



Research Supervision *Booklet*



學能提升研究中心
Centre for Learning Enhancement And Research



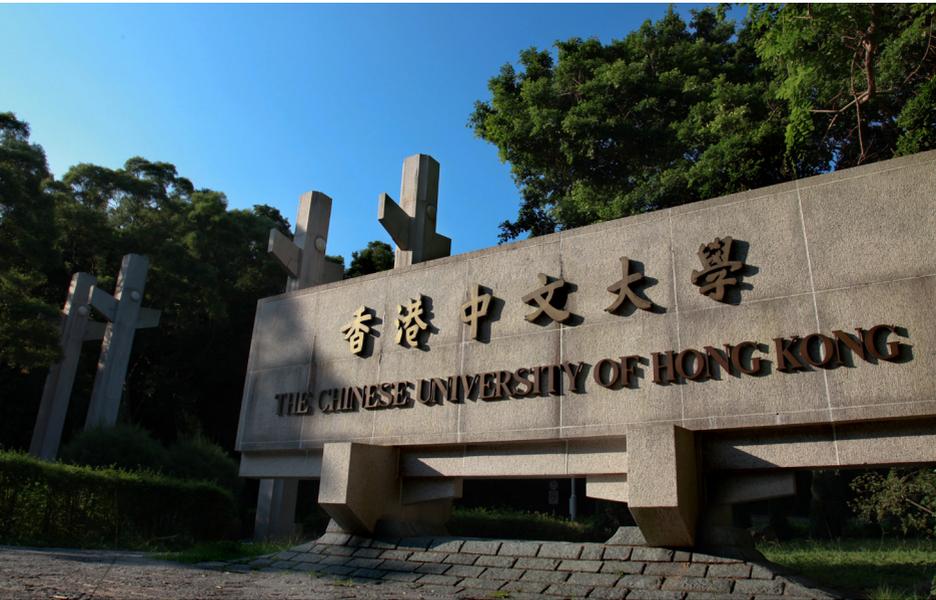
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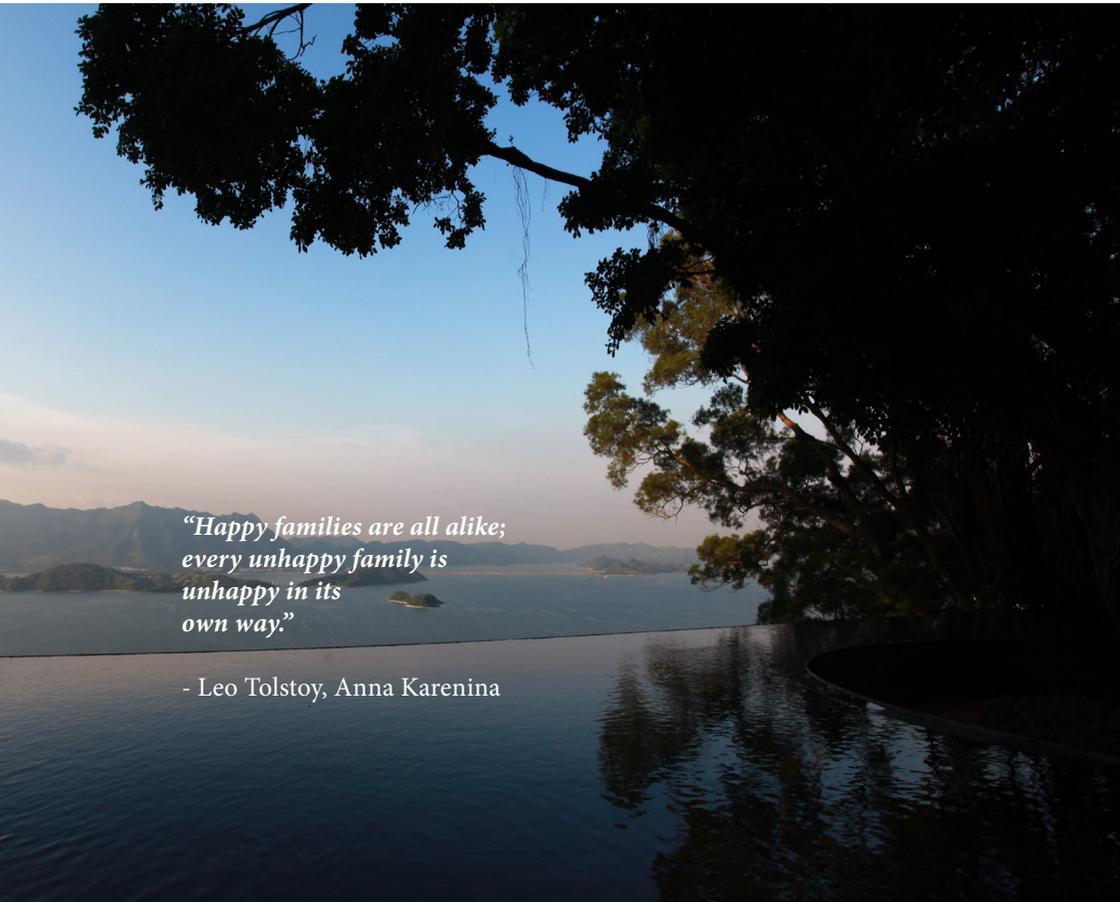
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ABOUT

The Research Supervision Booklet is designed by the Centre for Learning Enhancement And Research (CLEAR), cooperated with the Graduate School. It encompasses the views of research supervisors (both junior and senior) from eight faculties in The Chinese University of Hong Kong (CUHK) collected from the field surveys in 2014 - 2015. It serves for research supervisors and other stakeholders at CUHK to receive customized and up-to-date information.



INTRODUCTION



*“Happy families are all alike;
every unhappy family is
unhappy in its
own way.”*

- Leo Tolstoy, Anna Karenina

INTRODUCTION

There is much to object to for any attempt at discussing research supervision in general. Besides individual differences, academic disciplines are wide apart in their culture and practice, in research as well as supervision. It certainly is possible to come up with basic principles that are agreeable to all but they probably would be too general to be useful and instructive in specific contexts. Anna Karenina Principle is a good general reminder but dwelling on such principles for long is neither interesting nor very useful.

What then may we do usefully if research supervisors of different disciplines are to come together for a discussion? If we are to “train” colleagues new to research supervision, what would be an appropriate programme for it? What should professional development in research supervision be like? If we are taking precious time off colleagues’ academic pursuits, it had better be at least as interesting as their own research.

A promising idea may be this: treat professional development as a reflective research inquiry into our own practice and experience in research supervision in CUHK. A training programme, undertaken early as colleagues get into research supervision, would be preparation for their joining in the reflective inquiry, becoming not only supervisors in their own disciplines, but also collaborators in a long-term university-wide research programme in research supervision.

CLEAR envisages two components for such a programme: (1) reflective inquiry; (2) seminars. The booklet presents the first component, an agenda for reflective inquiry into research supervision, initiated by CLEAR with a view to be developed as field surveys are conducted to collect views of both supervisors and students, and regular open seminars are held for disseminating and discussing ideas of interest to research supervisors.

REFLECTIVE INQUIRY

An Agenda for Reflective Inquiry: An Overview

Researchers are interested in basic questions, and excited by controversies and differences. The following agenda is initiated with such in mind. The topics will be elaborated below and supplemented with views and ideas collected from colleagues in interviews conducted on a continual basis. We have interviewed 30 colleagues within the schedule.

1. Research study in university

What is our own conception of research, in particular, research conducted in university? What are the major disagreements in what good academic research is, within and across different disciplines, between supervisor and student?

2. Research student

In view of the research students we have in CUHK, what are their needs and what are the right ways to train them? Would student interests get into conflict with the supervisor's? What are the ethics of research supervision?

3. Thesis research

What help may the student expect from supervisor in thesis research? What is the supervisor's role in the student's thesis writing? What is the right balance between perfection and graduation?

4. Research career

What are the changing prospects in research career? How may the supervisor prepare and counsel the student? What is the right balance

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between ideal and reality?

The questions are attempts to bring out controversies and differences in basic issues, even for colleagues in close fields so that discussions and arguments wouldn't get explained away by disciplinary differences too easily, which may preempt productive exchanges and inquiries prematurely. Our hope is that the agenda may lead to interesting arguments and lively discussion among colleagues in research supervision irrespective of where they come from. Hopefully, the discussion matters will be interesting, worthy of reflection and focal inquiry.

NEW ASIA COLLEGE



◆ **Research Study in University**

Academic research is highly regarded in university, and research of various kinds carried out in other institutions also commands prestige in the public eye. However, this is not without controversy as research tends to be costly and its value may not be recognized. Research is exploratory in nature and outcome is often uncertain. This makes research a risky business, and research funding a thorny issue. Whether a specific research work is useful may be debatable, yet some may argue that basic research may be pursued for academic interests and usefulness should not a consideration.

Research may also be recognized by the way it is carried out. Different fields may develop different research practices, protocols for data collection, experimental procedures, standards for validation, reporting and publication, etc.

There is therefore much to defend about what good research is. A continual debate of what good academic research is would be the mark of a researcher's conscience, which is all the more important for research supervisors responsible for the training of the next generation of researchers.

1. What are the distinctive qualities of research work?

Scholarship of discovery is the term Carnegie Foundation uses to mean the “scholarly investigation closest to what is meant when academics speak of ‘research,’ that confronts the unknown and creates new knowledge”¹. Originality is therefore a core value of research, and often a stated requirement for a doctoral thesis.² However, research is risky business and it is quite possible that original results come only occasionally, if at all.³ It is necessary to recognize research work in aspects other than the outcome.

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Research may be distinguished by the inquiry, the questions being posed. In scientific disciplines the importance of a good hypothesis is crucial, so much so that some would describe research as being hypothesis-driven. It may relate to some open problems widely recognized by researchers in the field, or it may be formulated out of curiosity by an individual researcher. In either case, recognition from fellow researchers would be necessary to keep the inquiry going, especially when results are still wanting.

Research may also be recognized by the way it's carried out. Different fields may develop different research practices, protocols for data collection, experimental procedures, standards for validation, reporting and publication, etc.

Originality of results, aspirations of the inquiry, qualities of the process would distinguish research works of many kinds. However, what their relative importance is and whether they are all strictly necessary would probably lead to heated debate even among researchers of close kins.

2. What are the advantages of university over other institutions for undertaking research works?

Universities such as CUHK have research as their core mission but many research works are carried out in other institutions in public and private sectors too. Sometimes non-university research may complement research in university, as in numerous partnership and technology transfer projects in social, natural and engineering sciences. Other times they may compete, as in many engineering projects where the potential promise is in both knowledge and profit, or public surveys, when findings may be value-laden and policies are at stake. The competitive advantage of university research is a basic question here.

On one hand, autonomy and freedom of pursuit are core academic

values embodied in the university institution, and the advantage over corporations with mandates and top-down control is obvious and significant. University is a society of intelligent minds covering a broad range of knowledge with research works carried out on many levels.

On the other hand, CUHK is publicly supported, which conditions and restricts its activities. For instance, CUHK's prevailing policy states explicitly that it "will not normally undertake classified or proprietary research, or perform purely commercial work"⁴, that it "should not compete with the commercial sector ... develop and commercialize a product"⁵, and "all knowhow, inventions and such related patentable properties be utilized for the greatest possible public benefits"⁶.

In other words, a key difference between university and non-academic institutions is the nature of research drive. University thrives on individual researchers' own initiatives while a non-academic institution tends to be mission-driven, organized and controlled top-down. Some suggest academic autonomy as an advantage, making university a rich breeding ground of ideas, especially for multi-disciplinary research, but others may point to the difficulty in conducting large scale research work for which organization and resources may be critical. How does it fare in different disciplines? For instance, when disciplines of the same faculty or researchers of the same department are so advantaged, or disadvantaged, to different extents, would it mean problem?

