

# Improving the Development of Postgraduates' Research and Supervision

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## Abstract

Research and supervision have become a vital process in the successful of postgraduate studies. Building an academic career path after Higher National Degree or Bachelor Degree needs intensive training and preparation. This culminates in writing of thesis or dissertation. In this process, the supervisor is designated to facilitate the student's research development based on good resources offered by the institution. At this stage, one of the most common complaints from research students concerns infrequent or erratic contact with supervisors, who may be too busy with administrative or teaching responsibilities, have too many students or be away from the university too often. The main objective of this paper is to expose what are postgraduate students' problems in research and supervision. The paper's thrust will be to highlight the importance of supervisory contribution to graduate study and to propose the best practice of supervisory inputs. Developing skills towards an effective supervision needs to be tackled in various ways. Effective supervision is essential to guide postgraduate students during their progress in postgraduate study.

**Keywords:** Research, Supervision, Postgraduate, Supervisor, Supervisory input, Thesis

## 1. Introduction

Driven by the force to enhance the image of institutions, universities are trying to produce more quality students with outstanding research project. In response to this move, they are striving to improve the development of postgraduates' research and supervision. In the minds of research students, they are hoping for a good environment. This includes apt research support services and an effective supervision system. Students undertaking graduate study at universities are under increasing pressure to complete their candidature within a particular timeframe. Research students represent a significant range of diversity: (1) age; (2) cultures; (3) experience and ability; (4) part-time, full-time, internal or external; (5) their needs change over time / place / space; and (6) sometimes with, but mostly without scholarships or other funding support. There are pressures on research students to: (1) complete within candidature time – (reduced learning entitlement); (2) publish / present conference papers; (3) support families / jobs; and (4) develop a broader range of skills that will enhance their marketability. These exclude creating new knowledge, producing ground-breaking work, keeping up with the literature, and writing a thesis et cetera. Being as graduate students, they have a lot of challenges to overcome such as family commitment, work commitment and finances, which may affect their achievements. These challenges are much greater if the students are doing part time which really consumes time, money, effort, patience and enthusiasm. They have to manage their time and effort for other commitment such as job and family. Most of them either funding their study by themselves or receive a

scholarship, so it is important for them to complete their study as soon as possible, and certainly within the time frame given.

Graduate students often experience problems which delay their studies or prevent them from finishing. According to Helm (1989) these problems are threefold, namely problems in the research design, the collecting and processing of information and the writing of the report. The problems could be due to inexperience of the student, to poor supervision or an inefficient system (Mouton, 2001). Rademeyer (1994), Hockey (1994) and Smith and West-Burnham (1993) found that the successful completion of a dissertation was just as much a function of the abilities of the student as of the supervisor. Numerous research findings as discussed below have pointed out that there are high proportions of graduate students who fail to complete their studies within the time given. Many factors contribute to this and the major problem is related to the research and supervision process.

The concern about higher degree attrition and completion rate has attracted many scholars to explore especially in overseas for example in Canada, UK and USA. In some cases reported studies have focused on attrition statistics, with some American attrition estimates for doctoral studies being far higher than 50% (D'Andrea, 2002). However, some university estimates have suggested that attrition over the first several years of candidature is less than 40%. Other studies have suggested that more than one third leave in the first year (Lovitts and Nelson, 2000). At the high end of the scale, some estimates based on cohort studies have been that doctoral candidate attrition overall may be as high as 85% in the USA (D'Andrea, 2002). At the lower end, Colebatch (2002) suggested that completion rates for research degrees in Australia have increased considerably since the 1980s to between 80% and 90% in the mid 1990s. A recent study in Canada indicated that discipline area was important for completion, with completion rates varying from 45% in arts and humanities to 70% in life sciences, with science completions being generally in the high 60% range (Elgar, 2003). For the UK, completion rates after 10 years differed by general discipline area with arts/humanities rates being 51%, and sciences cited at 64% (Wright and Cochrane, 2000).

