



# Importance of Supervisory in Educational Progress of PhD Students

Iman Mohammad <sup>1</sup>

Department of Professional Development, Faculty of Educational Studies, Universiti Putra Malaysia

Received: 12 January 2017

Accepted: 02 April 2017

Published: 01 June 2017

## Abstract

Supervision is defined as intensive, interpersonally focused one-to-one relationship between the supervisor and the student. Supervisor is designated to facilitate the student's academic development either in terms of courseworks or research project. This paper address supervision as a complicated process that is influenced by many factors, including the social setting, the personalities of the supervisor and the student, the relationship that develops between them, the expertise of the supervisor, and the problems varied among students. Approach of supervisory inputs that have influenced supervision will be discussed, while the importance of relationship skills in supervision will be highlighted. The paper's thrust will be to discuss the important inputs in supervision process and to highlight the social nature of the interaction between supervisor and student. It is hoped to assist the institution to identify and address implementation issues related to postgraduate supervision. The major contribution of this review is the guideline for effective supervision in enhancing postgraduate research studies.

**Keywords:** Supervision, Supervisory Input, Effective Supervision, Postgraduate Research Studies

## How to cite the article:

I. Mohammad *Importance of Supervisory in Educational Progress of PhD Students* J. Hum. Ins. 2017; 1(2): 73-85. DOI: 10.22034/JHI.2017.59568

©2017 The Authors. This is an open access article under the CC BY license

## 1. Introduction

Postgraduate students basically can categorized into three main cohorts which are student with research, student with coursework and student with research and coursework. Students undertaking graduate study at universities are under increasing pressure to complete their candidature within particular timeframes, and faculty are also under similar pressure to attract and retain quality candidates who will be able to complete on time and attract funding and research quantum as well as raise the level and status of the institution's research profile. At the same time, universities are attempting to do more with less in all areas of teaching and research as funding becomes more competitive and tied to key performance indicators and accountability measures. 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 also 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. Most of postgraduate students are in dilemma because they have a lot of challenges to overcome such as family commitment, work commitment, finances et cetera, which may affect their achievements. This is harder to them who are working and married. These challenges are much greater if the students are doing part time which

<sup>1</sup> Corresponding author email: iman.m@putra.upm.edu.my

really consumes time, money, effort, patience and enthusiasm. 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.

Numerous research have pointed out that there are high proportions of graduate student who fail to complete their studies within the time given. Many factors contributing to this and the major problem is related to the supervisory contribution. Their needs in this particular matter are always become a conflict as they did not have any other sources in guiding them to go through their studies. Lack of student-supervisor relationship will caused them to extend their studies and have difficulty to finish their project. This situation will also lead to a poor quality of students' research. Whilst the interaction between supervisor and student allows a considerable degree of free expression, it is enacted within a wider context of institutional power which itself is continuously modified by that interaction. Supervision is a complex social encounter which involves two or more parties with both converging and diverging interests. Therefore, balancing these interests is very crucial to the successful supervision of postgraduate research projects.

## **2. Literature and Discussion**

### *2.1 Postgraduate Education Environment*

Inaccessibility of information and services provided by school, faculty or university contributes to low quality of student's studies. The main responsibility of the institutions is to ensure that the facilities provided are always appropriate. This is to enable students to work in an environment that is conducive and comfortable. They should provide good facilities, such as common rooms and a desk in a small shared room, similar to those used by staff member or any other aid regarding information and services. The benefit of having good facilities is that it can be a factor in students choosing the institution to pursue their study. These days, students are increasingly looking for a high quality work environment, and not just a high quality supervisor. There are circumstances where students face personality clashes, barriers to communication, cultural and language difficulties or personal differences in working approaches. For example, both international and local students perceived different problems at the different phase of their graduate studies. As an educational institution, all of these should be handled effectively to facilitate these students. Good facilities are very important as one of the mechanics for getting the work done.

In thesis program, there is a crucial need for an effective supervisory approach. Students experienced lots of difficulties during their research

process. Some of them are not familiar with the research topic and some of them are lack of knowledge about research methodology. In the other side, supervision is one of the main elements that should be taken into account when discussing about graduate students. Observation from this subject must be seriously monitored in order to guide the 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. 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 ways 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.