If such consideration should shape the range of university research to be different from that outside, what is the impact on research training of students, especially for those whose career opportunities may lie in non-academic research?⁷

3. What does it mean to distinguish research works undertaken in university as being "academic"?

It may be surprising for many to know that the early modern universities

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in 19th century Europe were not as keen on research, or the business of knowledge creation. Their mission then was more traditional, focusing on scholarly subjects such as philosophy and mathematics, and elite professions in church, government and medicine. Cardinal Newman's famous work, *The Idea of a University*, was partly a defence of the traditional reason against secularization, the ideal against the practical, and, in education, character building more than vocational training.

The modern university in free pursuit of knowledge was an idea well articulated by the German philosopher Wilhelm von Humboldt, also once Prussian minister of education. Such is an original meaning of being academic - being free in the pursuit of knowledge. Academic research may then be taken to mean an ideal of being free in the pursuit of knowledge through research, an ideal in which individual researchers carry out their works without fear or favour.

However, how the ideal works out in a university where academic staff members are salaried employees, also accountable to public fund in the case of CUHK, is no simple matter. Here lies a distinctive challenge of university as an institution: it employs academic staff and at the same time has to defend their academic freedom, including autonomy in their research.

Besides, academic research is also distinguished by a system of practice and conventions in free circulation of research information, peer reviews, professional organizations, career and qualification, etc.

While the importance of these ideal and practical distinctions are agreed upon, how flexible they are may subject to debate. For instance, funding and other influential agencies inside and outside university may seek to suggest and influence research directions, with conditions and incentives for the research support. Also, patenting as a means to capitalize on research may impose restrictions on early publication of "sensitive" information. When researchers comply, are

they negotiating flexibility, or are they compromising autonomy in the range of university research, and research education? Will they become more like researchers in non-academic institutions, and should they?⁸

Many a university researcher may aspire to the academic ideal, becoming academic in character, even in their way of living.⁹ However, should he “preach” to a student whose interest is but research as professional skill? Is being academic important in research training in university?

4. Is there conflict between getting research work done and getting research students well trained?

Ideally research supervision should be mutually beneficial with both parties achieving what either may not achieve alone. In practice there may be significant gaps in research interests and aspirations between them, and compromise in research matters, time, even standards may be necessary. Compromise may be arrived at through closer coupling, forging common goals and interests, or through loosening coupling of faculty and graduate research and a more advisory role for the supervisor.

In the case of close coupling, supervisor and student work together on a project of common interest. Presumably, the supervisor may expect quality work only if the student becomes skillful enough in time for completion of specific tasks. However, the student may be constrained in many ways, such as time needed for learning, expiry of his candidature, etc. If the research work becomes dependent on the student’s effort, should he graduate even if he has done “enough” for thesis writing? Are there obligations due to research collaboration beyond responsibilities of research supervision?

In the case of loosened coupling, supervisor’s time allocation would be a challenge as he has to juggle between his own research and

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supervision of his student's. Conflict may appear between his research commitments and getting his students well trained in time for satisfactory completion of thesis research.

¹ Boyer, E. L. (1990). *Scholarship Reconsidered: Priorities of The Professoriate*. US: Jossey-Bass.

² [New knowledge ... no one has come up with these ideas in the past before" - Lee]

³ ["Most of our experiments might not give you any results." - Tse]

⁴ Policy on Research, IP and KT, CUHK. Apr 2013. Retrieved from http://www.orkts.cuhk.edu.hk/images/Research_Funding/The_Policy_Paper_1a.pdf

⁵ ditto

⁶ ditto

⁷ [Product and technology orientated, testing, validation and surveys, contract research in engineering and business; commercial drug research - Tang; "Research on areas relevant for practice, but delving deeper with more precision than the time constraints of practice allow." - Donald]

⁸ [Constraints from links with international community - Lee, Yiu]

⁹ [intellectual - Lee]



◆ Research Student

The typical student admitted to do research is not only good in the chosen subject but also young and enthusiastic. He may be dogmatic in pursuit of an academic career, but he must be a romantic at the same time, having committed a few precious years of his young life to an uncertain prospect. His romancing begins with a challenge: he needs to find a supervisor he would trust, and who is also willing to take him.

A young supervisor would be prudent in accepting a research student in view of his own lack of experience, but the veteran, out of experience, could be even more cautious. He would have dozens of stories to tell how things hadn't worked out for some of his own peers, and previous students. Therefore, when a supervisor, young or veteran, decides to take a research student under his wing, it should mean he manages to find sufficient good faith in this young spirit. As such, research supervision often begins hopeful for both student and supervisor, a honeymoon imbued with expectations. At the same time, the duel between the two parties' hopes and expectations also begins.

Honeymoon duel

Trust is what bonds a human relationship. How the duel plays out is going to spur mutual trust between student and supervisor. The student may or may not be keen on the supervisor's attention, but he certainly would like some concrete suggestions as how to get started. What should he read, papers or books? What new skills or tools should he learn? What courses should he take? What should he do for research? Generally speaking, he wants answers, and this desire drives his expectations.

As for the supervisor, he may or may not be keen on offering any actionable items. An experimental scientist may have a standard list of

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techniques and instruments for the student to learn, or some tasks to carry out right away. A bookish scholar, however, may simply send the student off to the library, ask the student to think about what he wants to do for research and come back to talk about his ideas when ready. The nature of the field as well as the supervisor's style come into play here and his initial advice may be anything from a concrete to-do list to just something to think about. He may assign work and expect some tangible outcome, or he may just encourage exploration and expect the student to come up with ideas.

Unless the student is happy to go with it, the gap between what the student wants and what the supervisor has to offer should be faced with and dealt with early. The supervisor who makes it clear early that he welcomes honest discussions would be a big help to the student who may be used to be submissive to teacher, or still cautious with an unfamiliar environment. To instill trust for discussing differences as they arise should be a fitting aim for the honeymoon period.

Is that not what I should be doing for research?

The research student spends much time alone; alone reading, alone working, alone thinking. Much of that is of course necessary, cultivating discipline and the power to concentrate. But there will be times when he is alone not knowing what to do, or doubting what he is doing, for good or for bad. He just read a paper which seemed to have done what he is planning to do, or invalidated his results. Has he been wasting time? Or he may be lacking in progress for a long time, stuck with some seemingly impossible task, and so on. Should he keep up with a time-consuming but so far unproductive work?

The supervisor may or may not be ready with a technical advice, but his counselling would be most needed in such a time. The research student is not only learning to do research, he is at the same time on a personal journey of significant intellectual and emotional growth.

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Research learning has a transformative dimension¹. The student is not just expanding his mind with more knowledge. He is transforming his mind for a new relationship with the world of knowledge. He was more used to learning by following. Now he has to make his way to some frontier and lead. He has to learn to develop a researcher's mind that knows how to put doubt, and self-doubt, to productive use.

Becoming a researcher

Besides working on his research project and developing a researcher's mind, the research student needs to become part of a certain research community. From the start, he is almost totally dependent on the supervisor on this. He joins the supervisor's research group, gets introduced to his fellow researchers, meetings, and publication venues, to learn the trade so to speak.

However, the student may or may not go after a research career after graduation. The supervisor would help in this important consideration if he is sensitive to opportune times for discussion. While discussion at a high spirited moment, such as when a key paper is done, may be encouraging, a calm discussion otherwise may be more prudent. Times of doubt also tend to instill extra caution, even discouragement. Career counselling for a research student subjected to the ups and downs of research work should be exercised with extreme care, inasmuch as the supervisor is trusted by the student. It is quite possible that a supervisor wants to focus on students aiming for a research career, which means it is important to make this clear to students.

¹ Jack Mezirow and Robert Kegan on transformative learning.

◆ Thesis Research

“A thesis is a first attempt to be a scholar.”¹

The requirements for a PhD degree may differ widely among disciplines and schools, but the preparation of a thesis is a standard requirement for all PhD students whatever the subject. The thesis is an indispensable component of the doctorate journey and one of the more visible products of the years of self-motivation and hard work spent on a project, as well as the self-imposed isolation from society. Indeed, for a PhD student, the thesis is a valuable record of the time spent thinking about and exploring their specialized topic. In addition, the thesis is the most tangible goal for a newly-admitted PhD student who has just ventured into the academic world, as the successful completion of a thesis usually marks the completion of the degree.

Pain, easing pain

Anybody who has prepared a PhD thesis will never say that it was a simple and pain-free process. As mentioned previously, the preparation of a thesis varies from one discipline to another. This also holds true for the form of the thesis, whether it is a single manuscript that is focused on one unified research question or a combination of several research papers on related topics. The time spent on writing a thesis also differs. Whereas Arts students may draft their thesis proposal as soon as they begin the first semester, Science students will likely not sit down to write until their final year. However, a common factor in thesis writing whatever the discipline, is that rather than being a distinct act, it is an enduring and recursive process, which can result in a progression of mixed feelings. The most common and inevitable feeling, regardless of experience or ability, is probably one of pain. Pain is felt, for instance, when just two pages ‘survive’ of the thirty-page draft the student submitted to their supervisor for review; or

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when an entire month is spent preparing the body of a chapter, which the supervisor then reads and rejects as being unsatisfactory. Indeed, the pain can hit at any time when a novice writer runs out of ideas, hits a dead end, suffers self-doubt, receives a negative response or simply exhausted his/her energy.

What causes the pain? The obvious reason is that writing itself is difficult. Good academic writing, a goal that many academics strive for, is the product of years of practice and training. In reality, most PhD candidates are good at thinking and planning their research, or having an internal intellectual debate, but trying to express their thoughts on paper, in a clear and coherent, well-structured and logical manner, is a different story. Academic writing is an act of discipline, which requires a combination of precision, coherence, structure, and organization. The writer Stephen King says “writing is refined thinking,”² which in turn demands a higher level of input, diligence, and self-discipline.

In addition to writing being difficult, another area of concern is the amount of mental energy demanded during writing. Even accomplished writers cannot guarantee quality work all the time. Pain can come from various psychological obstacles, which might manifest as procrastination, writer’s block, or self-denial. In the case of writing a thesis, if these mental barriers are not well handled, then they might have grave consequences: not only could the quality of the thesis be affected, but the students’ confidence and commitment might also be compromised.

In this situation, how should a supervisor proceed to help the student manage the pain? The solutions are diverse, but the overall goal is the same - to cultivate the necessary mindset and develop the key basic habits of an academic writer. Is there any advice or guidance that the supervisor gained from his/her own mentor, which might be still be applicable to the students today? Is there a standard or particular style, or indeed some tactic knowledge of the field that will save the students unnecessary detours? Are any resources available on campus

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for students to receive systematic training and constructive feedback in their writing skills? Getting answers to the above questions might offer some pain relief for academic writers in training.

Some of the pain may also be eased when students understand that writing is largely a case of rewriting, and revision is the rule rather than the exception. In this respect, supervisors may offer encouragement by sharing their own experiences, perhaps by showing the student his/her own thesis drafts (with the comments for improvement from their supervisor), or the reviewer's comments from recently rejected manuscripts. Supervisors may also get their other students involved, to give comments and feedback, or even help with editing. This benefits everybody involved; the more junior students are better prepared if they assist others through the pain of writing a thesis before it is their turn.