In recent years, research supervision has become very critical for graduate students to achieve higher degree certification. It is out of the realization that supervision is now a central process for the successful completion of graduate programs. Supervision also can be interpreted as a two-way interactional process that requires both the student and the supervisor to consciously engage each other within the spirit of professionalism, respect, collegiality and open-mindedness. Supervision is a complex social encounter which involves two parties with both converging and diverging interests. Therefore, balancing these interests is very crucial to the successful supervision of graduate research projects. Other than that, the role of departments are so valuable in this matter. Departments are important sites of learning and change that exist within larger organizations: faculties/schools within universities. Institutions incorporate degrees of diversity just as do student populations and departments. Interestingly, many universities estimate shorter times to and higher levels of completion than other universities (Elgar, 2003) but did not take action into this.

Seagram et al. (1998) indicate that a good supervisor-student relationship is the key factor in the success or failure of students' studies or research work. As an effective supervisor, there are certain important practices that should be trained in supervisory system in order to complement research and supervision needs. Lack of information and guideline in the supervisory system brought this issue out. For students with thesis program, there is a crucial need for an effective supervisory system. Students experienced lots of difficulties during their research process. Some of them are not familiar with the research topic and lack of knowledge about research methodology. On the other hand, supervision is one of the main elements that should be taken into account when discussing about graduate students. A student is frequently his/her supervisor's closest colleague (McAlpine and Weis, 2000). Thus, student experience of the graduate can be strongly influenced by the nature and extent of negotiation with the supervisor, as well as by characteristics such as gender and ethnicity (Acker et al., 1994; Ellis, 2001). Observation from this subject must be seriously catered in order to guide graduate students to complete their studies. Many researchers have operationalized supervision in so many ways. But the nature of the exact function is still shrouded with uncertainty.

Graduate School faculty can offer courses, workshops or tutorials to assist graduate students who wish to enhance their communication and writing skills. In this case, Goldhammer et al. (1980) additionally suggest curricular and instructional components as part of the supervisor's job. Salmon et al. (1994) pick up the theme of changing research stages and the need for a supervisor to be flexible in an attempt to meet the needs of individual students. Supervisors who have this flexibility can be more helpful to their research students (Haksever and Manisali, 2000). On the other hand, Ekstein and Wallenstein (1972) also identify different styles of approach within the supervisor's role, including: openness to feelings, anxieties and experiences and reward, which give encouragement and recognition. Haksever and Manisali (2000) define the supervisory requirements of the student as follows: (1) personal help: support, motivation, socializing, help in organizing accommodation and other things that may be required, but are unrelated to the research; (2) indirect research related help; providing contacts, both industrial and

academic, providing equipment and initial help in locating references; and (3) direct research-related help: critical analysis of work, help with methodological problems, precise direction and help with the management of the project. Students sometimes experience personal difficulties. These can include family difficulties, problems in personal relationship, cultural adjustments, financial pressures and problems associated with employment. The importance of these various problems should not be under-emphasized.

## 2. General Overview of Postgraduate Research Studies

Graduate education programs worldwide, as at this university, attract professionally-based, nonresidential students studying part-time. Many graduate students are mature and/or distance learners with needs different to those of residential and undergraduate students (Humphrey and McCarthey, 1999). Part-time students struggle to cope with their simultaneous academic and professional workloads and experienced a lack of support and understanding from their supervisors, inflexible program organization and structures, and a feeling of isolation (Lessing and Lessing, 2004; Mackinnon, 2004). Graduate students report anxiety as a result of uncertainty about what is expected of them and procedures such as assessment (Lovitts, 2005; Malfroy, 2005).

Students from previously disadvantaged backgrounds may have further distinctive needs in order for them to cope with the pressures of a technologically advanced environment and a system that demands independent research (Lessing and Schulze, 2002). Students are central to the graduate undertaking. Yet, theirs is the voice that is least heard (Golde, 2000). Today's students come to graduate programs with increasingly varied backgrounds, preparation, expectations, motivations, and responsibilities (e.g., child-care, work). In the US, they tend to be older than in the past, mostly in a relationship, parents, employed in areas unrelated to their discipline, and domiciled far enough away from campus that it is not easy to be present (Elgar, 2003). Many of these students want to enrich what is to them a new community with their knowledge and experience. However, despite such diversity, studies consistently demonstrate a set of variables originating in different contexts that influence graduate retention and completion for all students. This uniformity results from common features that students experience as they begin to acculturate in their chosen community of practice. We assume this is the case at the graduate level where for many the goal is to enter into the academic community with the supervisory/committee relationship (Johnson and Broda, 1996) perceived as an important factor in this process.