Many institution of higher learning are now trying to understand and achieve an effective resource. There is a prevailing belief that education has entered a new environment in which quality plays an increasingly important role. Feigenbaum (1994) believes that quality education is the key factor in invisible competition between countries. Education, in particular to higher education itself, is also being driven towards commercial competition imposed by economic forces (Seymour, 1992). This competition is the result of development of the global education markets on the one hand, and next is the reduction of governmental funds that force public organizations to seek other financial sources. Within this environment, faculties, schools and research centers are expected to create and maintain a vibrant excellent resource to put forward in which graduate students and their supervisors, in collaboration with industry partners and/or funding bodies, collectively build capacity and intellectual capital for the benefit of all. Within this context, concern for quality in higher education is perhaps at an all time high (Nielsen, 1997; Eaton, 1999). Being quality minded in education means caring about the goals, needs and interests of the students and other external groups (Whitaker and Moses, 1994).

Moreover, students are aware of their educational rights and are more likely than before to demand competent and accessible supervisors. Clarity about the roles and responsibilities of supervisors and of students is therefore of the utmost importance. In

return, it is expected this will increase knowledge and self-quality for good information and supports. Besides, effective supervisory system will become indication to students' accomplishment. Optimistically, these will lead to realization of the university's mission of becoming a centre for academic excellence. Delivering quality service, relevant information and support, and appropriate supervisory system have become an important goal for most higher education institution. One of the missions of an organization is to increase organization effectiveness, optimizing department potential through high quality in human resource development program that will bring changes to the entire management. For an excellent educational institution, students are emphasized to have a good knowledge and skills. Research students commonly have a responsibility to enhance the image of university especially Research University. However, at the same time, they are customer for the institution that should be taken care of.

## *2.2 Overview of Postgraduate Needs*

Graduate student needs can be investigated from various perspectives. An institutional perspective could provide valuable insights, for example Lessing and Schulze (2002) and Van Tonder, Wilkinson and Van Schoor (2005) refer to the South African higher education context, where transformative processes, increased graduate student numbers and the drive for quality and accountability place high demands on the academic environment for information and support to graduate students. 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. The project in question will eventually take the institutional perspective, the perspective of the supervisor and that of the student into account, although this research will focus mainly on a student perspective. 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 (2005) 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) also 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. McAlpine and Norton (2006) follow a similar line of thought, but use the departmental context as a point of departure (rather than the individual) and then refer the influences the institutional and societal contexts have on graduate students. They do, however, emphasize the central role of the student in graduate endeavors.

Research is an interactive process and requires the development of social as well as academic skills (Phillips and Pugh, 2000). A school's administrative (School of Graduate Study) function is commonly interpreted as referring to managing, operating or directing an organization (Burton and Bruekner, 1955) in order to support students towards the completion of PhD. 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 (Frisher and Larsson, 2000), 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). Faculty and Graduate School Office is the major source of academic guidance for graduate students and they go there and feel at ease discussing their problems and asking for advice. On the other hand, the students consult their academic advisor if they have academic problems.

Given the length and complexity of graduate student supervision, it is understandable that various difficulties arise (Brown and Atkins, 1988; Moses, 1985) 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. All of these issues are related to the responsibility of the school. The school should ensure that the student has been appointed a supervisor who has a similar interest and expertise in the student's research area (Donald et al., 1995) and should match the personalities of supervisors and students (Holdaway et al., 1995; Sheehan, 1993). A school must ensure that an optimum student-to-supervisor ratio of less than or equal to 6:1 is established (Donald et al., 1995). There are circumstances where a student can face a personality clash, barriers to communication, cultural or language difficulties or personal differences in the approach to work. Here the school has to ensure that it provides the best solution for the student (Donald et al., 1995). Besides that, the school should appoint an appropriate administrator to monitor the supervision provided to all graduate students and required that annual reports of student's progress be submitted to the graduate studies office or faculty (Holdaway et al., 1995).

### *2.3 Issue of Postgraduate Research Studies*

This issue have been studied and debated worldwide in the face of a changing higher education landscape. There are various stakeholders in the graduate process of study and inquiry, including the wider macro socioeconomic environment, the micro institutional and

departmental environment, as well as the individual student. Students need information and support to cope in balancing the demands of the different environments. This culminates the information in developing their research project. 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). For Australia, Martin et al. (2001) estimated that 60% of beginning doctoral candidates in 1992 would have completed successfully by 2003 (that is 11 years after initial enrolment), suggesting an attrition rate of 40%. The same study also reported considerable variation in completion rates between institutions and disciplines.