Counting down, writing up

Towards the end, thesis writing is a time of trade-offs and decisions, and often compromises have to be made. At this stage, the student and supervisor may have divergent ideas in terms of priorities, expectations, and career planning, and as a result there might be conflict. In order to alleviate potential problems before they start, it is usually a good idea to make an explicit and mutual decision to have a "write up" count down. This typically involves endorsing the start of drafting, finishing a work plan, clearing any major final blocks, drafting an end-game plan to schedule writing and other necessary tasks, and finally seeing the first draft in its entirety. The supervisor and student may have different ideas with regards to their estimation of the time required to achieve certain goals: for example, the student may be too anxious about the time or too ambitious about the quality of the finished thesis; while the supervisor has his/ her own work schedule to consider when setting the boundaries.

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With the current trend of marketization of academic research and training, which cares more about efficiency, the product and the outcome, and is in favor of “producing” a PhD in shorter time, it causes serious consequences to the PhD candidates and their theses. Such a trend does not work favorably for some students or some research projects, which require a longer time to come to fruition, and this may lead to a lot of extra pressure for the candidate to rush their work. Indeed, the end of financial support is sufficient motivation for many students to complete and submit their thesis. On the other hand, the supervisor has a duty to ensure that the thesis is of high enough quality to at least meet a certain standard of acceptability. After all, neither the supervisor nor the students are willing to receive a ‘fail’ from the thesis committee. On the whole, the quality of a thesis is determined by the quality of the research that precedes the writing. Thus, the decision to submit a thesis is not usually a last-minute call, but instead follows a continuous process of monitoring from which the supervisor can tell from an early stage if there might be problems.

Publish, or polish

In most disciplines, getting the research published is not a prerequisite for graduation. However, having a publication is certainly advantageous for graduates, from many points of view. The first question, though it sounds redundant, is why publish at all? Is it for the long-term academic career plan or to disseminate knowledge? The necessity of having publications really depends on the student’s own prospects, for example, whether they want to stay in academia conducting research after they get their PhD or not, or how prestigious a university they aspire to go to, to do a post-doc or for their next job.

The supervisor has to exercise discretion in deciding whether to encourage the student to publish, or to save time and concentrate on their thesis work. Certainly, having a publication underscores the academic accomplishment, for both the student and supervisor,

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and the process is instructive for an aspiring academic. However, the process of preparing a manuscript is time-consuming and an added burden when done at the same time as writing a thesis. This is another area of potential conflict between the student and supervisor, especially if one is more enthusiastic than the other for getting the work published.

In many ways, the opening quotation (made by George Watson) is rather more romantic than practical. Even though it straightforwardly describes the purpose of thesis research, it does not depict the endeavors, struggles, and conflicts involved, and it provides little useful guidance for students. The suggestion that a thesis is a “first attempt”, indicates that it is an unknown, challenging, and uncertain task for the student. The supervisor is the main person who will take care of such “unknowns, challenges and uncertainties” for the duration of the research and throughout the preparation of the thesis. However, it seems that the thesis is more a means to train an independent researcher and is less valued than a publication per se, which has an overall higher value in academic circles. Perhaps what supervisors might offer during the process of thesis writing is what they have experienced, what they have achieved and what they consider to be most important from their point of view.

¹ Watson, G. (1987). *Writing a thesis*. London: Longman, p.3

² King, S. (2001). *On writing: a memoir of the craft*. London: New English Library.



◆ Research Career

A glimpse of reality: Academic careers in Hong Kong

Q1: Where are MPhil and PhD graduates heading to?

According to the faculty interviewed, approximately 30%-50% of MPhil graduates at the CUHK continue in higher education and pursue a PhD degree (the exact numbers vary among the various schools), while the remainder normally go into different industries. Professor Joseph Bosco from the Faculty of Arts said that their (MPhil graduates') careers are extremely diverse. "Some of them become school teachers; whereas others go on to marketing and market research, or PR (public relations)... all sorts of different areas." In contrast, the majority of PhD graduates normally stay in research at one of the universities. "Most PhD students, probably over 85%, continue with their research career," said Professor Yu Huang from the Faculty of Medicine. According to Professor Xiang Zhou from the Faculty of Business Administration, whose recent PhD students are almost all from mainland China, "Most of them will find an academic job at a university back in the mainland. Some of them find teaching jobs in Hong Kong schools, such as Hang Seng Management College, and a few of them may go into another profession, for example to work for a foreign bank as an analyst or consultant."

Q2: How difficult it is for a PhD graduate to find a tenured position?

Professor Yu Huang said that, to his knowledge, "only a few percentage of top graduates" are able to get a tenured position as "it is very competitive everywhere." In addition, according to Professor Wei-Hsin Liao from the Faculty of Engineering, PhD graduates "may not be able to get (such a position) immediately." Professor Joseph Bosco

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shared his opinion, saying that “we have a few recent graduates who are from Hong Kong are still looking for academic jobs.” Indeed, it is quite common for a doctoral graduate to take a few years to land a tenured position.

Professor Joseph Bosco attributed this delay to the fact that, “academia is adding more and more rungs to the bottom of the ladder; these positions are therefore occupied by a lot more people, which makes the path up the ladder even slower than before. What ends up happening is that there is a larger pool of people who are looking for permanent jobs, and so it becomes even more difficult for new graduates to find employment. As a result, they tend to ‘bounce around’ from one temporary position to another.”

Q3: Is there any frustration for doctoral graduates who may not end up in a (permanent) research job?

Professor Tony Tam from the Faculty of Social Science frankly pointed out that, “it is natural to get frustrated...but there is no way out. The only solution is to be well informed before getting into this type of profession. Frustration is most prevalent in PhD candidates who foolishly and blindly get into this situation and only realize their unsuitability for such as career when they fail. They say: ‘Teachers and peers recommended that I should pursue this career, but it turns out that I am not suitable.’ In this case, the best solution for tackling the problem is quite straightforward: Quit. Quit as soon as possible. The later you quit, the higher the price.”

Professor Hoi Ying Wong from the Faculty of Science offered some advice on how to handle the frustration of finding a permanent job: “Pure frustration is not helpful. Some people might quit their career completely and go to work in another sector, due to the constant frustration of searching for work. But graduates who have thought about it and can accept the possible consequences, will also understand

that some frustration is inevitable. Everyone has to go through it. Rather than letting your frustrations take over your life, it is much better to think about the next step.”

Professor Tony Tam also said that graduates should not think “that they are losers if they cannot get a permanent research job or that other types of employment are somehow inferior.” He declared that such a hierarchy of career choice is not proper. On the other hand, while acknowledging that those who aspire to get a job in research might certainly be frustrated if it does not happen, Professor Wei-Hsin Liao suggested that students today have a rather liberal mindset and are open to different career options. He mentioned one graduate from his department who rejected the offer of a Professorship and started his own company instead. “It is more a matter of choice,” said Professor Liao.

Q4: Do doctoral students have a narrower job prospect than master’s students?

The majority of the faculty interviewed answered ‘yes’ to this question. Professor Xiang Zhou also suggested several reasons why this might be so. “Number one, it’s often the case that PhD students focus on small problems; so they are very knowledgeable about their own area of research, but sometimes they cannot see the ‘big picture’. The second reason is that, as a PhD student, you have high expectations in terms of jobs, in terms of compensation, and in terms of a career path. So you may not be willing to do a lower level job, right? At the same time, potential employers think that a PhD graduate will expect a higher salary and a better package. Also, many employers do not require somebody with a PhD, especially in Hong Kong. Indeed, in jobs where a post-graduate degree is required at all, it tends to be a master’s rather than PhD that is most desirable. Employers may not need a PhD graduate because in Hong Kong there are not many research positions.” Professor Joseph Bosco added that, “there is also

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the fact that they (PhD graduates) are older and more set in their ways and so they may be harder to train.”

Professor Hoi Ying Wong provided another explanation: “The industry is very practical. In reality, while you spend years on research work for your PhD, you don’t usually have any substantial work experience. Employers worry that if they give you a job then you will not stay long in that position, and that you are simply using it as a springboard to something better.” While acknowledging the disadvantages of being a PhD graduate in the job market, Professor Wong advised that they should not feel too gloomy. “I believe that PhD candidates are usually very competent. I think they should not be too concerned of such disadvantages at the outset, even though they probably have to suffer for another two or three years. In addition, looking at the situation in another way, when graduates are using three or four years in pursuit of a PhD, their classmates are accumulating three or four years’ worth of social experience. However, those who are most capable, can spend the following three/four years in acquiring the social connections they need, and if they can outdo their peers, who by this time have about seven years’ experience, then they have done a great job. This is the price they have to pay.” Professor Wong concluded, “it might not be a bad or a sad thing; it depends on your perception.”

Supervisor’s counsel on pursuing a research career

Q5: What advice can you give to students who aspire to get a job in academia?

The general consensus among the faculty interviewed is that the publication record is of primary importance to the success of getting a tenured research position at a university. Both Professor Xiang Zhou from the Business School and Professor Wei-Hsin Liao from the Faculty of Engineering explicitly stated that, “having a good publication record is very important for getting a job in academia.” Furthermore,

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though Professor Joseph Bosco from the Faculty of Arts indicated that he does “not believe that impact factor is a valid measure of quality in the humanities”, he agreed that “publishing in reputable journals and becoming recognized in a particular area is important for tenure.” He suggested that this is a way for job applicants to “make a name” for themselves. For this reason, Professor Bosco always encourages his students to apply for grants and scholarships, “because this gives them practice in promoting themselves....it is an exercise in branding. (If you can get a grant to pay for your fieldwork, or for your PhD research, then you have branded yourself successfully. Your grant application has gone through the peer review process, and your project has met with approval.”

Another way for PhD graduates to gain experience in writing, while at the same time expand their list of publications, is to co-author publications. Professor Tony Tam said that he promotes the idea of “learning by doing,” and he maintains that students learn best this way. He suggests coaching students through the publication process: “Try to engage your students to work with you, and by this I mean co-authorship. I consider this to be a key form of internship. In addition to applying the ‘learning by doing’ strategy, you show the student the entire professional process, inside and out, not just the final form in print....and it is not only the learning process that is valuable, but also the end-product, the published paper. This also has a direct impact on a student’s curriculum vitae or résumé, and thus their future career. When you are able to establish your name, things become a lot smoother. For this reason, I believe this is an extremely important and valuable skill to develop.”

Professor Xiang Zhou also asserted that, “if a student really wants to work in academia in Hong Kong, then it is really important for him or her to have some overseas experience to improve their competitiveness.” He tries to provide opportunities for his students to interact with overseas scholars, in particular those who are well-known in their field. “The format might be to invite scholars to come to

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CUHK to give a seminar, or talk to students and give them suggestions and advice. I also try to provide opportunities for my students to go overseas, for example to attend international conferences, or to work during the summer as research assistants for overseas scholars who I collaborate with. In this way, students acquire some essential overseas experience and thus gain a better idea of what is happening in their research field internationally. Offering opportunities for the PhD graduates to work as post-doctoral fellows with overseas scholars is another option. Of course, a supervisor needs to carefully assess each student's potential and how helpful it would be to encourage this type of research experience, because it would mean that they might be living and working overseas for two years or more. A decision has to be made as to whether this time abroad would benefit their career (and lead to more publications), or not." The point, Professor Xiang Zhou reminded us, is not the "overseas exposure" per se, but what the student can ultimately gain from spending time working abroad. Students have to take the initiative and try to "make an impact with the research they do when they work with internationally-renowned scholars overseas." Professor Hoi Ying Wong echoed this point, and he said that he tries to emphasize the benefits of having a proactive attitude to promote a successful research career when he encourages his students to attend academic conferences: "You have to go to every conference with clear goals: first, present your research; second, try to attract others to pay attention to your research; third, pay attention to other scholars' research and seek opportunities to collaborate with them. If you do not have such conscious goals in mind, but just go to present a paper, or go to a foreign place to have some fun, I think the conference serves very little purpose and the resources are wasted."

Q6: How do you regard a contract academic position?