Graduate research has an intellectual as well as a psychological component (Phillips & Pugh, 2000). Tenacity, support by the supervisor, personal and collegial support and previous experience contribute to psychological survival (Smith and West-Burnham, 1993). Students also need determination and perseverance to complete their research (Phillips and Pugh, 2000; Smith and West-Burnham, 1993). In addition, they need adequate supervision and clear communication with supervisors. They should also be familiar with evaluation criteria (Shannon, 1995). Zuber-Skerritt et al. (1994) summarized the main problems in graduate supervision as: (1) inadequate supervision: supervisors' lack of experience, commitment, and/or time; (2) emotional and psychological problems: students' intellectual and social isolation; their insecurity to fulfill the standards and lack of confidence in their ability to complete their theses within the specified time or not at all; (3) lack of understanding and communication between supervisor and student; and (4) students' lack of knowledge, skills, training or experience in research methods. Another problem is that the role of supervision and the motive for supervision also seems to be unclear. In the first instance the role of supervision is being described as the most advanced level of teaching (Connell, 1985), critical conversation (Knowles, 1999) and mentorship (Taylor, 1995), and in the second case supervisor motives may incorporate knowledge attainment, joint publications and recognition (self-esteem) each motive carrying different expectations of students (Hockey, 1996). Spear (2000) concludes that one of the most common complaints from research students concerns infrequent or erratic contact with supervisors, who may be too busy with administrative or teaching responsibilities, have too many students or be away from the university too often. Therefore, the supervisor should make equal information, time and energy available to all students (Brown and Krager, 1985) and should also meet regularly with students (Hockey, 1996; Russell, 1996). Research has shown that constant, thoughtful supervision and availability is the key to successful graduate program completion (Donald et al., 1995; Holdaway, 1991).

Postgraduate students' needs can be investigated from various perspectives. Various studies have approached the question on how to deal with graduate students from a supervisor perspective (Malfroy, 2005; Manathunga, 2005; McCormack and Pamphilon, 2004). Another approach to this area of concern would be to question the current graduate students themselves, as proposed by Lessing and Schulze (2002), Lin and Cranton (2005) and McAlpine and Norton (2006). McAlpine and Norton (2006) found that a student voice is seldom heard in research on graduate studies. Lin and Cranton (2005) describe the process of graduate study as growing from a scholarship student to becoming a responsible scholar, which Lovitts (2005) refers to as a critical transition. The graduate growth process is not always a fluent and untroubled transition. The growth that takes place by working through what Malfroy

(1998) refers to as a necessary creative tension and the development of independence, critical thinking (Lin and Cranton, 2005) and creativity (Lovitts, 2005), are essential elements of graduate development. Lin and Cranton (2005) add that students need to be supported in their growth to establish an individual scholarly identity. Lovitts (2005) found that graduate students are often ill-prepared to deal with the challenges graduate studies pose to them.

Lessing and Schulze (2002) distinguishes between the support needs of Master's and doctoral students, where the Master's student needs to methodologically master the research process and the doctoral candidate is expected to produce more original work and may therefore need more input in developing depth, synthesis and critical ability. All graduate students need to acquire technical competence, analyze data, manage their time and personal responsibilities, and build up a network of peers and expert colleagues. Lessing and Schulze (2002) emphasize students' needs in terms of finding literature, data analysis and interpretation, and interactive learning opportunities. Training in research methods, seminars, response time for students, and supervisory input are deemed important factors in enhancing students' success. Mackinnon (2004) summarizes the influences on the graduate experience as personal, professional and organizational factors. Graduate studies therefore have both an intellectual and a psychological component that need to be acknowledged. Mackinnon (2004) and McAlpine and Norton (2006) therefore argue that graduate students' needs need to be addressed at institutional, departmental and individual levels. Lovitts (2005) include elements in the macro- and microenvironments, as well as individual resources as influences in graduate completion and creative performance. Spear (2000) concludes that one of the most common complaints from research students concerns infrequent or erratic contact with supervisors, who may be too busy with administrative or teaching responsibilities, have too many students or be away from the university too often.

