A Handbook for Postgraduate Supervision
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Foreword

It is undeniable that as the nation progresses, postgraduate education plays a more pertinent role in generating new findings and discovering knowledge. The right roles played by postgraduate students and their supervisors ensure quality research output and quality graduates. New ideas, enthusiasm, and vibrancy brought about by postgraduate students can challenge supervisors to fresh research perspectives, and enrich academic experiences. When things go well and a student graduates, the supervisor is full of pride and feels not only that the hard work was worth it, but also how privileged one is to have played a role in the student’s growth, learning, and success. However, it is on very rare occasions that the journey is smooth. One reason for this is the poor quality of supervision or poor understanding of the roles supervisor have to play.

Being a supervisor, next to being a parent, is one of the hardest jobs around. Undertaking this job is a labour of love, with the capacity to nurture the next generation to a successful career and life. It is very challenging and time consuming but can be immensely satisfying, gratifying, and rewarding, as well as at times, very stressful and disappointing. Frustrations for both parties happen, especially when the expectations between supervisors and supervisees do not match and are not made known to each other. The journey for both supervisors and supervisees then becomes dangerously uncomfortable. Those embarking on a journey as a supervisor must therefore understand these roles and duties, as well as the code of practice of a good supervisor. This is very complex and often underestimated. We must understand that the duties of a supervisor do not end until the supervisee graduates.

Who can be supervisors? What are their roles and obligations? How to supervise, guide, and monitor the supervisee’s progress? Is there a code of practice which supervisors must adhere to? How to handle students? How to hold the supervisee’s hands (if necessary) and guide them to walk in the right direction? These are among the questions that often linger in the minds of a new supervisor.

With these questions in mind, an initiative was taken to produce this handbook for postgraduate supervision. The contents of this handbook are based on feedback, complaints/comments and the authors experiences. The handbook aims to ensure that students receive good supervision and the supervisory relationship is enhanced. We hope that this handbook will be used as a guide for new supervisors, as well as a revision for experienced supervisors. The handbook also includes information on software that is useful for both the supervisors and students.

This handbook would not have been realised without the full commitment of all parties involved. I would like to extend my appreciations and thanks to the contributing authors, reviewers and editors, and all parties who have contributed directly or indirectly towards the publication of this handbook. The support of the Ministry of Higher Education, Malaysia, is highly appreciated.
It is our hope that all Malaysian Institutes of Higher Learning will make it compulsory for new academics to undergo a supervisor training programme prior to supervising postgraduate students. This handbook will be a good guide in such training programmes.

**PROF. DATIN PADUKA DR. AINI IDERIS**
Deputy Vice Chancellor (Academic and International)
Universiti Putra Malaysia
Preface

There has been a presumption that having a PhD in itself is enough to guarantee effective supervision. However, supervising postgraduates requires specific knowledge and skills.

This handbook exposes both new and experienced supervisors to some of the good practices in supervision. It draws on examples from a wide range of countries and from the experiences of Malaysian supervisors. Divided into eight parts, this handbook focuses on the following issues.

- Facilitating the transition from undergraduate to postgraduate studies
- Good practices in supervision
- Assisting students to write
- Assisting students with publishing
- Examination and Viva
- Developing a vibrant research culture
- Concerns in supervision
- Resources and software for supervisors

*A Handbook for Postgraduate Supervision* focuses on the knowledge and skills that support the supervisor to establish a close but professional working relationship with students.

Vijay Kumar
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CHAPTER 1

Facilitating the Transition from Undergraduate to Postgraduate Studies
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INTRODUCTION

(1) As the learner moves through the educational system, each stage marks a rite of passage which carries with it new challenges that generate new needs and require adaptation to a different way of life. The extent to which these needs are satisfied and the extent to which the individual is able to adjust to the new environment directly influences the individual’s motivation and, ultimately, the ability to satisfy the demands of the institution.