Most of the interviewed faculty consider that a contract teaching job is not a good option for graduates who aspire to have a career in research. Professor Wei-Hsin Liao said that in this position, "people

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may have much less time to work on research. As a lecturer, the teaching load in general is relatively heavy and so with this kind of job, it is hard to publish good papers.” Professor Joseph Bosco added that teaching positions might not be conducive to having a successful research career: “I think that PhD graduates who spend a lot of time teaching are wasting their time. I mean, you get a job based on your publication record, not on your teaching ability. Also, frequently these contract positions don’t offer the resources for conducting fieldwork or research, or for attending conferences and the like.” Whereas most of the faculty interviewed had a negative attitude about the idea of contract teaching positions, Professor Hoi Ying Wong did offer a possible solution for lecturers who also want to do research. He proposed that, “when there is a break between their busiest teaching periods, or after the first year when they have become more familiar with their teaching responsibilities and they probably don’t need to teach new courses, then they can pick up their research again.” He maintains the belief that “giving up research for the time being, does not equate to giving it up completely.”

Whereas a contract teaching job might be less beneficial in terms of a research career, the faculty interviewed agreed that research apprenticeship positions are a useful way to prepare graduates for a career in academia. Such positions are also on contract basis and take various forms, including research assistants, research associates, research fellowship positions, and post-doctoral research fellows.

Professor Hoi Ying Wong listed three features of a contract research position: “First, you have a mentor. While the relationship is not the same as a supervisor and supervisee, or professor and student, the mentor is normally an experienced senior researcher who can guide you through your research. Second, this is a real job (not a studentship) and as such it helps you to make a living, albeit a modest one. Third, academic research requires immersion, and even though you are on a contract, which is usually short-term, you are nevertheless provided with an environment to get thoroughly engaged with your

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research project. However, it can take time to become immersed; but even novice researchers will eventually understand the fundamental knowledge base, and the core theories of the discipline, as well as what sustainable knowledge that needs to be kept up to date.” Similarly, Professor Joseph Bosco agreed that “research apprentice positions can be a great opportunity as you usually have a low teaching load, and you can apply to do different research projects. You have colleagues to exchange ideas with, and that can be a wonderful way to begin your career. [Spending] two or three years concentrating on building your list of publications can also be very useful.”

Nevertheless, approximately half of those interviewed indicated that graduates should not stay for too long in a contract research position. Professor Wei-Hsin Liao said, “I mean five years is okay, in general, after they finish their PhD study. It’s still quite normal. But if a student stays for more than five years, then I do feel that they will have a lower chance [of getting a tenured job].” Professor Xiang Zhou was also concerned that graduates will become more anxious if they experience too much uncertainty imposed by a contract job. He considers that a contract research position “is just for a transition period (between the end of your education and a permanent job), so you cannot be in such a transient position for too long. You need to know when to stop. In the long run, you probably want to get married and have a family, and you have to raise your family. If there are too many uncertainties in your job as a researcher, then I don’t think it’s helpful.”

The future trends in academia and the implications for young faculty

Q7: What are the most significant changes that you think will occur in academia in the near future?

There are two main trends that the interviewed faculty anticipate will occur in academia in the near future: an increase in the use of

technology and more collaborative research.

Technology is exerting a major influence and reshaping the landscape of university life. Professor Xiang Zhou stated that he perceives, “more and more new technologies will be brought into the classroom, and the classroom will become more interactive.” Professor Joseph Bosco, however, indicated that he has some concerns regarding this tendency: “There is an increasing emphasis on the use of technology but I am not entirely sure how this is going to develop. I know that administrators are interested in video-taping lectures, and that more and more online courses are being developed, because it is very economical. This means that there is more pressure on the university to initiate this type of system because they can save money by reducing the number of teachers; a lot of students can thus be taught with relatively few resources. However, I don’t think that education works very well this way. Education works better when there is face-to-face contact between the teachers and their students. So while there are distinct advantages for bringing information technology into education because it is an inexpensive way to provide knowledge to a large number of people, I suspect that some elite universities will continue to use traditional teaching methods and they will offer a better product. In this way the gap between, say the private Harvard University types in the United States and the state universities may actually become greater.”

Collaborative research is also predicted to become a more dominant and influential mode of conducting research in the near future. Professor Hoi Ying Wong was just one of the faculty members interviewed with this forecast. “What I suspect is that fewer researchers will conduct their own research, as more collaborative research projects start to occur. An increasing number of inter-disciplinary research projects will also be observed. I think that this is due to the diversification of knowledge. It might not be enough for you to focus just on one field. The best way to cope with such diversification is to collaborate with others.” Professor Tony Tam had a similar prediction and illustrated what the end result might be: “I mean another trend will be team work

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in research. There will be higher expectations and thus even more pressure for the Government and the Research Grants Council of Hong Kong, and also the university to provide incentives to reward large-scale, cross-disciplinary, collaborative research. Those who are not in a big research team might end up being marginalized. A few years ago, this would not have been imaginable, but now, it is more difficult to get funding if you are not in a research team. You might have to fight very hard and still end up with a small amount of money. However, if you can successfully obtain a significant level of funding with a large-scale collaboration, then a group of people will benefit. Usually, such projects are not on a one-year basis, but might last for three to five years. Those who can make it and those who don't will live in two completely different worlds. I foresee that this situation will only become more dominating and unbalanced. This has happened already in the natural sciences, and it is now starting to occur in social science. I think it might even extend to humanities in the next ten years.”

Other countries in Asia are now also starting to emerge and gain influence in academia. Professor Xiang Zhou observed that, “Indian and Chinese scholars are catching up. I think that most of the good universities in China nowadays are focusing more on research, and focusing specifically on high quality research in order to obtain high quality publications. I don't know whether Chinese researchers are as good as scholars in Hong Kong and the US, but if they aren't yet, then they soon will be.” Professor Yu Huang thinks that our near neighbors are already there: “Nowadays, in this region, we are facing competition from Singapore, Korea and Japan, as well as mainland China obviously. Japan and Singapore are already very good, and Korea is catching up very quickly, while mainland China is developing incredibly fast.”

While the rest of Asia is growing, the faculty are not optimistic about Hong Kong's circumstances. Speaking about the state of local academia, they suggested that the research environment is changing in a way that prevents substantial academic growth. This is thus

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detrimental to the research achievements of the faculty in Hong Kong's universities. Professor Joseph Bosco has identified the "audit culture" in academia as being a very significant change: "In the audit culture, you are constantly being measured and assessed, such that your productivity doesn't count unless it is in some way measurable. People don't realize the degree to which academics are now constantly being monitored and evaluated. Now, more than ever, academics are being controlled by the university administration." Professor Tony Tam also compared the situation now with that from a few years ago: "In the past you could still survive even if you didn't do any research. Today, this is no longer possible as the University is now dual track. When the department recruits faculty, they expect people to do research. Therefore, everyone tries to obtain research funding. From one year to the next, the budget invested in research might increase a little, but by the time you include inflation, and the increasing number of qualified research proposals being submitted, the chances of actually being funded are becoming slimmer and slimmer. This results in a higher level of pressure for the faculty. If your proposal fails and you do not get funding, then this results in the whole department being collectively punished, as well as you being punished as an individual. I do not think this is a good trend and I hope that it does not continue in the future. This depends, however, on the whole budget planning by the Government; even the head of the RGC cannot give a final call. This is a structural issue." As a result, it is widely perceived that the academic market in Hong Kong can only become more and more competitive.

Professor Yu Huang also suspects that "competition will become more intense, which might put some people off choosing this type of career. It is too tough." Professor Wei-Hsin Liao, has also observed this same tendency in Taiwan: "Now, universities face an issue for PhD admission, with fewer and fewer people now applying to do a PhD degree when compared with before. The majority of students are interested in having a faculty position at university, but when they consider the job market, they now feel their chances are really,

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really low. So even at a top university such as the National Taiwan University, you can see that they might want to recruit, for instance, 1000 PhD students, but only 500 people apply. In the past, this didn't happen but now you can see it happens more often."

Q8: What are the implications of these future trends for young faculty?

If these anticipated changes are imminent then it seems that it is the young faculty who will be affected most acutely. Furthermore, young faculty who have to supervise students may suffer more, struggling between keeping a secured position in academia and playing an educator's role. Professor Tony Tam conveyed his reservations in this matter: "The interests of the new generation of faculty are not compatible with those of the students. I am in this sort of environment daily, and I can feel the tension and pressure. There are very few incentives for junior faculty to be student-centered; there are only disincentives. They have to fulfill certain requirements set by the department and the University, such as publishing a defined number of journal articles or attaining research funding in order to stay on. However, all the additional time spent trying to accomplish these goals result in less time being available for supervising students. When you give one minute to a student, you have lost one minute for yourself. Even if you are willing to work longer hours, it is at a high cost. I believe that young faculty today are under tremendous pressure, and they do not have our advantages (as senior faculty) to fight against such disincentives and demands. They suffer, or more likely the students suffer. As it stands, this type of work environment is set to continue in this unpromising direction, and get ever more competitive. I can hardly see a good way out, but we cannot pretend that nothing is happening; someone is paying the price."

Professor Hoi Ying Wong suggested that junior faculty should exercise discretion when deciding whether to take a PhD student: "The junior

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faculty should be clearly aware of their main goals early in their career. These include how to collaborate with other senior faculty and how to develop their expertise. There is not the same need to supervise students. It is already very demanding if you want to survive the first six years.” He cautioned that, “it is better not to take a PhD student just for the sake of taking a PhD student. ‘I hope to have some experience in supervising PhDs, so I am going to take some students.’ This is not how it works. When I decide to take on a PhD student, I first decide if there are mutual benefits. As a junior faculty, you have to do the same. You have a lot of work to do, but you might notice there is something new in your field that is worthy of attention. If there is a competent and well-motivated student who would like to pursue a PhD, and you foresee that he/she might become a good research partner, then in this case, I think you can take them on. Of course, the student has to be proactive, because him/her will be responsible for most of the research tasks, with you, the supervisor providing the vision and direction. You still have to invest some of your time, but there are also obvious benefits, and in this way you might achieve equilibrium.”



FEATURE INTERVIEW

Interview with Professor Thomas Lee

Department of Linguistics and Modern Languages

Q: In your experience, what are the major strengths and weaknesses of CUHK's research students? If there's one thing you want them to change, what would it be?

Our students have the benefit of a sound basic training in their respective disciplines, and are familiar with the norms of academic research. They enjoy rich library resources, and reasonably good funding support for conferences and field trips, etc. Our students acquire skills in the operation of research facilities and equipment relatively early.

The weaknesses of our students are a lack of general intellectual curiosity about ideas, an extremely low amount of reading in the classics, and a commonly observed myopia in their research scope, focusing only on the issues that bear directly on their theses. Our students also lack intellectual ambition.

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Q: If there are a few things that your own research students must have, knowledge, skill, attitude, character trait, etc., before or during your supervision, what are they?

I would expect my students to take the pursuit of truth seriously and not just get by to secure a degree. They need to do a lot of background reading, and then come up with research issues that they find genuinely interesting and engaging. They need to be honest with themselves, and in their attitudes toward knowledge, and be able to withstand hardship.

Q: Do you find research students' conception of research an issue? Specifically, do you see any common and major misconceptions?

Many graduate students are satisfied with merely replicating what other researchers have done, perhaps merely extending earlier results in a small way, and get published quickly. This is fine, since much of scientific research consists of mopping-up operations, as Thomas Kuhn put it, and establishing a publication record early is important for survival these days. But clearly, research that primarily consists of replication is deeply unsatisfying.