### **3. Postgraduate Research Needs**

Research is an interactive process and requires the development of social as well as academic skills (Phillips and Pugh, 2000). A school's administrative function is commonly interpreted as referring to managing, operating or directing an organization (Burton and Bruekner, 1995) in order to support students towards the completion of Ph.D. Some suggestions regarding the supervisory framework for supporting and defining the students' graduate programme include producing a definite plan in writing, probably different for each department, that describes the department's view on good supervisory practice; establishing regular meetings between student and supervisor, setting up adequate methods of assessing coursework, thesis or dissertation supervision record keeping and project advancement (Brown and Atkins, 1988; Council of Graduate Schools, 1990) and submitting a comprehensive annual progress report to the supervisor (Donald et al., 1995). Given the length and complexity of graduate student supervision, it is understandable that various difficulties arise (Brown and Atkins, 1988; Moses, 1992) due to organisational or professional factors. Organisational factors could include policies and procedures established or not established for graduate student supervision (Donald et al., 1995), the manner in which these are communicated to supervisors and students, the number of student being supervised, the supervisor's inability to manage a research group effectively, and inadequate support services and equipment. Among the professional factors are; misinformed or inadequately prepared supervisor or a supervisor whose research interests are different from those of the student. Humphrey and McCarthey (1999) explained that many graduate students are mature and/or distance learners with needs different to those of residential and undergraduate students.

Salmon (1992) suggests that students need substantial help in achieving an appropriate orientation for the final oral examination. In order to handle such situation, interpersonal inputs from supervisors become imperative. Salmon et al. (1994) pick up the theme of changing research stages and the need for a supervisor to be flexible in an attempt to meet the needs of individual students. Supervisors who have this flexibility can be more helpful to their research students (Haksever and Manisali, 2000). Supervisors believed that they were contributing by organizing help with skills, developing English, writing, by collecting relevant literature and through networking or putting students in contact with others in the area (Brown and Adkins, 1988). However, support from the institution and supervisor still needed as reported by Malfroy (2005) that graduate students often experience frustration as a result of a perceived lack of support or what is referred to as "a disjunction in expectations" between the student and the supervisor. Spear (2000) states that supervisors should read the student's written work thoroughly and provide constructive criticism, since this is an essential element in the student's intellectual development. It is supported by Lessing and Schulze (2002) who describe the supervisory role as a balancing act between various factors: expertise in the area of research, support for the student, critique, and creativity. Also, advice on the desirable amount of reading, experimentation and analysis will normally be expected (Holdaway et al., 1995). According to Spear (2000), feedback is normally given in relation to topic selection, methods of inquiry, writing style and layout, the clarity of the student's work and ideas, the completeness and direction of the work, and the student's general progress.

### **4. Research Student Supervision**

According to Hodza (2007), supervisor must be willing to make adjustments in the relationship process to meet the supervisee's learning needs. This includes the consultation and appointment with the students. Holloway (1995)

referred to this as the artistry of supervision. Therefore, faculty and even the university must assist these students by providing enough information for a potential supervisor and supervisors should make themselves accessible for the students. The supervisor should make equal information, time and energy available to all students (Brown and Krager, 1985). According to them, the supervisor needs to be sensitive to students' time and competence limitations and to assist them to become aware of their own limitations and any constraints on them. Russell (1996) and Moses (1992) found that both supervisors and students agreed that one role of the supervisor to assist students in general. The amount of assistance that supervisors give to graduate students varies, depending upon the stage that the latter have reached (Moses, 1992). Thus, supervisors should help the students more in research input.

According to Russell (1996), the examination of supervision has the potential to make an important contribution to the quality of graduate research. Therefore, supervision is concerned with the mechanics of ensuring that the student makes good progress towards completion (Hockey, 1996). On the other hand, the supervision literature indicates that ethical, technical and methodological problems can be minimized or prevented if all the participants in the relationship strive to enter it with clear expectations for their respective roles and about the rules for their interactions (Goodyear et al., 1992). Therefore, both on a departmental and individual basis, the supervisor must be diligent about explicitly working with students to establish mutual expectations, responsibilities and benefits for working together and with other interested parties (Phillips and Pugh, 2000). Hockey (1996) discusses the patterns and process of supervision and especially the roles of graduate students in producing effective supervision. In view of this research, effective supervision of research students is acknowledged to be a crucial factor in the latter's successful completion of the Ph.D (Frischer and Larsson, 2000). How well they are supervised is likely to be linked to the way they choose to occupy their role. This kind of experience is very interesting and meaningful to appropriate persons like students, supervisors and schools in order that they may examine what they should do and how they should go about playing their roles optimally. Kiley and Austin (2000) studied the mobility of graduate students in Australia. One of the reasons that led to making a choice of university was related to supervision.