(2) Entering Higher Education can be an even greater challenge, since it coincides with and marks the acceptance of the individual into the community as a legally recognised adult. Often, this is also the first occasion that students are away from their parents and friends and this requires them to adapt to a new life: new campus, new programme, new teachers, new classmates, new food, new accommodation, and new friends.

(3) Becoming a postgraduate in the institution from which they gained their bachelor’s degrees can be problematic in subtle ways. In particular, the attitudes of the “same” academic staff to students’ change. For example, an academic staff may no longer monitor in the overt way they did with undergraduates and progressively shift their teaching styles away from instructing to facilitating individual learning. Going to a different institution, especially in another country, can be even more challenging or traumatic.

(4) The beginning of each stage is, in contrast, usually less clearly marked. Although there is likely to be a prospectus issued by the institution and often some kind of formal or informal induction, the responsibility for easing the transition falls mainly on the shoulders of teaching staff (teachers, lecturers, and supervisors).
HIGHER EDUCATION AWARDS

(5) In most tertiary institutions, normally there are four kinds of awards: Bachelor, Postgraduate Certificate/Diploma, Master and PhD.

(6) These awards usually have research components that involve the student writing an extended text: such an exercise usually requires supervision by a faculty member, a supervisory committee or a faculty member who works with a colleague from industry.

(7) These extended texts are dependant for their characteristics (such as length, scope of research, style of writing) on the kind of awards conferred and the mode of study (coursework, coursework and research or purely research).

(8) A Bachelor Degree normally prepares students for entry into general employment or postgraduate programmes. It is awarded to individuals who:
   a. Demonstrate understanding of the fundamental principles and practices in a field of study that they have pursued in their tertiary institution;
   b. Translate this understanding into acquiring the knowledge and skills that are relevant for them in their field of employment or further study;
   c. Apply this knowledge and skills effectively and efficiently in the workplace or educational setting;
   d. Use the relevant soft skills (such as communicating effectively, working individually and in teams and being independent and creative); and
   e. Demonstrate independent study skills which will lead them to a high degree of autonomy.

(9) There are two distinct types of postgraduate certificates/diplomas. The first is fundamentally academic in its orientation and follows on from the bachelor degree to prepare for further study at masters level. The second has a professional orientation, and is likely to occur after the masters degree, and is a prerequisite for membership of a professional body.

(10) A Master’s Degree allows an individual to develop and enhance the knowledge, skills and abilities obtained at the bachelor level. The degree is conferred on individuals who:
a. Demonstrate that they have obtained knowledge, understanding, skills and capabilities in a field of study that is superior to that which has been obtained in a bachelor’s program;  

b. Show that they have acquired a higher level of study skills that will allow them to continually progress on their own with greater autonomy; and  
c. Exhibit greater ability in their chosen field of research and development.

(11) A Doctoral Degree aims to build on the knowledge, skills and abilities that an individual has obtained at Master’s level. It is normally awarded to individuals who, in their thesis or dissertation,  
a. Demonstrate in-depth understanding of a field or discipline;  
b. Exhibit mastery of knowledge and skills in their field of study;  
c. Show that they have expertise in research and are able to conduct research independently;  
d. Make an original and significant contribution in their field of study;  
e. Use academic or scholarly discourse capabilities to communicate their research findings to peers/people in their field;  
f. Demonstrate the use of critical analysis, evaluation and synthesis skills.

DEFINITION OF POSTGRADUATE STUDY

(12) The defining characteristic of a research-based program of studies is that it must include the creation of a significant piece of research by the student during candidacy which leads to the award of a Higher Degree by the institution.

(13) Research is defined by academic institutions as an original investigation undertaken in order to gain knowledge and understanding and, while gaining knowledge might be narrowly seen as amassing facts, understanding necessarily involves explanation: finding out why the phenomenon is as it is.

(14) The research student is even more challenged by the change in status and is required to become much more self-sufficient and self-motivated.