It is also very difficult for a novice researcher to assess whether a research issue is meaningful or significant, and whether a solution to a problem is a good one. It seems to me difficult to develop this kind of judgment without a broad exposure to ideas and results, not just in one's field, but also in other fields. The history of my own discipline—linguistics—is full of examples of cross-disciplinary influence, for example, the use of formal logic and set theory in the characterization of grammar and meaning, or the use of social cooperation principles in explicating the dynamics of communication, or the use of signal processing methods in the analysis of speech,

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etc. That's why I consider it crucial for research students to have a broad intellectual interest.

Q: In your opinion, what would a good supervisor-student relationship be like? For instance, how “close” would you want your students to get to you? How do you see your responsibilities towards them?

The supervisor-advisee relationship is clearly a mentor-mentee relationship or a master-apprentice relationship. It is necessarily an intimate relationship as the teacher and the student naturally share a lot of values about approaches to research, the role of scholarship and ultimately what counts as a good life. They work together to produce new knowledge.

I think Noam Chomsky put it very nicely:

“Studying is more a form of apprenticeship than anything else. It's kind of like learning to be a skilled carpenter. You work with somebody who knows how to do it. Sometimes you get it, sometimes you don't get it. If you get it, you're a skilled carpenter. How it's transmitted, nobody can say. Science is a lot like that. You just sort of have to get it. The way you get it is by interacting.”²¹

Personally I share with my students not only my interests and experiences in my own field, but also things that I care about a lot, including my aesthetic interests (for example, my interest in literature and film), and perhaps also my very ill-informed views of society and history. I also learn a lot from my students about their perceptions of the world, which could be sharper and more enlightened than mine, as in areas such as the environment and gender.

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As a teacher, I care about the psychological well-being of my students, but I also recognize that there is a limit beyond which I may be overstepping the line. I am generally not very interested in the details of my students' personal life, except at the level of ideas and knowledge.

Q: There seems to be a major difference in research supervision practice on the distinction between faculty research and graduate research. The distinction may be made more or less, as a matter of personal preference, or general practice of the field. What do you think?

There is a great diversity of research and pedagogical styles among teachers. Some professors may lecture in a very structured and organized way, with long handouts to help the students. Other professors may prefer to be spontaneous when expressing their ideas in seminars, and emphasize student initiative and classroom interaction, leaving the students to pick up the organized information on the lecture topics by themselves. It is hard to say which style of teaching benefits the students more.

Likewise, I've seen different modes of interaction in research supervision. Some supervisors require students to follow a strict regular schedule and expect a steady output from students. Other supervisors are more permissive, giving a lot of freedom to students as long as in the end they produce decent research. Some supervisors involve students in their own projects and publish papers with students; other supervisors encourage students to come up with their own research topics and take the research entirely in their hands.

An important part of their training as graduate students is to learn to adapt to professors and researchers of different styles, and be able to benefit from all of them.

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Q: Are there major factors out of your control here that make research supervision complicated, or even difficult?

Factors such as the size of the research student quota assigned to one's department, which depends on KPI figures such as the number of GRF grants awarded to a department, are beyond our control. The university policy to encourage admission of doctoral students over MPhil students will work against the grooming of local students to become researchers. The best of our undergraduates may not be able to decide whether they want to commit themselves to a full-time research career. They may not want to enrol in a doctoral programme at the time of graduation. The MPhil degree provides a basic research training for students of this type.

Q: Do you have any further comments on the challenge of supervising research students in CUHK?

The ultimate challenge is to cultivate in students a strong level of intellectual curiosity, boldness in critical thinking, a deep commitment to their disciplines, particularly in the context of the disciplines' development in Hong Kong and China, a solid grounding in the basics of their field, and an ambition to excel in their field. I would say the number of graduate students that we have who carry these traits is the best KPI of our postgraduate education.

¹ Chomsky, N. (1996). *Class warfare: Interviews with David Barsamian*. Maine: Common Courage Press.



APPENDICES: INTERVIEW REPORTS

Appendix A – Research Study in University

❖ Research in Academic and Non-academic Institutions ❖

“Academic research is for research’s sake.” Academics conduct research out of intellectual curiosity and with the aim of generating knowledge. When knowledge is regarded as a type of capital that can be traded as a commodity to enhance economic development, research is conducted for other reasons. The pursuit of truth is not the ultimate goal of all research. This paper examines the differences between research within and outside academia. Some features of research are comparatively better in universities, and this attracts scholars to this environment. Individual interviews were conducted with eight senior faculty members at the Chinese University of Hong Kong (CUHK). They were asked about the advantages of doing research at a university, rather than a non-academic institution. The faculty members listed the comparatively favourable elements found at universities, but also mentioned the challenges of doing research in this sector. Despite different goals, academic and non-academic research complement each other; they can come together in research collaborations.

Advantages of a university environment for conducting research

Academic autonomy

Academic autonomy (here, this refers to the freedom of individual

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academics rather than institutional freedom) is regarded as fundamental to good academic work. “In the university, we have freedom to do curiosity-driven research.” “We are able to do some interesting and creative projects that are not tied to any groups that have some vested interests, such as monetary interest.” Individual academics stated that research is for the discovery of truth without interventions from stakeholders. The topics of university research are based on individual choices, rather than institutional choices. In contrast, research in non-academic institutions (e.g., public or private organisations, government, media, etc.) is highly driven by external forces, such as market demands, policy, etc. For example, research in commercial industries is characterised by a top-down process. Projects are usually assigned by upper management and the goal is profit making. Research freedom is constrained by marketing demands.

A ‘product’ is the goal of research conducted outside academia, whereas in academia no concrete research outcome is necessarily expected. The focus on profit making or policy decisions, for example, results in a compact time schedule for research conducted outside academia. As academics may not have the need to create a ‘product’, they have more freedom in designing their research agendas. Projects can take three to four years, for example, which is longer than most non-academic research projects.

Academic community

“Universities operate within an international framework and are not constrained by the borders of the nation states.”¹ The flow of knowledge is not territorially restricted, especially in the era of globalisation. Academics receive feedback on their research from all over the world through peer reviews and other mechanisms. They gain recognition within their discipline across the world. The international connections between scholars and universities are the platform for the exchange of knowledge and ideas.

“Universities are also good because they are places where different

¹ Brew, A. & Lucas, L. (2009). *Academic research and researchers*. Berkshire: Open University Press.

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levels of people (undergraduate and graduate students, junior and senior professors, etc.) get together and discuss [research].” Academics come from all over the world, with different backgrounds and diverse perspectives on research problems. Sometimes, “students can provide very interesting angles on problems”. In addition, universities are hubs of knowledge, which favour multi-disciplinary collaborative research projects and multi-disciplinary fields. For example, more integrative research can be carried out in the field of sports and physical education, which is an interdisciplinary programme. Knowledge of biological and behavioural sciences can be brought together within a university in a single research project.

Education aspects

A significant difference between researchers at universities and those in non-academic institutions is that the former engage in both research and education. “The advantage of being in academia for research work is that you have students who you can influence.” Academics have faith in research education, which involves training post-graduate students so that they can make future contributions to their fields. This encourages the continuation and development of research in certain fields. In addition to being ‘research active’ scholars, academics also engage in undergraduate teaching for knowledge transmission.

Constraints of a university environment on conducting research

Resources

Human resources (e.g., administrative staff, assistants, etc.) and facilities (e.g., library, technology, etc.) are available at universities. However, the scope of research undertaken by academics in certain disciplines such as science or engineering is constrained by the high cost of resources. ‘Expensive facilities, equipment or huge proprietary databases may not be available at a university.’ Thus large-scale research projects in these fields are better suited to non-academic institutions.

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For example, studies of the reliability of electronic devices and drug research are usually conducted by non-academic institutions.

Competitive funding and institutional incentive systems

Certainly, academics enjoy academic autonomy in their research agendas. Yet at the same time, their freedom is constrained by funding and the incentive system imposed by their universities. In particular, research practices that promote an academic's reputation are strongly related to 'academic identity'. These 'inputs' (e.g., funding) and 'outputs' (e.g., publication) inevitably cause subtle changes in what is researched. Academics face a conflict between 'important research' and 'well-funded research'. Research in the humanities and social sciences, which are less 'lucrative' fields that may not have clear research outcomes, face greater challenges.

Furthermore, academics may endeavour to have their research published in international journals. Due to globalisation, research at the local level faces great challenges and is not highly valued on the international stage. Academics try to strike a balance between meeting international demands/standards and their own research interests. Individuals may choose to do very localised research, which may be highly important to a specific field, but this may not be rewarded by the university system. Scholars who believe in conducting 'important research' may choose to leave academia and continue their research elsewhere. A study of Cantonese opera by Leung Pui Kam is an example of good research conducted outside academia.

Relationships between academic and non-academic institutions

Research collaboration occurs within institutions (across disciplines) and across different sectors (academia and industry, for example). In today's knowledge society, collaboration emerges to meet professional, political, economic and social demands. The growing importance of interdisciplinary fields and various external forces have given rise

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to intra-institutional and even inter-sector collaborations that allow knowledge to be pooled and transferred.

Inter-sector collaborations can exist with or without explicit agreements. There is a complementary relationship between academic and non-academic institutions, which can be attributed to the different nature of research in these two sectors. Universities conduct basic research, whereas technological and product research is undertaken outside academia. University research continues to pursue truth, whereas non-academic institutions can use these research discoveries for product production, policy making, etc. A clear division of labour can be found. For example, universities may encourage research into primary carnitine deficiency and the pharmaceutical industry can later make use of these research findings to develop new drugs.

Sectors also come together and work on common goals. The collaboration between the Department of Management at the Chinese University of Hong Kong and the Labour Department on research into emotional intelligence is an example. Research outcomes are then disseminated outside the research institution and improve human management. This type of research has a specific purpose and a practical value.



“Academic” Research at University



Research at university mainly focuses on the generation of new knowledge. This knowledge is normally theory-based, and thus “not very practical”, such that a useful product is not immediately available. Longer periods of time are required for the knowledge gained and theories defined to have an in-depth and widespread influence on our society. In addition, the research conducted at university may not be in response to current social problems or issues. Researchers are simply striving for the truth. The research conducted in a university setting has traditionally been seen as academic discourse within an ivory tower. However, in recent years, the public have kept a sharper eye on the practicality of research. Knowledge transfer is now in vogue. With universities now increasingly trying to meet the expectations of society, should academics compromise their basic values when undertaking university research? Going back to address some core questions, what are the values of academic research; and is it still important for university scholars to endeavor to conduct academic research? A number of reflective ideas are raised in the following series of interviews, which are illustrated as academic values, practice and habits.

Academic values

Academic research is required in order to obtain novel information or to create new knowledge. New knowledge can be defined as the truth, whereby seeking for the truth is the main rationale for academic research. The word “Academic” is defined as “to be judged by no other standard than the truth”. In the pursuit of intellect, researchers in university have a strong interest in chasing novel ideas and being the first to discover new information in their chosen field. This is more attractive to them than conducting research in order to obtain a product, or conducting research that is problem-driven. Academics

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meticulously delve into issues during the process of their research and in order to enhance human knowledge, they make every effort to pursue the truth.

Notwithstanding the fact that new knowledge is revealed, academic research should also have some educational impact. Researchers also have the responsibility to disseminate new knowledge to the community, including scholars, students and the general public. Researchers at university tend to publish their research findings in top-tier academic journals, since their data might prove to be relevant to scholars in related fields. They might also share their research findings at conferences and in seminars so as to inspire scholars in their own discipline. The publication and presentation of academic research therefore facilitates yet more research, which subsequently results in an advancement of the field. This is what motivates researchers at university the most. However, many researchers are also teachers when they disseminate the knowledge they have gained to students during lectures. This helps to sustain and enrich human development further. Whereas researchers who work for industry are expected to keep their discoveries private, those in academic institutions are encouraged to publicize the outcome of their research. Their research findings are made freely available to everybody. Indeed, it is important that researchers are willing to share their data among the community for further investigation.