Graduate education programs worldwide, attract professionally-based, nonresidential students studying parttime. 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). These factors need to be taken into account in the design of information and support resources provided to graduate students. Service provided for students have to be well-managed and fits the students' needs. Satisfactory of these services will lead students to achieve a better quality of studies. In an effort to conceptualize service quality, Sureshchandar et al. (2001) identified five factors of service quality as critical from the customers' point of view. These factors are: (1) Core service or service product; (2) Human element of service delivery; (3) Systematization of service delivery: non-human element; (4) Tangibles of service – services capes; and (5) Social responsibility. These are the factors involved in customers' satisfaction. Here, the author addressed the customer as the

students. Lessing and Lessing (2004) adds the following general aspects that influence graduate completion rate: student-friendly, accessible administrative procedures, understanding academic and scientific requirements, ability to judge workload related to different components of the research process, retaining supervisor contact, overcoming isolation, conflict management, and the ability to take a stand and argue a position in terms of the study. Humphrey and McCarthy (1999) add the important role the provision of adequate facilities, financial support, interaction within the department and wider university, logistical arrangements and demographic factors play in graduate student success.

McAlpine and Norton (2006) stated that a serious problem exists in the academic world – doctoral education attrition rates that approach 50% in some disciplines. He then proposed a framework to guide research and graduate programs; its strength resides in its integrative and systemic perspective with student experience of learning at its core. The framework integrates the range of factors influencing students experience so that we can envision responding to this issue in a coherent and effective fashion and potentially improve poor doctoral completion rates. Students are central to the graduate undertaking. Yet, theirs is the voice that is least heard (Golde, 2000). This absence of the student's voice begins with undergraduates (Dunwoody and Frank, 1995) where information is rarely, if ever, collected as to why students drop classes. This silence becomes loud for doctoral students who meet the criteria of people who have not been heard because their points of view are believed to be unimportant or difficult to access by those in power (McLaughlin and Tierney, 1993).

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. Their academic experience may include increasing debt, competition for funding, overwhelming program requirements, isolation, competing demands

(family and unrelated employment) resulting in concerns about quality of life as well as fears about career opportunities upon completion. Thus, they need support from the institution to keep them continuing their studies. 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.

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). Meanwhile new supervisors, also increasingly diverse in their backgrounds, are learning to deal with greater demands for productivity, scrutiny of performance, and expectations for excellence in teaching as well as research. Like students, they are trying to balance these factors and situate themselves in their new community of practice while maintaining an acceptable quality of life (Acker and Armenti, 2004). While academics are aware it is their research skills, not their teaching abilities, which will lead to success in the academic world (McMahon, 2001), they are still expected to spend a great deal of time teaching courses as well as supervising students. Yet, they may not have been socialized to perceive supervision as a teaching responsibility or have thought about their discipline in terms of learning or teaching tasks (Saroyan et al., 2004). This historic disregard for developing pedagogical expertise during graduate education results in academics having little or no opportunity to learn how to support their own doctoral students during their sojourn as students (Golde and Dore, 2001).

#### *2.4 Student-Supervisor Relationship*

The relationship between student and supervisor, while powerful, is not independent of the departmental disciplinary context. Four variables influencing retention collectively contribute to this environment for both students and supervisors. Two particularly affect students: selection/admission (Kezar, 1999), and program requirements (Yeates, 2003). Traditional admission requirements often do not provide evidence of the kinds of learning that will be required of doctoral students and thus cannot foretell the potential to learn what will be expected (Hagedorn and Nora, 1996). In fact, many students entering doctoral programs are misinformed about the process of doctoral education and lack the knowledge necessary to navigate the system (Golde and Dore,

2001), clearly a failure to properly screen and inform students. Interestingly, non-traditional procedures have proven to be more effective than traditional ones (Lindblom-Ylance et al., 1996). Thus, there are needs for information about these requirements so that the students can be prepared. 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. Why is the case remains unclear; perhaps with increasingly insufficient public funding, universities now look to the community as well as student tuition fees to augment government funding (Alexander, 2001). As the level of competitiveness among universities increases, promoting the positives of their own programs and outcomes becomes essential.