ASSISTING THE TRANSITION PROCESS

(15) Students moving from undergraduate to postgraduate studies or within postgraduate studies to a research degree programme are faced not only by the need to acquire or enhance appropriate knowledge and skills but also to modify attitudes to the new situation(s) they face.
Responding positively and successfully to these challenges requires a high level of sustained motivation which cannot be achieved unless the students’ needs are satisfied or, at the very least, reduced to the point where they no longer constitute a de-motivating factor.

Those who teach and/or supervise postgraduate students must, therefore, be aware of situations – including their own expectations with the student – which can constitute a threat and set about attempting to remedy or neutralise them (see Appendix A on this).

Demotivating factors can occur at all of the five levels discussed below and, equally, remedial action can be taken to reduce or even cancel these effects.

**MOTIVATION**

Motivation is a drive that compels an individual to act in a way which is directed towards some goal.

It may be *intrinsic*, deriving from personal interests, desires, and internal needs. It can be seen in the engagement of an individual in an activity for its own sake rather than for any obvious external incentive, e.g. a hobby.

It may be *extrinsic*, deriving from external factors such as rewards or punishments. It can be seen when an individual engages in an activity because of obvious external incentives e.g. working for money rather than enjoyment and personal fulfilment. Motivation plays a crucial role in student learning.

In education, it is accepted that high intrinsic motivation is associated with high achievement and enjoyment but also that extrinsic motivation – feeling the need to score good marks or gain a higher degree classification - also has a positive effect.

**NEEDS**

A general model of motivation suggests that human beings share a common set of needs whose satisfaction provides the conditions for positive motivation and that the individual advances to the next level of needs only after the lower level need has been at least minimally satisfied.
The needs can be subdivided into two types: a) primitive, basic "lacks" (physical and social) the satisfaction of which can facilitate motivation but are not, in themselves, a guarantee of it, and b) more sophisticated "growth" needs (aesthetic and developmental) which, even in the face of continuing lacks, do so.

The first set consists of four needs are: i) physiological, ii) safety, iii) social, and iv) esteem.

i. Physiological needs relate to the needs of the living organism for food, water, sleep, shelter etc. which ensure its continued existence. If these basic needs are not fulfilled, thoughts and behaviours can be disturbed.

ii. Safety needs include both a) protection against physical or psychological attack and b) the security which comes from predictability, order, the frequent occurrence of the familiar and the rare occurrence of the unfamiliar.

iii. Social needs relate to the desire to be accepted and loved: to have a sense of "belonging". This involves the retention and strengthening of the primary relationships of family, kinship and friendship and the building and preservation of supportive or at least non-threatening secondary relationships: work etc.

iv. Esteem refers to self-respect. It also includes the desired to be respected and also to respect others. To gain recognition, individuals engage in activities that give them a sense of value and of contribution. Low self-esteem can be very corrosive of the individual personality and lead to deep demotivation.

v. The second set consists of a single, final need which is concerned with "being" and developing rather than merely existing. Striving to realize one’s own maximum potential and possibilities is the master motive which can override even unsatisfied deficiency needs. What counts is not the context of the work but its content. When the work itself is seen as providing great satisfaction – extending the potential of the individual – people will accept appalling conditions to do the job. Examples can be readily seen in the commitment of paramedics at the scene of an accident or the hours of painful physical exercise the dedicated dancer is willing to endure in order to create a perfect performance.
Physiological

(26) Student motivation is likely to be reduced by such physical matters as personal ill health, inadequate space for teaching and learning, rooms which are dirty, poorly maintained, and inadequately lit, at wrong level of temperature and humidity etc.

Safety

(27) While the danger of physical attack is likely to be small in a university, that of disorganisation and uncertainty is not. Some examples include:

- Poorly planned and structured input delivered in a way which is not conducive to learning is likely to reduce motivation (see Appendix A on the relationship of teacher and learner styles);

- The study load is heavier in university than in secondary school and the opportunities for non-academic activities are far greater. This implies that students must be focused, disciplined and develop good time management techniques if they are to make the most out of their time at university. A clear jointly agreed timetable with realistic milestones built into it is therefore a necessity.

