very well communicated with four MTR lines in less than one kilometre, one of them going directly to CUHK (University station) but it is probably not the best option if you have small children. It was not my case, so for me ONE DUNDAS represent a perfect solution for my stay in Hong Kong.

#### TASKS AND RESPONSIBILITIES

As I mentioned above I hosted the Department of Curriculum and Instruction at Faculty of Education at CUHK. The Faculty of Education's main mission is the preparation and training of Hong Kong senior Secondary and Primary school teachers, educational researchers and specialists. The Department of Curriculum and instruction is the largest of the four departments in the Faculty and deals with research and education in the fields of teaching and curriculum studies. In the Swedish context of teacher education this area of knowledge corresponds to 'Didaktik', which can be defined

as the teacher's professional science. At Stockholm university, I work at the Department of Mathematics and Science Education in courses for pre-service and in-service Science teachers in Primary, Secondary and Upper Secondary School. Some of those were the targets groups in the courses I was involved at the Department of Instruction and Curriculum Studies at CUHK. It is interesting to point out that the teaching in my courses was organized in late Fridays or Saturday mornings due to that a significant proportion of the at the Faculty of Education are in-service and these are the times that provide the best opportunities to attend the courses.



The Faculty of Education of the Chinese University of Hong Kong (Ho Tim Building).

A fundamental and almost general part of all programs of Teacher Education is the Practicum, performed by the student teachers in local schools and normally supervised by university teachers. During my Teaching Sabbatical, I had the opportunity to perform, with my colleagues at CUHK several Practicum visits and to learn how the system of supervision and collaboration with the local schools were arranged in Hong Kong. In the following headlines I describe the courses and the Practicum experience.

#### **Subject Curriculum and Teaching (Biology)**

This course belongs to the Postgraduate Diploma in Education Programme and is offered to prospective and in-service biology teachers in secondary schools. The students taking this course has a major in Biology and study one year (full-time) or two years (part-time) to become authorised teachers in Biology. During my Sabbatical I co-taught in the first semester with the main teacher, Professor Victor Lau. Before I arrived to Hong Kong I received a preliminary schedule of the course, with some suggestions for topics in the initial lectures, but as the course progressed, we planned together in detail the content of the lessons during the week. The lectures were always on Saturday and lasted three hours and we were taught jointly by Professor Lau and I from the beginning of September to the end of November. Co-teaching in this way was one of the most interesting experiences during the Sabbatical as I will describe in the next headline.

Eleven students, all of them with a very strong background in Biology, attended this course. Some of them were young in-service teachers at the beginning of their careers, the rest were pre-service teacher that started their first Practicum after this part of the course, some of them I could visit in the schools at the end of November. The small size group contributed from the beginning to a rather intimate atmosphere in the classroom that encourage the participation of the students in discussions and dialogues.



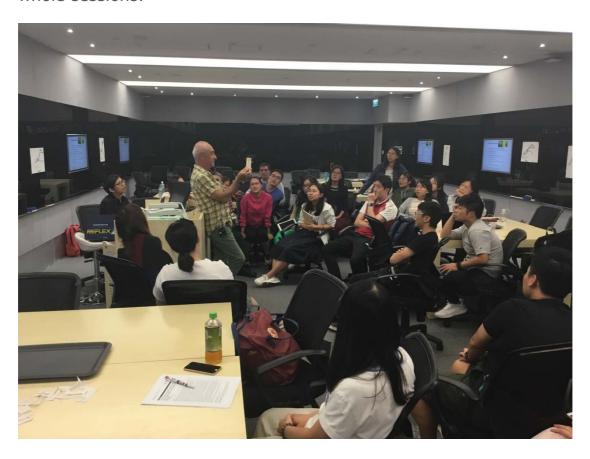


Students of the PGDE course working in small groups with different aspects of Nature of Science

During the lessons, Professor Lau and I alternated practical activities and lectures aiming to strength the links between theoretical aspects of teaching and classroom practice.

#### **Selected Topics in STEAM Education and Research**

The other course I was involved was Selected Topics in STEAM Education and Research, belonging to the Master of Education programme. This was the first occasion that my colleagues Dr. Oi-Lam Ng and Dr. Tom Chan To give the course and at our first meeting in March they have just started to plan the content and structure. Thus, during the Spring we had a fluent e-mail exchange discussing ideas and my potential contribution to the course. The aim of the course is to develop understanding and teaching capacities in STEAM (Science, Technology, Engineering, the Arts, and Mathematics) education and my contribution was to give the students relevant perspectives from Science Education. The language of instruction of the course was Cantonese, with the exception of my teaching sessions that were in English. I participate in some of the lessons in Cantonese and I was responsible for three whole sessions.