Funding linked to academic work is the last variable since its presence reduces stress concerning finances, links paid work to tasks within the academic rather than the external world, and is often more flexible in scheduling than external employment. Institutions traditionally play a role in student access to external funding, such as scholarships. Internal funding includes teaching assistantships, largely distributed by departments, with institutions usually setting overall policies, and RAships negotiated between student and supervisor. Some universities have initiated new internal funding policies to reduce student's need to work outside the university. When one university limited student admissions to the number of research and teaching assistantships that humanities departments could provide, completion rates increased from 34% to 68% over 10 years (Smallwood, 2004). Funding is critical, so is the nature of the responsibilities attached to it. 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 (Helm, 1989; Jacobs, 1994; Johnston, 1996; Katz, 1997; Mouton, 2001; Sayed et al., 1998). Rademeyer (1994), Hockey (1994) and Smith et al. (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. Graduate research has an intellectual as well as a psychological component (Binns & Potter, 1989; Phillips & Pugh, 2000; Salmon, 1992; Sayed

et al., 1998; Smith et al., 1993). Rademeyer (1994) claims that internal conflicts (ever changing thoughts and feelings) and external conflicts (personal relationships, time and resource constraints) influence the process negatively. Tenacity, support by the supervisor, personal and collegial support and previous experience contribute to psychological survival (Smith et al., 1993). Students also need determination and perseverance (rather than brilliance) to complete their research (Phillips and Pugh, 2000; Smith et al., 1993). In addition, they need adequate supervision and clear communication with supervisors. They should also be familiar with evaluation criteria (Shannon, 1995).

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 programme completion (Donald et al., 1995; Holdaway, 1991).

Loganbill et al. (1982) point out that the central focus of the beginning phase in this relationship is the development of trust between the supervisor and supervisee. This is reflected in supervisee behaviour designed to make this unfamiliar experience a familiar one. The identification and definition of salient, conscious expectations regarding supervision often take place during this stage. When other issues become the focus of supervision, the relationship has moved to the mature or developing phase. To guard against maintaining unrealistic expectations in supervisees, Loganbill and Hardy (1983) emphasise the importance of the supervisor appreciation that the supervision relationship progresses over time. This implies that insufficient time and effort in establishing trust within the supervision relationship is likely to be reflected in trainee resistance to addressing client or therapist issues

because they have differential needs for support depending on the level of training. For example, Heppner and Roehkle (1984) conclude that supervisory interaction may become more complex and confrontative depending on the experience of the trainee. In this sense, the person of the supervisee is increasingly likely to become the focus of supervision as the trainee becomes more skilled.

### *2.6 Research Student Supervision*

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 (Brown and Atkins, 1988; Brown and Krager, 1985; 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).

Some writers, such as Binns and Potter (1989), Hockey (1996) and Smith (1989) discuss 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 the university was related to supervision.

### *2.7 Crucial Needs on Supervisory Input*

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.

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 (Brown and Krager, 1985; 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).

### *2.8 Effective Supervisory Practice*

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 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 provides 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 contingent (Haksever and Manisali, 2000). 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 elements of supervision (Barger and Mayo-Chamberlain, 1983; Brown, and Krager, 1985; 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.

#### Conclusion

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 and planning the study in terms of time frames. Most students, especially at Master's level, want supervisors to help them decide on due dates for chapters to be submitted. 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, most of 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. 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. Effective supervisor is essential to guide postgraduate study progress. By improving supervisory approach, we can improve the study process and enhance the research progress. Based on these literature, supervisors can therefore plan to develop capabilities in their own professional practice regarding writing for publication and to facilitate this process in their postgraduate students. Interventions can be planned for capacity building and to provide a peer

support network in which to practice the skills required for dissemination of their research to the broader scholarly community. Developing capacity and skills that will lead to publishing in a scholarly journal will contribute to the postgraduate students' academic identity and worth, an aspect which is valued and recognised worldwide especially within an increasingly globalised era. Higher education is no longer the sanctity of the elites but accessible to students from varied backgrounds and from all levels of society. While institutions of higher learning are becoming more competitive with the emerging market growth, students' perceptions of the higher education experience have become increasingly important as institutions also attempt to become more students-oriented. Therefore it is crucial for institutions of higher learning to maintain and continuously improve their resources. As an effective supervisor, there are certain important practices that should be trained in supervisory system in order to complement research and supervision needs. These important approaches need to be trained and applied in order to enhance the postgraduate research studies.