Academics are required to show initiative in having close connections with fellow researchers both in their own field as well as in related disciplines. They “need to respond to what intellectual scholars are interested in” even though they conduct research in their own field of interest. Since these scholars are pioneers in their own area of research interest, they may also make an impact on discussions of other unrelated issues. Therefore, it is important for researchers to know about the various theoretical issues that are topical at that time. Having a closer connection with the wider academic community and not just with the local one, would undoubtedly open the local

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researchers' eyes. Paying close attention to discussions held within the international academic community might also ensure that their research remains on the right track. Conducting comparative studies with fellow researchers in the field might also help them to formulate general theories, which again would help to advance their field further. In addition, researchers at university are keen to seek recognition from fellow researchers and granting agencies. Competing for famous grants is the norm in the academic research environment today, both in Hong Kong and overseas. This is a persuasive means for academics to showcase the quality of their research, demonstrating its value among both colleagues and grant reviewers. It is used as a measure of worth, especially in the Sciences. Researchers who are particularly talented should participate in famous grant competitions within their own and related fields in order to gain recognition from the academic community. "Researchers in university should take part in this competition instead of being audiences" as it is not just a matter of getting additional resources. In the field of humanities and social sciences, having the ability to publish their work in prestigious international peer-reviewed journals, is also an indicator for researchers to seek recognition from the international academic community.

Academic practice

Independence is one of the most significant features of conducting academic research. Researchers who work in industry experience a top-down system of management, whereas researchers in university are independent, with the senior administrators having no influence or say in what they do. At university, there are no stakeholders to monitor the research topics chosen or the outcome of the data collected. In addition to being able to work in an independent manner, without being under the control of a manager, academic researchers are also free from having to interact with clients. There are no 'customers' per se in academic research. The results obtained are supported by solid

Appendix A - Research Study in University

data and a level of objectivity and integrity is maintained within the university.

The lack of external influence in university also encourages research that is driven by curiosity alone. As academic freedom acts as the cornerstone or main foundation of university policy, academics can make their own choices regarding how they will advance the knowledge in their particular field of interest, without having to consider the requirements or priorities of their supervisor or manager. They are free to study a diverse range of topics. Researchers in university “do research on whatever they want to go deeply”. The range of academic research is therefore broad, in terms of both category and research boundary.

Researchers are encouraged to join in with various academic activities that are organized, instead of isolating themselves from the crowd. It is obvious that academics should participate in seminars and conferences held in their own and related fields. The sharing of ideas and communication of knowledge between fellow researchers is clearly something that benefits everybody. Such an exchange of ideas helps academics to become aware of both the advantages and disadvantages of conducting research in a particular topic. Moreover, being able to forge stronger connections with the great intellectuals in a community is especially important for the more junior members of academia. Furthermore, ideas should not be limited to remain within a single community; instead valuable findings should be exchanged between academics worldwide. Frequent academic gatherings such as conferences, meetings and workshops help researchers to get the most up-to-date information, which may subsequently facilitate their own ongoing research activities. Broadening their horizons may also have a major impact on focusing academics to identify the research that needs to be performed. Isolation prevents researchers from attaining their goals, or from keeping up with issues that scholars in their own or related fields are currently interested in. It is without doubt understood that any hesitation from researchers may hinder potential

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achievements in their particular research direction.

Traditional academic norms are now being overturned with the wave of new ideas and values from our society. Some universities risk their customs and end up by compromising what the public expect, whereas others endeavor to survive with their traditional values and practices in spite of the current research environment. However, depending on its particular standpoint, a university shows a propensity to select a certain type of scholar, and this predisposition probably indicates the character of its current researchers.

Academic habits

Certain habits can be found in the majority of academic researchers in a traditional research university setting. Strong creativity among researchers is significant. Since the aim of academic research is to create new knowledge, researchers at university must make an effort to be creative. Principal investigators encourage the more junior researchers, in order to give them incentive to discover new information for themselves. In addition to creativity, attitude is central to the spirit of academics. Those who can think critically and have a skeptical attitude are more likely to notice things that have never previously been discovered, or think of ideas or theories that have never previously been considered. Academics who have active research programs always think critically about the issues around them.

Habits of “research” should not be limited to campus life alone. Scholars also show intellectual curiosity when they are away from their normal university setting. They are willing to cross boundaries to do research even when it might take them outside their usual area of expertise. Take Noam Chomsky for example, who has been described as the ‘father of modern linguistics’ following the great contributions he made with his linguistics theory but who has also made a name for himself in media and politics. When scholars cross from one discipline to another, the concepts in one field might be extended to the other;

Appendix A - Research Study in University

this might facilitate developments in creativity in terms of ideas and knowledge transfer. To an academic, research is their way of life rather than simply a job. The values they treasure, and the practices they value in the research environment, are also applied to their daily life. There is no distinction between being on campus or off.



❖ **The Conflict between Academic Research and Teaching:** ❖
A Brief Report

Academic research, a notoriously difficult term to define, is the foundation of a modern university education. For an academic institution, high quality researchers are essential for success in the intensely competitive globalised university sector. For research students, active research projects provide valuable opportunities for learning and self-development. However, 'research' means different things to faculty and post-graduate students, and thus conflicts may arise in the research process. This short article considers such conflicts at The Chinese University of Hong Kong (CUHK). One-to-one interviews were conducted with eight experienced faculty members to discover the potential conflicts between the goal of finishing a research project and the goal of training students. The paper addresses the following questions. In which discipline is conflict more likely to occur? Is the conflict really a conflict for the faculty? In what circumstances might it be a problem? Is there always a conflict between research and education? The subsequent paragraphs are divided roughly into two parts, delineating the goal of research and the challenge of time.

There is no denying that the goal of research is different for faculty and students. To maintain a position in their fields, faculty must have research projects that are on schedule and of high quality, whereas students need to conduct research under a supervisor to fulfil the requirements of a post-graduate degree. In an interview, Professor Lee Hun Tak, the head of the graduate division of the Department of Linguistics and Modern Languages, stressed the importance of attitude. The 'sense of mission', according to him, is the first thing that needs to be instilled in a student. The goal of research is not only personal improvement, but also to contribute to the larger scholarly community. He argued that in many fields of the humanities or social sciences, it is essential that students have such a mindset. Students

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should “have a larger goal, a commitment to his or her own field; he or she must also see the important contribution one’s scholastic achievements can make to the larger civilization”, he said. In this sense, the issue is one of attitude.

With regards to goal conflict, Professor McBride Catherine Alexandra in the Department of Psychology extended the discussion to authorship. Publications are the main ‘product’ of academic research in many disciplines, and are very important to academic institutes, faculty and students. Like Professor Lee, Professor McBride argued that supervisors and students have different reasons for doing research. Faculties have to prove that their research is important enough to qualify for grants and thus they should be the principal author. Research students also need to publish as much as possible, to gain employment after graduation. According to Professor McBride, the conflict leads to the problem of credit attribution. In psychology, research datasets can be large and are collected by both professors and students. The joint effort to some extent blurs the question of authorship. As Professor McBride said, “it is easier to show that you are an authority in the field if you are first authored or senior in the field you authored. But you also want your students to do well and so you want your student to publish so that they can get hired later . . . there is a tension in publication.” For her, the challenge is to find a balance.

In addition to conflicting goals, time was identified as another common challenge for three reasons: research takes time, students need to be trained and given time to do research, and faculty have commitments other than research. First, there is the time needed to implement a research project, especially for research that involves a large amount of contextual evidence. Law, for example, focuses heavily on case-based research, but most cases cannot be easily studied in isolation; they are studied within a wider context. Professor David Donald said, “for every aspect of what you are doing, you have to understand the whole. And tasks are not easily delegated and answers tend to be holistic.

Thus a student's work will not border too closely on one's own." In other words, both the research itself and student training take time.

Professor Yiu Wing Yee from the Department of Management raised concerns about the time needed for student development. In addition to the students' research projects, Professor Yiu also involves students in her own projects to let them acquire more tacit knowledge. However, knowledge and skills cannot be acquired instantly, especially the skill of conceptualising phenomena in the real world, which is a very important skill in Business Administration. The training is a long-term process that needs step-by-step planning and guidance; thus the project may need to slow down to accommodate students' needs. "We can't expect them to be knowledgeable and experienced researchers—actually they are still very green. We need to be patient, to train them up, and can't expect them to accomplish all that we expect all at once", she said.

Furthermore, research is not the only thing that takes time; there is also the ordinary work of the department. Teachers at universities have hectic work schedules. Professor McBride stressed, "there are only a certain number of hours in every day. So being a research supervisor, you have some tensions there, between the needs of students and the needs of your own research." With limited working hours, faculty have to balance teaching, learning and research, which are equally important at universities.

Based on the above notions, it seems that there is a clear distinction between 'faculty research' and 'graduate research', and that conflicts can arise for a number of reasons. Yet, the situation is not the same in all disciplines. For example, two teachers in the field of science believed that there was no conflict between faculty and student research. "We do the research, so we train our students, and that is part of a university education", said Professor Xie Zuo Wei, Professor of Chemistry at CUHK. He argued that training students and doing research are two sides of the same coin. This demonstrates the relevance of the type

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of research being done to this issue. In the field of chemistry, most research is laboratory-based and it is mostly done by post-graduate students. During their research projects, students learn the practical skills of designing an experiment and collecting and analysing data. Also, students 'learn from failure'. In this field, research is a self-learning process. Teaching and learning are complementary to each other.

Similarly, in Medicine, Professor Tang Leung Sang from the Department of Chemical Pathology highlighted 'common responsibility' in research. According to him, research is not a one-man job; it relies deeply on collaboration between supervisor and student and both parties bear certain responsibilities: "I don't see any conflict . . . students have their own responsibility, teachers too." Responsibility, according to Professor Tang, refers to the roles of both parties, which are mutually beneficial to each other. The role of a supervisor is to guide and enlighten the student; the student's role is to assist the supervisor in the research project. Thus, research can be facilitated through communication: "I have to convince them, it is their project and they take control of it. Then the project will be done causally", he said. In this regard, the relationship and mutual understanding between the two parties is the key to a successful project. Success is highly dependent on how the supervisor guides the students and recognises their interests and personalities. This echoes Professor Xie's sentiment that there is no real conflict between research and training; the only difference is Professor Tang's emphasis on interaction. Research is not only a process to acquire new knowledge, it is also a medium to explore the character and the potential of a student.

Appendix B – Research Student



Student's Misconceptions of Research



What is research really like? Is it as the general public think that researchers do experiments with a test-tube in a laboratory and they obtain innovative results by accident? People from different backgrounds have a diverse range of ideas and views regarding the conceptions of research. What do students think? Their preconceived beliefs very likely influence their learning outcome and thus shape their research experience. From our interviews, research supervisors highlighted various misconceptions from their students about research, which may have affected their approaches to learning and research attitude. Under the constraint of a normative study period of three years, having an accurate view of research from an early stage may be beneficial.

Incremental and innovative research

Most supervisors interviewed agreed that research is exploratory in nature and involves the creation of new knowledge. This 'innovative' aspect indicates the importance of originality in research. As stated in the Code of Practice for research postgraduate students at CUHK, a qualified research graduate is expected to “*formulate original problems, and originate and develop solution methodologies*”.¹

However, it is not surprising that some research students are likely to engage in incremental research, which is to “*refine and extend an established research*” without a change in the core concepts/design². This kind of research is also regarded as “*doing better what we already do*,”³ which may contribute little to our current understanding. Incremental research may have its values yet it should not be the

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ultimate goal for a good researcher who should value innovative research more. Professor Huang Jian Wei from the Faculty of Engineering confirmed that, “You need to produce world-class research that no one on earth has ever done before. This is the exact definition of research.” The ultimate goal as a PhD student is not the completion of a project within the normative period, but to explore the unknown and bring a new understanding on current phenomena, which stimulates debates and extends the field further.