One of my lectures in the Master of Education. The classroom was well equipped to work in small groups. Every group had an own screen and modern glass blackboards.

The group size was large (43 students) and of a particularly heterogeneous background. Many the students were in-service teachers, in Primary or Secondary schools in Hong Kong or mainland China with very little experience of teaching Science or Technology. Additionally, there were pre-service teachers and a small group of in-service secondary science teachers with experience in science instruction. Considering these preconditions, I planned in my teaching sessions several activities of scientific inquiry, Nature of Science and context-based learning to give the students a first ground to work with STEAM issues in their own classes. Dr. Ng and Dr. Chan To liked my teaching approach and provide all the support to arrange these activities for a such large group. I can say that it was challenging and demanding, but the students' evaluation of my lessons suggest that they really appreciate this mix of theory, practice and reflection.

#### **Practicum**

One of the most important constituents of any Teacher Education program is the Practicum period at the school. I was very interested to learn more about how this part of the formation of a teacher was organized at CUHK, practical aspects of the visit, feed-back provided and assessment practices. At the end of my Sabbatical period I could follow my colleagues at CUHK in several Practicum visits to Secondary schools in Hong Kong that had English as language of instruction.



One of the student teachers of the PGDE course teaching Biology during her Practicum.

I had the opportunity to observe lessons, talk with the students and pupils of the school and even participate and provide feed-back in the discussion with the student and supervisor after the lessons. In some aspects, the Practicum at Teacher Education in CUHK and Stockholm University are similar, but in Hong Kong the Practicum it is not a course by itself but organized in a more informal form by the Department. In this way, routines, contact with the schools and assessment and students' following-up seems to be rather pragmatic and remains a bit how it was in teaching Education at Stockholm when the Practicum was not structured in independent courses. Apparently, the role of the supervising teacher in the school is not so well-defined as in teacher education in Sweden, where they have to take courses and be certified as supervisor, however teacher education at CUHK has developed during years a network of schools and teachers that ensure a Practicum of good quality for the student teachers. I learn too that the Practicum period in Hong Kong is significantly shorter (two months in two equal periods during the last years of the programme) and presume that the student teacher can teach independently after the second

week. This is rather different from the Practicum in Swedish universities.

# OTHER ACTIVITIES DURING THE TEACHING SABBATICAL

Besides the main teaching activities mentioned above I attend research seminars organized by the Department of Curriculum and Instruction and the Division of Mathematics and Science Education at the University of Hong Kong. During the last five years, I have had contact with Professor Kennedy Chan at the Division of Mathematics and Science Education of University of Kong since we both have a common research interest in teacher professional development. On October 16<sup>th</sup>, I was invited to held a research seminar for his group and participate in one of his lessons for future Biology teachers.

During my time at the Faculty of Education I worked with Dr. Ng on a potential agreement between our institutions to promote student exchange. We have had a student exchange with the National Institute of Education in Singapore during the last four years in which Swedish and Singaporean students have the opportunity to perform five weeks of their Practicum in the host country. During my stay at CUHK, we studied the agreement with Singapore, the syllabus for the exchange course and discussed the particulars and details of the exchange. Stockholm University and the Chinese university of Hong Kong already have a wide agreement, but we believe that a specific exchange agreement at Department level in teacher education can have a positive effect on the internationalization of Teacher education in our teacher programmes.

# TEACHING AT TEACHER EDUCATION IN CUHK – A COMPARISON WITH STOCKHOLM UNIVERSITY

I have already described some experiences of my teaching in the previous headlines. Indeed, I found important differences between CUHK and SU in the way courses were performed, the teachers' roll, teaching activities and students' attitude. Many of them that can be

attributed to differences between the teaching systems and traditions existing in CUHK and Stockholm University. However, the courses in which I was involved were completely different in group size, students' background and aims making almost impossible to draw any general conclusions. In other words, If I had taught in one course only I should have got completely different pictures of what is teaching at CUHK. Hence, I will try to give a more general account of some differences I found between my teaching in Hong Kong and Sweden. It is important to point out that my experience is in the context of Teacher Education which has, both in CUHK and SU, its own teaching tradition. When I read the descriptions of teaching experience of other STINT-fellows in CUHK involved in other programmes I got the impression that there are consistent differences within CUHK faculties and departments.