## References

- Acker, S., and Armenti, C. (2004). Sleepless in academia. *Gender and Education*, 16 (1), 3-24.
- Acker, S., Hill, T., and Black, E. (1994). Thesis supervision in the social sciences: managed or negotiated? *Higher Education*, 28, 483-98.
- Alexander, F. K. (2001). The changing face of accountability. *The Journal of Higher Education*, 71 (4), 411-432.
- Armitage, S., and Rees, C. (1988). Project supervision. *Nurse Education Today*, 8, 99-104.
- Bargar, R. R., and Mayo-Chamberlain, J. (1983). Advisor and Advisee Issues in Doctoral Education. *Journal of Higher Education*, 54(4), 407-432.
- Berger, S. S., and Bushholz, E. S. (1993). On becoming a supervisee: Preparation for learning in a supervisory relationship. *Psychotherapy*, 30(1), 1-9.
- Binns, T., and Potter, R. (1989). Improving the effectiveness of graduate supervision: Never mind the quality, feel the width. *Journal of Geography in Higher Education*, 13(2), 210-216.
- Brown, G., and Atkins, M. (1988). *Effective Teaching in Higher Education*. London: Methuen.
- Brown, R. D., and Krager, L. (1985). Ethical issues in graduate education: Faculty and student responsibilities. *Journal of Higher Education*, 56(4), 403-418.
- Burgess, R. G., Pole, C. J., and Hockey, J. (1994). Strategies for managing and supervising the social science PhD. In Hockey, J. (1996). *Strategies and tactics in the supervision of UK social science PhD students*, *Qualitative Studies in Education*, 9(4), 481-500.
- Burton, W. H., and Brueckner, L. J. (1995). *Supervision – A Social Process*. New York: Appleton-Century-Crofts. Inc.
- Butterworth, T., Faugier, J., and Burnard, P. (1992). *Clinical Supervision and Mentorship in Nursing* (2nd ed.). Cheltenham: Stanley Thornes Publishers Ltd.
- Carroll, M. (1996). *Counselling Supervision-Theory, Skills and Practice*. London: Cassell.
- Connell, R. (1985). How to supervise a PhD. In Buttery, E. A., (Eds.) (2005). *An overview of the elements that influence efficiency in graduate supervisory practice arrangements*. *International Journal of Educational Management*, 19(1), 7-26.
- Council of Graduate Schools (1990). Research student and supervisor. In Donald, J. G. (Eds.) (1995). *Graduate student supervision policies and procedures: A case study of issues and factors affecting graduate study*. *The Canadian Journal of Higher Education*, XXV(3), 71-92.
- Cryer, P. (2000). *The Research Student's Guide to Success*. Buckingham: Open University Press.
- Donald, J. G., Saroyan, A., and Denison, D. B. (1995). *Graduate student supervision policies and procedures: A case study of issues and factors affecting graduate study*. *The Canadian Journal of Higher Education*, XXV(3), 71-92.
- Dunwoody, P. T., & Frank, M. L. (1995). Why students withdraw from class. *The Journal of Psychology*, 129 (5), 553-558.
- Eaton, J. S. (1999). Distance education is on your doorstep. *Trusteeship*, 7(1), 23-27.
- Elgar, F. (2003). *PhD Completion in Canadian Universities*. Final Report. Halifax, Nova Scotia: Graduate Students Association of Canada.
- Ellis, E. M. (2001). The impact of race and gender on graduate school socialization, satisfaction with doctoral study, and commitment to degree completion. *Western Journal of Black Studies*, 25 (1), 30-45.
- Feigenbaum, A. V. (1994). Quality education and America's competitiveness. *Quality Progress*, (27)9, 83-4.
- Fowler, J. (1999). *The Handbook of Clinical Supervision: Your Questions Answered*. Wiltshire: Mark Allen Publishing Limited.
- Frischer, J., and Larsson, K. (2000). Laissez-faire in research Education – An inquiry into a Swedish Doctoral Program. *Higher Education Policy*, 13(2), 132-155.
- Golde, C. M., and Dore, T. M. (2001). At cross purposes: What the experiences of doctoral