- The student also needs to understand the internal and external forces which constitute potential obstacles to the work and ask:

  1. What are my strengths and how can I use each of them?
  2. What are my potential weaknesses which can be reduced or removed?
  3. What opportunities can I perceive and how can I exploit them?
  4. What threats do I face and how can I defend against or neutralise them?

(28) The pattern of SWOTs the student discovers can form part of the basis for facilitating the research by acting as inputs to the creative generation of possible learning strategies.

(29) The attitude of the supervisor to the student can also constitute a powerful positive or negative motivational force. The accepting and non-judgemental supervisor who praises appropriate work rather than criticise the inappropriate goes far to providing a level of security which facilitates learning.
Social

(30) The student needs to feel that (s)he is a member of the academic community rather than an outsider. This assumes the fostering of positive relationships between supervisors and students and between students and students: nurturing friendships, creating appropriate degrees of closeness etc.

• The supervisor can do much by adopting open styles of teaching and interaction which entail the abandonment of teacher dominated “top-down” processes and their replacement by a “bottom-up:top-down” iterative style which, rather than assuming a “solution”, seeks to arrive at a “provisional truth” shared by (most of) the participants about the problem and possible solutions to it.

• Relationships between students which are probably most conducive to motivation are those which are founded on mutual trust and co-operation rather than suspicion and competition: peer supervisory and joint research activities provide opportunities for this.

Esteem

(31) A situation in which an individual possesses self-esteem, receives respect from others, and, reciprocally, shows respect to them, provides students with opportunities for confidence building and pride in their achievements and is likely to be highly motivating.

• Indicators of such a situation will include:

• Self-esteem: individuals developing new knowledge on the basis of their existing background and specific knowledge and being able to share this with others in a competent way.

• Respect for and from others: a learning environment in which students are positive and non-judgmental and empathetic.

Self-actualization

(32) The four basic needs are all concerned with “existing” rather than “being” and, even if they are satisfied and the context in which a person is working is threat-and need-free, an individual may still lack motivation because the content of the work is not in itself satisfying.
Individuals need to feel that they are growing, developing towards realising their own maximum potential and becoming truly themselves. It must be the case for the vast majority of the academic community – staff and students alike – that each individual sees such self-actualisation as the fundamental purpose of the activity and one which can be so powerful as to neutralise unsatisfied needs at lower levels.

Motivation in such a context is likely to be intrinsic rather than extrinsic: rewards in the form of promotions, titles, and fame are, as it were, byproducts rather than the goal.

In knowledge-sharing communities and organizations, such as universities, the need to contribute to a common good is essential.

**TEACHING AND LEARNING STYLES**

The major parameters in learning are: a) the content *(what has to be learned)*, b) the context *(where and when the learning is to take place)* and c) the participants *(who are involved)*.

Of the three, the participants are the crucial variable in terms of the success of the process. Each has particular long-term and short-term motives and needs *(the why of the equation)* and, just as the teacher has particular preferred strategies for teaching, so has the learner for learning; both answers to the question of how? Congruence between the teacher’s and the learner’s strategies is an important, perhaps a criteria, requirement for the successful outcome of an educational program.

**LEARNING: CONTENT, MODE AND STYLE**

Learning can be divided into what is learned and how it is learned - content and mode – and, within the alternative ways of learning, preferred learning styles.

**Learning: Content**

Learning the content consists of the acquisition of knowledge, *facts and skills*; factual and procedural knowledge; knowing that and knowing how.

But knowledge is not neutral: it brings with it explicit (and implicit) attitudes and values which also form part of the acquisition process and this attitudinal knowledge affects not only the way in which the facts and skills are acquired