Moses (1992) argues that at each stage of the research progress, students are likely to need different forms of guidance. They need particular guidance on when to stop data collection and analysis, when to start drafting the thesis and how to structure it (Moses 1992). Thus, the supervisors are expected and assumed to be guides (Cryer, 2000) and critical friends (Hockey, 1996; Sheehan, 1994). On the other hand, they should also be able to adopt flexible supervision strategies depending on the individual requirements, which are influenced by the attributes of the particular student (Hockey, 1996; Hill et al., 1994; McQueeney, 1996). This is due to the fact that Ph.D students are not homogenous, but highly diverse in terms of academic ability, personality attributes, motivation and attitude. Hence, how supervisors respond to students will, in part, be conditioned by these different factors and applying the same rigid strategy for each student may not always work effectively (McQueeney, 1996). Burgess et al. (1994) also pick up the theme of changing research stages and the need for a supervisor to be flexible in an attempt to meet the needs of individual students. Supervisors who have this flexibility can be more helpful to their research students (Haksever and Manisali, 2000). Norhasni and West (2007) explained that research student supervision as a blend of academic expertise and the skilful management of personal and professional relations. Accessibility of the supervisor should be improved so that the students can seek advice from them. Students need guideline from the institution to select a potential supervisor.

## **5. The Responsibilities of Supervisor**

Various studies have reported on the importance of interpersonal relationships between graduate students and their supervisors as a determinant of student success (Lessing & Schulze, 2002; Ives & Rowley, 2005; Lin & Cranton, 2005). The supervisor often becomes the face of the faculty for graduate students, which Lee and Green (1998) refer to as an essentially privatized and personalized relationship, which is traditionally conducted behind closed doors (McWilliam and Palmer, 1998). Malfroy (2005) reports that graduate students often experience frustration as a result of a perceived lack of support or what is referred to as a disjunction in expectations between the student and the supervisor. Lessing and Schulze (2002) describe the supervisory role as a balancing act between various factors: expertise in the area of research, support for the student, critique, and creativity. Ives and Rowley (2005) emphasize the importance of matching supervisors to graduate students in terms of both topic expertise and working relationships. These authors also note the changing needs of graduate students, which may necessitate a change in supervisory practices as students' progress through a graduate program.

Malfroy (2005) adds that an open approach to supervision and a collaborative approach to learning may achieve more in terms of developing a community of scholars than more traditional approaches to supervision. Lessing and Schulze (2002) furthermore recommend that supervisors receive training in order to meet their graduate students' needs effectively. Lessing and Schulze (2002) determined that a varied pattern of supervisory involvement in the research process produces the best results. This pattern involves a significant initial investment in time and effort in

formulating the research question, followed by less interaction and more monitoring during the implementation phase, and finally increased input during the eventual writing of the research report. These findings indicate that a differentiated approach to providing information and support to graduate students may be necessary. Lessing and Lessing (2004) add that there needs to be a balance between supervisor input and student independence. Lessing and Schulze (2002) describe the supervisory role as a balancing act between various factors: expertise in the area of research, support for the student, critique, and creativity. Supervisors should be expert in their field.

The roles and responsibilities of the supervisor and supervisee should be clear to all participants in supervision (Kohner, 1994). Besides, supervisors and supervisee should be aware of the ethical codes for supervision (Butterworth et al., 1992). As Carroll (1996) mentions, good supervisors are able to adopt a multiplicity of roles in relation to the supervisee. Carroll (1996) emphasizes the meaning of the task and role of the supervisor and states that tasks are the behavioral side of functions and roles. The role is person-centered (teacher/pupil), the task is action-centered (to teach/to learn), and the function is a combination of both roles and tasks. Van (2000) argues that, even though a strong notional distinction is made between roles and tasks, in reality they combine. Traditionally, part of the supervisor's job was to ensure that work was done well and to standard (Rogers, 1957). Hawkins and Shohet (1989) and Proctor (1988) argue that a supervisor can be seen as having three tasks. The administration or normative task examines the management part of practitioners' roles and is concerned with on-going monitoring and quality (Berger and Bushholz, 1993; Carroll, 1996; Goldhammer et al., 1980). The education or formative task involves the process of skill development and the ability to reflect on experiences. Lastly, the support or restorative task involves the supportive and helping function. Goldhammer et al. (1980) additionally suggest curricular and instructional components as part of the supervisor's job.