- students reveal about doctoral education. Philadelphia, PA: A report for the Pew Charitable Trusts.
26. Golde, C. M. (2000). Should I stay or should I go? Student descriptions of the doctoral attrition process. *The Review of Higher Education*, 23 (2), 199-227.
  27. Goldhammer, R., Anderson, R. H., and Krajewski, R. J. (1980). *Clinical Supervision- Special Methods for the Supervision of Teachers*. USA: Holt, Rinehart and Winston.
  28. Goodyear, R., Crego, C., and Johnston, M. (1992). Ethical issues in the supervision of student research: A study of critical incidents. *Professional Psychology: Research and Practice*, 23(3), 203-210.
  29. Hagedorn, L., & Nora, A. (1996). Rethinking admissions criteria in graduate and professional programs. In J. Haworth, (Ed.), *Assessing graduate and professional education: Current realities, future prospects*. *New Directions for Institutional Research*, 92, 31-44.
  30. Haksever, A. M., and Manisali, E. (2000). Assessing supervision requirements of PhD students: The case of construction management and engineering in the UK. *European Journal of Engineering Education*, 25(1), 19-32.
  31. Hawkins, P., and Shohet, R. (1989) *Supervision in the Helping Professions. An Individual, Group and Organizational Approach*. Milton Keynes: Open University Press.
  32. Helm, C. A. G. (1989). Maatreëls om die probleme van nagraadse navorsingstudente te verminder-'n literatuurstudie. *Suid-Afrikaanse Tydskrif vir Hoër Onderwys*, 3(2), 79-85.
  33. Heppner, P. P. and Roehlke, H. J. (1984). Differences Among Supervisees at Different Levels of Training: Implications for a Developmental Model of Supervision. In Barnfield, K. (2004). *An Introductory Manual for Intern Supervisors*. Available at: <http://www.psc.uc.edu/rs/tm/TM%20Manual%20for%20Intern%20Superv.htm> (Accessed Dec. 12, 2004).
  34. Hill, T., Acker, S., and Black, E. (1994). Research students and their Supervisor. In McQueeney, E. (1996). *The nature of effective research supervision. A Journal for Further and Higher Education in Scotland*, 20(1), 23-30.
  35. Hockey, J (1994). Establishing boundaries: problems and solutions in managing the PhD supervisor's role. *Cambridge Journal of Education*, 24(2): 293-305.
  36. Hockey, J. (1996). Strategies and tactics in the supervision of UK social science PhD students. *Qualitative Studies in Education*, 9(4), 481-500.
  37. Holdaway, E., Deblois, C., and Winchester, I. (1995). Supervision of graduate students. *The Canadian Journal of Higher Education*, XXV(3), 1-29.
  38. Holloway, E. L. (1995). *Clinical Supervision- System Approach*. California: SAGE Publications.
  39. Humphrey, R., and McCarthey, P. (1999). Recognising difference: providing for graduate students. *Studies in Higher Education*, 24(3): 371-386.
  40. Ives, G., & Rowley, G. (2005). Supervisor selection or allocation and continuity of supervision: PhD. students' progress and outcomes. *Studies in Higher Education*, 30(5): 535-555.
  41. Jacobs, L. J. (1994). Die rol van die studieleier of promotor. *Progressio*, 16(2), 29-34.
  42. Johnson, S., & Broda, J. (1996). Supporting educational researchers of the future. *Educational Review*, 48 (3), 269-281.
  43. Johnston, S. (1996). Professional development for graduate supervision. *Australian Universities' Review*, 38(2), 12-15.
  44. Katz, E. L. (1997). Key players in the dissertation process. *New Directions for Higher Education*, 25(3), 16-19.
  45. Kezar, A. (1999). *Higher Education Trends (97-99): Graduate and Professional Education*. Washington, D.C.: Office of Educational Development and Improvement.
  46. Kiley, M., and Austin, A. (2000). Australian graduate students' perceptions, preferences and mobility. *Higher Education Research and Development*, 19(1), 75-88.
  47. Kohner, N. (1994). *Clinical Supervision in Practice*. In Swain, G. (1995). *Clinical Supervision- The Principles and Process*. London: College Hill Press Ltd.
  48. Lee, A., and Green, B. (1998). Introduction graduate studies/graduate pedagogy. In Lee, A. (Eds.). *Graduate studies graduate pedagogy*. Sydney: Centre for Language and Literacy, Sydney University of Technology.
  49. Lessing, A. C., and Schulze, S. (2002). Graduate supervision and academic support: students' perceptions. *South African Journal of Higher Education*, 16(2), 139-149.
  50. Lessing, N., & Lessing, A. C. (2004). The supervision of research for dissertations and theses. *Acta Commercial*, 4, 73-89.
  51. Lin, L., and Cranton, P. (2005). From scholarship student to responsible scholar: a transformative process. *Teaching in Higher Education*, 10(4), 447-459.