#### The courses

I have the impression that the interpretation of the syllabus courses in CUHK have a more pragmatic character than in the Stockholm University. In Stockholm university, in addition to the official Syllabus- "Kursplan", the juridical document- we provide to the students several other documents that concretize the Syllabus and provide a more detailed description -Course Description- of the contents, learning outcomes, assessment and literature. Both the Syllabus and Course Description are usually thoroughly discussed in the beginning of the course with the students. In both courses I was involved at CUHK, a course outline was presented in the first day of the course but I missed the critical stance we are used to work in the Swedish context. That says probably more about the Swedish approach to the curriculum which align more with the European didactical tradition in which the curriculum is transformed in practice rather that only implemented in teaching.

#### The students

From experiences of previous STINT-fellows in Asia I was prepared to meet rather shy students and no so eager to discuss or even

answer questions. After a semester of teaching in CUHK, I should say that this description of Hong Kong students is partially correct in comparison with Swedish students, but it is far from the norm and applicable to every context. In my particular experience the interaction with the students was very different in the two courses I taught. In general, I believe that the students in Hong Kong don't feel very comfortable speaking in group when the teacher prompt spontaneous questions. However, they are very confident when they have to present some assignment in public. In the PGDE course, the small group size made possible a much more familiar environment and the students, after some lessons were more and more participative in the discussion in the group. In the Master of Education course was much more difficult, due to the large group size and the very heterogenous nature of the course (some of the students were very young, but other were middle-age in-service teachers with much more teaching experiences). Staying question to the group in the Master of Education group was more challenging and usually I met the silence. However, I realize that if you let discuss some well-selected questions in small groups and let the group reflect and summarize the answer it was considerably easier to get a dynamic of dialogue in the classroom. Eventually, this can be a good advice for incoming STINT-fellows: do not relay in spontaneous questions but prepare in advance questions or more organized activities that stimulate student answer after reflection.

#### **Teaching approach**

In both courses, lessons were about three hours long and included a short brake, which is similar to many courses in Teacher Education at Stockholm University. Normally, I design a sequences of teaching activities that combine more theoretical expositions with references to literature, inquiry-oriented activities that resemblance school activities and discussions that link theory and practice. Although there is a large variation between teachers and universities, I would say that these three elements are rather typical in Teacher Education in Sweden. When I planned my lessons with the colleagues at CUHK, I got the impression that teaching (in particular

in the Master of Education course) was rather theoretical, more lecture addressed with some elements of discussion.





Inquiry-oriented activities during the Master of Education course.

I designed my lessons in the as similar as in Sweden, with several inquiry-oriented activities in the lessons and I should say that I was a little bit concern about how the students would react when they have to be more active during the lesson. Interestingly, they partook in the activities with great enthusiasm, even more than I expected. My co-teaching colleague Dr. Tom Chan To assisted me during the lessons and he was really an incredible help in organizing many practical aspects for teaching such a large group.

One of the aspects that surprised me positively in my teaching in both courses at CUHK was the capacity of the students to work together when solving the tasks and lesser assignments during the lessons or in homework. I got the impression that they really enjoy working collaboratively and the results of this work were often surprisingly elaborated. This contrasted with their rather cautious attitude when they had to perform individually in classroom situations. I do not have the ambition to provide an explanation of my rather limited experience, but as Per Nielsen (previous STINT fellow at CUHK in 2107) suggested in his final report, some differences in teaching and research between Sweden and Hong Kong may be attributed to differences between Western and Chinese cultures, the latter having influenced Hong Kong along with the British colonial influence. Thus, whereas Western cultures tend to focus on

the individual as an independent and self-reliant being, Chinese culture has traditionally downplayed concept of the individual, instead emphasizing the supremacy of the collective (Per Nilsen, final report 2017<sup>1</sup>).

#### **Support for teaching**

In comparison with my work St Stockholm University, one of the aspects that I found very positive in my teaching experience at the CUHK is the extensive support the teachers have in many practical and logistic aspects. The Department has a competent assistant that prepare experiments, material, chemicals and maintain the laboratories. Also, students are employed in different task to relieve the teacher of practical, but necessary work. In my case, I planned several activities including laboratory work and they help me to purchase and obtain all the necessary materials.

#### **Graduation Celebration**

In October, I had the opportunity to attend the Postgraduate of Education Diploma programmes' graduation ceremony at CUHK. About 250 student teachers received their diplomas in a emotive ceremony with the present of the Dean and Faculty staff, relatives and friends.