Carroll (1996) states that the generic tasks of counseling supervision should include consulting, evaluating (Pierce, 2004; Van, 2000) and monitoring professional or ethical issues and highlights the fact that emotional awareness and self-evaluation are also among the tasks that are necessary for all counselors as they work with clients. Holloway (1995) agrees with Carroll (1996), but suggests other tasks such as instructing, advising and sharing while Van (2000) refers to modeling. However, Holloway (1995) mentions that a supervisor should understand the client's psychosocial history and present problems. A supervisor should also learn the tasks of record-keeping (Kohner, 1994; Neufeldt, 2004), procedures and appropriate inter-professional relationships and participate fully in the supervisory relationship (Carroll, 1996). Wilkin et al. (1997) identify the following skills as required by the supervisor: (1) communication skills (Butterworth et al., 1992; Holloway, 1995), which involve being attentive and actively listening (Rogers, 1957) and being able to comment openly, objectively and constructively; (2) supportive skills which involve being able to identify when support is needed and offer supportive responses (Fowler, 1999; Holloway, 1995; Rogers, 1957); (3) general skills; and (4) specialist skills which means that those who specialize in particular fields of work should have access to supervision by someone who is similarly orientated. Effective supervisors are also characterized by respect (Berger and Bushholz, 1993), empathy (Berger and Bushholz, 1993), genuineness (Page and Wosket, 1994), honesty (Carroll, 1996), non-sexist and non-authoritarian attitudes (Butterworth et al., 1992). An effective supervisor should also pay attention to client welfare (Page and Wosket, 1994). Carroll (1996) identifies a good supervisor as being a good teacher, who has access to a range of teaching and learning methods and can adapt to individual supervisees.

There are many opinions regarding the responsibilities of supervisors. Most of all, the supervisor should give constant support and reassurance to the student (Haksever and Manisali, 2000; Phillips and Pugh, 2000; Sheehan, 1993) and keep the student's morale high (Phillips and Pugh, 2000). According to Brown and Krager (1985), the supervisor also needs to be sensitive to students' time and competence limitations, and to assist them to become aware of their own limitations and any constraints on them. Many tasks of supervisors are related broadly to advice (Donald et al., 1995). Advice is given on direction, completeness, clarity, methodology, topic selection (Spear, 2000) and feedback is given on progress of written work (Donald et al., 1995; Russell, 1996). According to Spear (2000), feedback is normally given in relation to topic selection, methods of inquiry, writing style and layout, the clarity of the student's work and ideas, the completeness and direction of the work, and the student's general progress. Also, advice on the desirable amount of reading, experimentation and analysis will normally be expected (Holdaway et al., 1995). Spear (2000) states that supervisors should read the student's written work thoroughly and provide constructive criticism, since this is an essential element in the student's intellectual development. However a major student complaint is that supervisors have been unduly slow in reading thesis drafts and other written material. Haksever and Manisali (2000) define the supervisory requirements of the student as follows: (1) personal help: support, motivation, socializing, help in organizing accommodation and other things that may be required, but are unrelated to the research; (2) indirect research related help: providing contacts, both industrial and academic, providing equipment and initial help in locating references; and (3) direct research-related help: critical analysis of

work, help with methodological problems, precise direction and help with the management of the project. The results also show that the most personal help was required by the overseas students (Haksever and Manisali, 2000).

Traditionally, part of the supervisor's job was to ensure that work was done well and to standard (Fowler 1996). Hawkins and Shohet (1989) and Proctor (1988) argue that a supervisor can be seen as having three tasks. The administration or normative task examines the management part of practitioners' roles and is concerned with on-going monitoring and quality (Berger and Bushholz 1993; Carroll 1996). The education or formative task involves the process of skill development and the ability to reflect on experiences. Lastly, the support or restorative task involves the supportive and helping function. Goldhammer *et al.* (1980) additionally suggest curricular and instructional components.