Professor Huang also said that research students are expected to produce significant and novel research and to be leaders rather than followers. Some supervisors realized that students may have a problem in understanding these criteria for conducting good research since they are abstract⁴. Several supervisors interviewed agreed, however, that having courage⁵ as well as an attitude of openness and sound knowledge of the field are crucial for a successful researcher.

Importance of questioning

Professor Lau Chi Sun from the Faculty of Business Administration stressed the importance of questioning. Supervisors commonly agreed that a significant research project will make a contribution both to the field and to society. Professor Lau suggested that one way to achieve this, is to formulate a good research question, which will lead to heated debates and make us reflect on our underlying assumptions. Sometimes even a ‘naïve’ question may challenge our pre-conceived beliefs. However, students may put more effort into acquiring knowledge or perfecting a research tool, which are both more concrete, than learning to formulate a good research question. While acquiring knowledge and skills are essential, students are also suggested to go beyond these and think of the significant value and contribution of their research.

Professor Lau not only raised the issue of the importance of the

research question, but she also emphasized the importance of having the ability and skills to ask questions whenever needed. She stated that students are just not used to being curious and asking questions, since this might not be the usual practice in our examination-oriented education system. Researchers need to communicate with people in their particular field of interest in order to obtain information and exchange ideas. Professor Lau shared her own experiences as a research student, and said that time is required in order to learn how to come up with a good question and ask it skillfully. A good question that is asked clearly and competently will lead to a continuation of the discussion and thus more information being shared.

An unbiased position in finding evidence

When conducting research, a hypothesis is formulated under certain assumptions. The researcher should then be in an unbiased position to collect evidence that may either confirm or refute the hypothesis. Having an assumed standpoint or predicting what the results will be before the evidence is collected might influence the whole research process, such as in the selection of the methodology used. This in turn may direct the researcher to collect so-called 'supporting' (but in actual fact biased) evidence.

Professor Wong Chu Nang from the Faculty of Social Science, agreed that research students may have this assumed position in research. When some students come up with a research question, they intuitively draw a conclusion or assume an answer for the question. They then tend to gather evidence to support their 'conclusion', which indicates that they implicitly assume that contradictory results will not occur. Their attempt to prove that something is 'correct' puts one in a biased position, in particular when one has a strong opinion regarding the question, and evidence against the pre-assumed position may be easily over-looked.

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Final remarks

The supervisors we interviewed believe that research should be innovative, original and problem-driven, as well as being of significant value both to the field and to society as a whole. Furthermore, they describe a good researcher as being brave, curious, open-minded, knowledgeable, independent, critical and objective. The supervisors' ideas may, however, not be consistent with those of their research students. Thus, an early identification of a student's conceptions (or even misconceptions) of research may indicate the supportive measures that might be implemented by their supervisors.

¹ Code of Practice: Research Postgraduate Studies, Graduate School, CUHK. August 2013.

² Henderson and Clark (1990)

³ Norman and Verganti (2012)

⁴ ["this is the ill-defined criteria...what do you mean significant enough?...professors will have different standards" - Huang]

⁵ ["I hope there is new discovery...you have to be brave...even the new explanation may not be comprehensive, as long as results/discussions do not contract with your observations, it is acceptable" - Yu]



Variations in Research Students



Several experienced supervisors at CUHK have raised their concerns on the ability of their research students, and they shared their views on the strengths and weaknesses of the students in general.

Expectations from supervisors on the ability of their students

Supervisors expect students to have some general knowledge about their chosen research area before they enter the PhD program. In particular, research in fields such as Chemistry, and Sports Science and Physical Education, are largely experiment-based. Research students are therefore expected to already have the practical skills and experience required to conduct experiments in an independent manner.

When they are in the PhD program, it is important for research students to be proactive throughout their research project. Supervisors do not expect students to simply follow their guidelines, but to think for themselves how to conduct their project and optimize the amount of research achieved, as well as the quality of results obtained. In other words, students have to drive their own research. Thus, it has been suggested that they need to be more open-minded, and to discuss questions with their supervisors and fellow students in a more active manner. Supervisors are always appreciative when students come to them with ideas about their research and to obtain their opinion and suggestions.

Research students are also expected to have a high standard of English language ability. To be proficient in writing, speaking and reading English is required both throughout a PhD and also after graduation as an academic. They have to be able to communicate in English in order to connect with other academics worldwide. However, as

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Professor David Donald from the Faculty of Law pointed out, this can be a challenge for students when English is not their first language.

In addition, it is preferable that research students have good interpersonal skills. The success of a research project may depend on the ability of a student to collaborate well with their supervisors and peers, as many tasks are performed with a team rather than alone. Professor Stephen Wong from the Faculty of Education mentioned that part of the research process might involve conducting interviews in order to collect data. A student with good interpersonal skills when interacting with an interviewee may enhance the quality of the interview and thus acquire better quality information. During their PhD study period, students may also have an opportunity to attend conferences or seminars. They therefore have to be open to discuss their research findings, exchange ideas and in some cases collaborate with worldwide researchers in their field, so as to optimize the chances of a successful research project.

Strengths of research students at CUHK

Most of the research students who are recruited at CUHK have an outstanding academic record in their undergraduate studies, with the majority of them being awarded a first class honors degree. In general, research students with an excellent academic record have a solid background knowledge of their own field. They are therefore well-trained with basic research knowledge and skills before entering the PhD program.

Moreover, most research students are hard-working, especially those from the Mainland China. They do whatever their supervisor tells them to do, and complete their tasks both accurately and efficiently. Professor Huang Jianwei from the Faculty of Engineering explained that “research students are capable of working very hard towards clearly outlined research objectives.” Professor Stephen Wong from the

Faculty of Education also mentioned that throughout the supervision process, most research students are highly devoted to their research work. “Even Saturdays and Sundays they are still working in the laboratory.”

Weaknesses among CUHK research students

On the whole, CUHK research students are found to be too passive when it comes to asking questions. The reason behind this might be the influence of the learning culture in Chinese societies. When at school, Chinese students are expected to stay silent for most of the time while they listen to the teacher. This is not an issue during their undergraduate studies when they attend lectures but when they enter the PhD program at CUHK, they still expect their supervisors to tell them what to do rather than being able to work in an independent manner.

Supervisors have also raised the problem of language ability. The level of English language usage among students, especially those from the Mainland, may not be as good as expected. Professor Lau Chi Sun from the Faculty of Business Administration pointed out that a great improvement in one’s language ability within the normative period of a PhD may be difficult to attain. Meanwhile, she suggested that students who realize their language constraints should work harder in reading and learning how other people write, practice more by writing conference and journal papers, and proactively seeking comments to improve their writings.

Research students also tend to rely too heavily on scholarly writing. According to Professor Yu Chai Mei from the Faculty of Science, students may believe too strongly in authority, such that they are not brave enough to challenge the traditional views in order to explore new perspectives with regards to their research topic.

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Supervisors also noticed that some students are less likely to engage completely in their research work. Professor Stephen Wong mentioned that this is more often observed in the local students. He also noted that students who show passion for their work, and who get deeply involved and are persistent in their research are more successful than those who simply have an excellent academic record.

◆ The Student-teacher Relationship in Research Supervision ◆

Post-graduate research can be considered to be a long-term collaboration between a student and his or her supervisor. There is no denying that university faculty have a considerable responsibility in supervising and guiding their students in order to lead them to become independent researchers in their own right. In many cases, the level of success achieved is closely linked to the relationship between the student and their supervisor. This essay focuses on the student-teacher relationship in post-graduate research at CUHK. We interviewed eight experienced supervisors and collected their opinions on the topic. Two main types of student-teacher relationship were identified as being ideal for a successful collaboration; they were: 'friendship' and 'professional' relationship.

Friendship Relationship

The normal duration of a doctorate degree in Hong Kong is three years. Unless a student is co-supervised by two (or more) faculty members, he or she normally receives one-to-one supervision. In this period, the teacher and student are not in the rather asymmetrical (i.e., formal teaching) relationship that a student experiences first at school and then at university as an undergraduate student. Rather, the post-graduate students interact with their supervisor on a daily basis as they spend much of their time working together to answer a common research goal. The relationship should, in other words, be close. "We are an academic family," said Professor Wong Heung Sang, Associate Dean of the Faculty of Education. "We share ordinary things in our life casually during gatherings. My students are just like my family members." Professor Yu Chai Mei also described his relationship with students. He emphasized that having a close relationship with his students helps to stimulate their development above and beyond their research experience, and the best way to maintain the relationship is

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to get close to the students in their daily life. “I reserve a tennis court on campus every weekend and invite my research students to join me,” he laughed, “anybody can come to challenge me at any time.”

The friendship that is formed during the three-year period of the doctorate degree may then continue after the study period has finished and it thus develops into a life-long relationship. Professor Huang Jian Wei told us that he always wants to establish a long-term relationship with the students both academically and personally. This enthusiastic supervisor from the Faculty of Engineering told us, “It is a life-long relationship; I hope that students can come to me when they have exciting news or challenges in their career.” Indeed, most of the professors we interviewed told us that they keep in touch with their students after graduation. Professor Yu is especially proud of his students who go on to become scholars in other universities. During our interview with him, he showed us a recent email. “This is the email one of my previous students sent to me yesterday. She is now an award-winning professor at a university in Mainland China. We still contact each other regularly,” he said. The friendship that develops between a student and his or her supervisor may also result in the establishment of a strong network of links with various top universities around the world.

Professional Relationship

The other student-teacher relationship that was mentioned several times during our interviews was a ‘professional’ relationship, a term that seemingly has the opposite meaning to that of ‘friendship’. According to supervisors, a professional relationship refers to an equal association on the basis of mutual respect. “The supervisor does not own the student,” stressed Professor Huang Jian Wei. “He only supervises. This means that he cannot, and should not force the student into conducting a particular type of research. He needs to communicate with the student extensively to find a project that

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is of common interests in the long-run.” For Professor Huang, a professional relationship is student-centered and so he often tries to reshape the projects in order to amplify the unique strength of each research student. In this sense, research supervision is exclusively a mission to facilitate student research and thus to benefit the student.

Professor Sun Hao from the Faculty of Medicine also talked about having a professional relationship with his students. Nevertheless, he believed it should be ‘mutually beneficial’ to both the supervisor and student. “There is no such thing as ‘student research’ in my field,” he stressed. “The major research force and the research work comes from the output of the research students... especially for the junior faculty; their success depends heavily on the success of their graduate students.” A professional relationship therefore implies a top-down guidance from the supervisor in a hierarchical structure. Professor Sun also indicated the differences that occur with students from the various cultural backgrounds, such as students from Mainland China tend to stay close to their supervisor, while Western students are more independent. He believes that an ideal relationship should be kept at a professional level, “we work together for the research, and there shouldn’t be too many personal issues involved,” he said.

Remarks: Relationship and Responsibility

The nature of the student-teacher relationship is a main concern during research supervision as it might directly affect the research. After a quick glance at the two types of relationship, we may need to focus on their correlation with a supervisor’s responsibilities. Does a particular relationship facilitate or impede the research work? Is there any conflict between a good relationship and the supervisor’s responsibilities?