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<sup>&</sup>lt;sup>1</sup> Retrieved from STINT Teaching Sabbatical Final reports. http://www.stint.se/1/242



2018 Postgraduate of Education Diploma programmes' graduation ceremony.

For me it was an opportunity to understand the value of certain academic traditions for elevating the teacher profession in Hong Kong and probably in other Asian countries. We do not have such academic traditions at Stockholm University, at least regarding Teacher Education and I believe that in this aspect we have some lessons to learn from CUHK. Besides the Graduation, I witnessed that CUHK student life offers plenty of activities and events. CUHK is the only university in Hong Kong that have a collegiate system, where the undergraduate in the first years live in the campus.

#### **ACTION PLAN**

In the course of Master of Education, I had the opportunity to work in a very large classroom, especially furnished and well-equipped to work in small groups. Every group had an own screen and modern glass blackboards and the teacher could control the activity of the monitors and swift to lecture mode. It was incredible versatile, technologically advanced and made possible to combine lectures with group work. I believe that if could be a good idea to implement one of these classrooms in our Department to manage teaching for large groups.

In the course of Postgraduates Diploma of Education, we work with micro-teaching. We asked the students asked to prepare a short lesson (20 minutes) for their own students. The students taught the

lessons to their student peers and after that teachers and peers commented on what we saw happening, referencing the student's learning objectives. The short lesson was video recorded. This is a very powerful teaching method that allows to provide constructive feedback from peers about what has worked and what improvements can be made to their teaching technique.



Micro-teaching. One of the students at the PGDE course teaching for his peers.

I have worked with micro-teaching before at Stockholm University, but I what I can take home is the way my colleague work with the video to document the lesson and several aspects of the feed-back that I usually do not pay enough attention in my micro-teaching activities.

I have ben working with international exchange for many years in Stockholm University, but after this experience I am even more convinced of the importance of international experiences, both for students and teaching staff. I am sure that my experiences at CUHK are going to be an important in my commitment with our Department international work.

There many aspects of the content of the courses that can be applied in our own courses at Stockholm University, in particular the experiences from the Practicum were extraordinary valuable for our work. Also, inspired by the graduation ceremony at CUHK, I would

like to talk in our Department about how we could introduce a similar experience for our own students.

Co-teaching with my colleagues at CUHK has been the most rewarding experience and I think that, even though we practise coteaching at Stockholm University, this could be implemented at more extend, even with visiting teachers in the future.

#### **ACKNOWLEDGEMENT**

I want express my warm thanks to the wonderful colleagues and co-teachers at CUHK Victor Lau, Oi-Lam Ng and Tom Chan To that share with me all their experience and enthusiasm during the courses. I am also most grateful to Sarah Luk and his family for their wonderful friendship and hospitality during my stay in Hong Kong. Icy Lee and Angie Choi the Department of Curriculum and Instruction and Olivia Kwok at the Office of International Links were extraordinary helpful during the whole Sabbatical in all kind of matters and practicalities. From my own Department of Mathematics and Science Education I want also acknowledge Maria Andrée, Auli Arvola Orlander for their support during the application process and stay in Hong Kong.

Most of all, I am very indebted to STINT, including Christopher Carlsson, Karin Forslund and Hans Pohl, that made possible this unique learning experience.

#### **APPENDIX**



#### About the speaker

Dr. Jesús Piqueras Blasco has background in Ecology, but during the last ten years he has been working in research and teacher education at the Department of Mathematics and Science Education, Stockholm University. His research focuses on Science teaching and learning in informal learning settings as museums, science center, botanical gardens and aquariums. Particularly, he has been interested in the study of learning process in socially shared practices in museum programs and activities designed for the school. Dr. Piqueras' second area of professional teachers' is development and how research results in Science Education can be used to support teachers in their planning and teaching.

#### Abstract

In this presentation I show how a certain critical event contributed to teacher change in a professional development program in a Swedish secondary school. The professional development program was part of a wider research project focusing on how knowledge stemming from science education research can support science teachers' day-to-day work with improving teaching. We used Clarke and Hollingsworth's interconnected model of teacher professional growth to analyze what consequences interactions between teachers and researchers had for teacher change. In my presentation, I will focus on the crucial consequences which followed as the researchers took increased responsibility for implementing the newly introduced knowledge in the teachers' practice. The results have implications for how we view the role of researchers in professional development.