## 6. Effective Research and Supervision

Effective supervision requires supervisors to be knowledgeable and skilled in the research field (McQueeney, 1996). Brown and Atkins (1988) suggest that, to supervise effectively, one has to be a competent researcher and to be able to reflect on research practices and analyse the knowledge, techniques and methods that make them effective. Frischer and Larsson (2000) and Phillips and Pugh (2000) take a slightly different view, in that they suggest that students are recommended to select a supervisor based on the key factor of whether the latter has an established research record and is continuing to contribute to the development of his or her discipline. This includes whether the person has recently published research, holds research grants and is invited to speak at conferences in their own country or abroad. Therefore, an effective supervisor should satisfy such criteria. Spear (2000) supports this statement and adds that often it will be sufficient for the supervisor to be competent in the general area of the student's research even if not expert in the detailed area of the thesis topic.

The relationship between the student and supervisor involves selecting a research topic, planning the research, identifying and acquiring the necessary resources, managing the project, actively conducting the research, carrying out the literature review, analysis and interpretation of the data, writing the thesis, defending it and possibly publication (Piccinin, 2000). Consequently, the supervisory process requires constant adjustment, great sensitivity and interpersonal skill on the part of both the supervisor and student (Hockey, 1995, 1996; Piccinin, 2000). Good communication between students and their supervisor is the most important element of supervision (Barger and Mayo-Chamberlain, 1983; Donald *et al.*, 1995; Haksever and Manisali, 2000; Hockey, 1996; McQueeney, 1996; Phillips and Pugh, 2000; Spear, 2000; Waitie, 1994). Without open and honest communication it is very difficult to identify the nature of and reasons for the shortfalls perceived by the student. Both parties should be open to criticism, willing to listen to each other and to talk openly (Haksever and Manisali, 2000) and trustworthy (Armitage and Rees, 1988; Hockey, 1996; Salmon, 1992). According to Donald *et al.* (1995), personality factors might involve personality clashes, barriers to communication due to age, cultural, or language differences, or personal differences in the approach to work. Therefore, students bear their own degree of responsibility in dealing with these clashes.

Meanwhile, some graduate units generally assign a supervisor to a student upon admission to the program. In most graduate units, the responsibility for finding a supervisor rests with the students. The choice of a faculty member who will supervise the thesis work required to fulfill degree requirements is one of the most critical decisions a graduate student will make. A student will spend several years working with the faculty member of choice, and that choice will significantly affect the direction of the student's career. Choosing a supervisor, therefore, is not a decision to be taken lightly. A student undertaking thesis work needs a supervisor who will be not only academically competent in a particular area but also willing to act as the student's advocate when necessary (School of Graduate Studies, 2002). It is important that the student be able to work and communicate effectively with the supervisor and not feel overwhelmed or intimidated in the relationship. Hence, information for potential supervisor should be provided and accessible to graduate students. The faculty and department play a major role in this process.

Students sometimes experience personal difficulties. These can include family difficulties, problems in personal relationship, cultural adjustments, financial pressures and problems associated with employment. The importance of these various problems should not be under-emphasized. Salmon (1992) suggests that students need substantial help in achieving an appropriate orientation for the final oral examination. Thus, a seminar approach (as advocated by Lessing and Schulze, 2002; and Malfroy, 2005) is useful in this regard. A seminar approach emphasizes research as a process, rather than a product (Malfroy, 2005). The seminar approach has multiple purposes, including encouraging students to talk about their work and progress. Student presentations at seminars can serve as progress reports, which enhance throughput rates. A seminar also creates opportunities for networking with other students and staff, which helps to counteract feelings of isolation. This approach will enhance collaboration, sharing and constructive input and scholarly debate amongst students and staff and open the window for collegial collaboration

and participatory learning. The approach also recognizes that one supervisor cannot be everything to every student. Seminars can help students to hone their skills as researchers, presenters and scholars within a specific discipline.

School of Graduate Studies (2002) recommended that supervisors should try to ensure that their relationships with students are such that students will be comfortable telling supervisors that they are having significant personal difficulties. In order to handle such situation, interpersonal inputs from supervisors become imperative. Salmon (1992) pick up the theme of changing research stages and the need for a supervisor to be flexible in an attempt to meet the needs of individual students. Supervisors who have this flexibility can be more helpful to their research students (Haksever and Manisali, 2000). Supervisors believed that they were contributing by organizing help with skills, developing dissertation in English, thesis writing, collecting relevant literature and through networking or putting students in contact with others in the area (Brown and Adkins, 1988). It is also necessary for the institution to take into consideration the different needs and priorities stated by different groups of students. It is also essential for supervisors to develop their roles and relationships with the students to ensure that the students can perform well in the task assigned.