From the interviews we conducted, we realized that the majority of supervisors successfully form a professional relationship with

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their students during the period of supervision, which subsequently develops into a close friendship after graduation. This implies that the two relationships are not mutually exclusive, but are complementary to each other. Mutual respect facilitates research at a professional level, while close guidance leads to a long-lasting friendship. As Professor Lau Chi Sun said, “an ideal relationship with students is a fifty-fifty, teacher-and-friend relationship. I won’t force them like a secondary school teacher, nor take care of them like their parents. As a supervisor, I will advise and guide them in their research; however, I will also read books and discuss these with my students every week, just like their friend.”



Appendix C – Thesis Research



On Thesis Writing



How much should the supervisor be involved in thesis writing?

Professor Mimi Zou from the Faculty of Law pointed out that, “doing a PhD is a process of self-learning and the role of the supervisor is to facilitate that.” Professor Sophia Jeong from the Business School emphasized that the supervisor is a “doorkeeper, who opens the door to academia.” Professor Helen Zhao from the Faculty of Arts suggested that when writing the thesis, integrating the theory is especially difficult, and this demands the supervisor’s special attention: “[My supervisor] kept an eye on the theoretical part for me, which was very helpful because that was what I had most trouble with. I can see that my students also struggle with the theoretical discussions. With regards to research methodology, once you explain to them what sort of information is required, then it is easier for them to write this section, but for the theoretical part, they always feel a little insecure. Sometimes, I have to keep a special eye when students prepare for this section in order to make sure that information that needs to be included is there and is clearly explained.”

What is the process of thesis writing like?

Over half of the interviewed supervisors revealed that they had a difficult time when writing their thesis. Professor Sophia Jeong recalled the time when she had serious doubts about what she was writing, and that for a while she even wondered if she had chosen the wrong path in pursuing a PhD. “At some point you will hate yourself”, she said. Professor Ehsan Bolandifar from the Faculty of Business Administration agreed, “Everyone has to go through this pain because

the learning process is not that simple.”

What is the secret to writing a good thesis?

The interviewed faculty all agreed that there is no universal golden rule for writing a good thesis, except to keep practicing. Professor Ehsan Bolandifar proclaimed that, “writing is very challenging. No one knows it when they begin, but it’s just a matter of experience and the only way to get experience is to write, write and write, revise, revise and revise. That is it. There are no shortcuts. You can only learn to write by doing it again, again and again.” Similarly, many of the supervisors revealed that during their PhD days, they might prepare over twenty drafts before their thesis was ready for submission.

Unfortunately, writing is not a skill that can be achieved overnight. It is largely a tediously recursive process, which demands a wearying amount of effort and a significant commitment of time, as revealed by Professor Mimi Zou, “writing, editing, writing, editing, until you get something that it is sort of okay. Many, many drafts - that would be my approach.” Dozens of turnarounds between the supervisor and the student seems to be the normal practice, and eventually, as Professor Zeng Hua Ling from the Faculty of Science concluded, “the final paper should look completely different from the first draft.”

How to develop the habits of academic writers?

When it comes to writing, simply remembering the rule of thumb to keep practicing is admittedly inadequate. The interviewed research supervisors offered a variety of techniques that they either adopt themselves or that they instruct their students to do when writing their thesis.

Several professors emphasized trying to develop a habit of daily

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writing. Professor Chin Ming Hui from the Faculty of Social Science considered it a very good way to overcome procrastination: “If you can keep writing for say half an hour every day, then when it comes to writing your thesis, you will be more efficient. On many occasions, problems arise when you suddenly have to produce 8,000 words in one week. That feels very tough. If you tell yourself that you can write a little every day, then this will be less stressful in the long run. And when you develop this habit, you may not feel as miserable as before.” Professor Hui also said that exactly what to write is up to the student – whether it is writing a manuscript, or preparing a life reflection, or creating anything on a coherent theme; the point is “just to write” and try to make it part of daily routine. Similarly, Professor Sophia Jeong suggested trying something that was recommended by her supervisor to tackle writer’s block: “Set a timer for fifteen minutes and then start writing. You just need to write for fifteen minutes.” She emphasized that it was the continual practice that mattered most, which led to the final target of being able to write without stress.

How to organize the writing?

Professor Lin Da Hua from the Faculty of Engineering revealed a common issue in relation to academic writing: “When I read the student’s work, I have a feeling that I cannot follow him after the first two pages. He failed to maintain a logical flow. When a professor writes, he always has the whole picture in mind, so that he will not deviate when describing his ideas.” Professor Lin considered that a combination of coherence and precision defines academic writing, when he said that ideally, “every sentence should serve for the ultimate purpose.” To achieve this goal, Professor Mimi Zou recommended using a mind map as a visual tool “to see where your ideas are going and draw links between your ideas,” so that the student remains consciously aware of the development of his/her thoughts when writing.

What are the available resources to enhance writing?

Even though writing is essentially a lonely occupation, there is a community of academic writers to whom the inexperienced can turn. Professor Ehsan Bolandifar encourages his students to learn from accomplished academic authors. He believes that the existing literature provides some very useful instructions for students on how to write. The students should be able to identify authors in their field who are famous for their writing and “see how they try to cook everything together, to put everything in place”. He advised, “not just to read this literature as a way of understanding the problem, but also as a way of understanding the writing - how an author communicates the story.”

Would professional editing help or not?

Professional editing is a thought to be a useful service for some, but in terms of how it may benefit the students, attitudes differ among the interviewed supervisors. While faculty from the Sciences tend to be more cautious about recommending professional editing, which they fear may hamper independence, the faculty from Humanities, Social Science, and Business are more in favor of such a service. Professor Sophia Jeong considers that professional editing is not in fact writing, as it “does not really touch the ideas” and “it is purely superficial”. In addition, Professor Zhao Yun suggested that it would be good to have the thesis read by someone other than the supervisor, as the latter is too familiar with the content and usually only has time to quickly look through it. A professional editor does not only “offer language help”, but also provides an outsider’s perspective to see if the writing “makes good sense to an educated reader.” As far as Professor Zhao is concerned, this constitutes a crucial component in the preparation of a quality thesis.



Submission, graduation, and publication: Dealing with the quality, timing, and expectations



How to decide if a thesis is ready for submission?

It is not necessary to wait until the last minute to determine if a thesis is ready. Ideally, the supervisor has to be able to tell somewhere in the middle of the writing process if a thesis meets the required standards. Professor Mimi Zou from the Faculty of Law said, “if you are a good supervisor, then I think that by the time that students are half way through their PhD, you should be already able to tell whether they can make the three/four-year deadline. You shouldn’t get to a point where your student is at the end of their fourth year and the standard is bad.”

In terms of determining whether a thesis is ready for submission, Professor Helen Zhou from the Faculty of Arts suggested that, “as long as all the sections – theories, methods, analyses, and discussion - are included, and it is clearly explained, then I think that it is essentially done.” From an internal standard point of view, the completeness of this basic structure constitutes a good reference point. On the other hand, some supervisors rely on real or hypothetical external examining standards, for instance, the threshold of acceptability of a thesis committee. Professor Mimi Zou maintains that a thesis should “get to such a standard that it will not be referred back [to be rewritten], which would be devastating for the student’s confidence.” Professor Lin Da Hua from the Faculty of Engineering also suggested that the student “look for an audience who has basic knowledge of the field; if they can make sense of the thesis draft and comprehend the main points, then I think that the student can build on the current structure and start to polish the details.”

Are there any other pressures for graduation?

Given the three/four-year timeframe for undertaking PhD studies, time is a critical issue. Most of the faculty interviewed believe that supervisors are obliged to ensure that their students maintain the momentum and complete their thesis in time, and that students have to be very self-disciplined in order to meet the required target in terms of both of quality and time. This can be very stressful, and the current system of funding of research degrees in Hong Kong adds more weight to such stress. Professor Helen Zhao said, “In my previous PhD program in the US, if you needed more time, then you could still receive funding from the university. But here in our department, after 3 or 4 years, you don’t get any more funding. This has very serious financial implications for students, and so (as supervisors) we need to make sure that they stay on track.”

How to balance between perfection and submission?

Professor Mimi Zou advised that candidates should not aim at perfection, as some students might prolong the normative time period in order to strive for a perfect thesis. She confirmed that, “the supervisor’s role is to say, ‘this may not be a perfect thesis, but there is no such thing as a perfect thesis.’ This is something that PhD students need to realize, that it’s never going to be amazing, okay? You only have three or four years, and as you are coming to the end, it is so dangerous for you to think ‘maybe I can take another few more months, I am going to make it perfect’. It is never going to happen. There is always a deadline.”

Professor Helen Zhao also shared her thoughts on how students should perceive their thesis, when she quoted a colleague’s comment: “When I look back at my own thesis, I feel like there are so many things that I should have addressed, so many things that I didn’t notice. At the same time, though, I noticed some very smart statements that I had

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made, statements that I probably cannot make now.” She therefore tends to instruct students under her supervision that, “given the time you have, this is the best you can do.”

Is a publication required for graduation?

In general, having a publication is not a pre-requisite for graduation. Expectations regarding publishing post-graduate research tend to differ between disciplines and degree type. These expectations differ depending on the relative ease of publishing in the particular field. For example, being able to publish the work from a PhD research project might be less realistic in the soft sciences. Professor Ehsan Bolandifar from the Business School asserted that, “I cannot say that it [a publication] is required because all of us know that it is very difficult to finish a paper from the beginning to the end in two and a half years in our field.”

How would having a publication help?

Though it is not required, the benefits of having at least one publication are obvious. It helps the student to produce a better thesis as the writing skills are developed through the process of preparing a manuscript, and the student’s work is examined by a reviewer, chosen by the journal editor, who is an expert in the field. Thus, if the work has been accepted for publication then it is unlikely to be rejected by the thesis committee. Professor Zeng Hua Ling from the Faculty of Science observed that, “when a student has a certain number of publications, the thesis is usually of better quality.” He mentioned that although having a publication is not an official requirement, “some members of the thesis committee might have their own standards. Some would question whether the student is qualified to have a PhD if he/she has no publications.” Thus, he suggested that it would be safer to have several publications at hand before undertaking the oral

Appendix C - Thesis Research

defense.

In reality, to publish is less important for the purpose of graduation, but is of more value for the the student's academic career. Most faculty agree that a publication will provide students with "more options" if they aspire for an academic career. Professor Sophia Jeong from the Business School spoke directly, "it is not a requirement of the program, but it is a requirement of the market Students can still get a job in mainland China without a publication. However, if you want to get a job in a good school in mainland China or if you want to go to the United States, Hong Kong or Singapore to work, then you need publications."

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The research supervision website is funded by the Teaching Development Grants for the 2012-15 triennium. Collaborated with the Graduate School, CLEAR develops this comprehensive online platform.

The purpose of this website is to provide no time and boundary limited professional development resources for research supervision. These resources help research supervisors to attain good supervisory skills, thereby ensuring the entire teaching force within CUHK is equipped to achieve an excellent level of teaching quality.

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Professors interviewed (in alphabetical order)

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Prof. DONALD, David	Faculty of Law
Prof. HUANG Jian Wei	Faculty of Engineering
Prof. HUANG Yu	Faculty of Medicine
Prof. HUI Chin Ming	Faculty of Social Science
Prof. JEONG, Sophia	Faculty of Business Administration
Prof. LAU Chi Sun, Dora	Faculty of Business Administration
Prof. LAU Kowk Ying	Faculty of Arts
Prof. LEE Hun Tak, Thomas	Faculty of Arts
Prof. LEUNG Seung Ming, Alvin	Faculty of Education
Prof. LIAO Wei Hsin	Faculty of Engineering
Prof. LIEW Soung Chang	Faculty of Engineering
Prof. LIN Da Hua	Faculty of Engineering
Prof. McBRIDE Catherine Alexandra	Faculty of Social Science
Prof. SUN Hao	Faculty of Medicine
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