Hawkins and Shohet (1989) mention that supervision can be an important part of taking care of oneself and facilitating reflection. Berger and Bushholz (1993), Carroll (1996), Cogan (1973), Department of Health (1993), Fowler (1999), Kohner (1994) and Rodenhauer *et al.* (1989) point out that it is important in staying open and committed to learning. However, Ekstein and Wallenstein (1972) and Rogers (1957) suggest that it is important in maintaining self-awareness. Therefore, supervisors have to be teachers and innovators (Goldhammer *et al.* 1980; Sergiovanni and Starratt 1973; Van Ooijen 2000).

On the other hand, Ekstein and Wallenstein (1972) also identify different styles of approach within the supervisor's role, including: openness to feelings, anxieties and experiences and reward, which give encouragement and recognition. With experience, the supervisor's role should develop and they should become more skilled at helping and supporting other practitioners (Berger and Bushholz 1993; Butterworth and Faugier 1992; Page and Wosket 1994). Carroll (1996) states that the generic tasks of counselling supervision should include consulting, evaluating (Pierce 2004; Van Ooijen 2000) and monitoring professional or ethical issues and highlights the fact that emotional awareness and self-evaluation are also among the tasks that are necessary for all counsellors as they work with clients. Holloway (1995) agrees with Carroll (1996), but suggests other tasks such as instructing, advising and sharing. While, Van Ooijen (2000) refers to modelling. However, Holloway (1995) mentions that a supervisor should understand the client's psychosocial history and present problems. A supervisor should also learn the tasks of record-keeping (Kohner 1994; Neufeldt 2004), procedures and appropriate inter-professional relationships and participate fully in the supervisory relationship (Carroll 1996).

## 7. Conclusion

Through this review, comes several implications to those who are involved in graduate studies. It produces a major contribution as the guideline for effective research and supervisory system. Students' expectations are not entirely met regarding some aspects of supervision. Among others, students want guidance with regard to the overall planning of the research in terms of the approach to follow (theoretical, quantitative or qualitative) and planning the study in terms of time frames. Most students, especially at the Master's level, want supervisors to help them decide on due dates for chapters to be submitted. Students (particularly Master's students) also desire that supervisors refer them to other students or informed people in their research fields and to contact them frequently to alleviate feelings of isolation. However, doctoral students want the freedom of working relatively independently. During their research, the students do require criticism, but they want it to be constructive and they also want the feedback as quickly as possible. In this regard, overburdened supervisors may cause delays and their workloads could be reconsidered.

Both Master's and doctoral students want support with regard to research methodology as well as the interpretation and presentation of research results. However, many supervisors themselves may be inadequately trained or unwilling to be instructed in these areas, preferring to direct students to others who are more knowledgeable. In such circumstances interactive seminars for students and staff are crucial. The inability to obtain the required literature from libraries (that do not have sources or cannot find them), is an important hurdle that needs to be overcome. Finally, when their research has been completed and evaluated, students desire written feedback. This is an important aspect that faculties need to consider since it may be of particular importance to Master's students who wish to continue their studies, although there may be some resistance from supervisors. This paper has revealed the best practices of a supervisor.

Graduate students sometimes experienced some difficulty in their research thus, this concluded that the effective resource in research and supervision becomes very essential to graduate students. The learning that takes place

during graduate studies is a maturing process that must be enhanced with timely and appropriate support. Developing skills towards an effective supervision needs to be tackled in various ways. This review will act as an indicative of postgraduate students' needs during their progress through a postgraduate program. They need support in cope in balancing the demands of the different environment. They need enthusiasm, strength, support and commitment to keep on their study. Thus, supervisors' contributions that have been discussed in this paper are so important to these students. Good relationship between student and supervisor will ensure their research project is completed successfully. This paper also has revealed the best practices of a supervisor. Effective supervisor is essential to guide postgraduate study progress. Supervisory systems are important elements to graduate students especially research students. These elements play a major factor that influences the progress of graduate studies. By improving these resources, we can improve the study process and enhance the research progress.

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