52. Lindblom-Ylänne, S., Lonka, K., and Leskinen, E. (1996). Selecting students for medical school: What predicts success during basic science studies? A cognitive approach. *Higher Education*, 31 (4), 507-527.
53. Loganbill, C. and Hardy, E. (1983). Developing training programs for clinical supervisors. *The Clinical Supervisor*, 1, 15-21.
54. Loganbill, C., Hardy, E., and Delworth, U. (1982). Supervision: A conceptual model. In Barnfield, K. (2004). An Introductory Manual for Intern Supervisors. Available at: <http://www.psc.uc.edu/rs/tm/TM%20Manual%20for%20Intern%20Superv.htm> (Accessed Dec. 12, 2004).
55. Lovitts, B. E. (2005). Being a good course-taker is not enough: a theoretical perspective on the transition to independent research. *Studies in Higher Education*, 30(2): 137-154.
56. Mackinnon, J. (2004). Academic supervision: seeking metaphors and models for quality. *Journal of Further and Higher Education*, 28(4), 395-405.
57. Malfroy, J. (2005). Doctoral supervision, workplace research and changing pedagogic practices. *Higher Education Research and Development*, 24(2), 165-178.
58. Manathunga, C. (2005). The development of research supervision: Turning the light on a private space. *International Journal for Academic Development*, 10(1), 17-30.
59. Martin, Y. M., Maclachlan, M., & Karmel, T. (2001). Graduate Completion Rates. Occasional Paper Series, Higher Education Division, DETYA (now DEST).
60. McAlpine, L., and Norton, J. (2006). Reframing our approach to doctoral programs: an interactive framework for action and research. *Higher Education Research and Development*, 25(1), 3-17.
61. McAlpine, L., and Weiss, J. (2000). Mostly true confessions: Joint meaning-making about the thesis journey. *Canadian Journal of Higher Education*, 30 (1), 1-26.
62. McCormack, C., & Pamphilon, B. (2004). More than a confessional: postmodern group work to support graduate supervisors' professional development. *Innovation in Education and Teaching International*, 41(1), 23-37.
63. McLaughlin, D., & Tierney, W. G. (1993). Naming silenced lives: Personal narratives and processes of educational change. New York: Routledge.
64. McMahan, P. (2001). Higher Education Research & Development HERDSA News, April 2001.
65. McQueeney, E. (1996). The nature of effective research supervision. *A Journal for Further and Higher Education in Scotland*, 20(1), 23-31.
66. McWilliam, E., & Palmer, P. (1998). Teaching tech(n)o(bodies): Open learning and graduate pedagogy. In Lee, (Eds.). *Graduate Studies Graduate Pedagogy*. Sydney: Centre for Language and Literacy, Sydney University of Technology.
67. Moses, I. (1992). Good Supervisory Practice. In Holdaway, E., (Eds.) (1995). *Supervision of Graduate Students*. *The Canadian Journal of Higher Education*, XXV(3), 1-29.
68. Moses, I. (1985). Supervising Postgraduates. In Holdaway, E., Deblois, C. and Winchester, I. (1995). *Supervision of Graduate Students*. *The Canadian Journal of Higher Education*, XXV(3), 1-29.
69. Mouton, J. (2001). *How to Succeed in your Master's and Doctoral Studies*. Pretoria: Van Schaik.
70. Neufeldt, S. A. (2004). *Clinical Supervision, Therapist Development and Culturally Sensitive Practice*. Available at: <http://www.psychsem.com/clinicalsup.html> (Accessed April 01, 2004).
71. Nielsen, H. D. (1997). Quality assessment and quality assurance in distance teacher education. *Distance Education*, 18(2), 284-317.
72. Page, S., and Wosket, V. (1994). *Supervising the Counsellor. A Cyclical Model*. London: Routledge.
73. Phillips, E. M., and Pugh, D. S. (2000). *How to Get a PhD- A Handbook for Students and Their Supervisors*. Buckingham: Open University Press.
74. Piccinin, S. J. (2000). *Graduate Student Supervision: Resources for Supervisors and Students*. Triannual Newsletter, Centre for Development of Teaching and Learning (CDTL). CDTLink: University of Ottawa, Canada.
75. Pierce, E. C. (2004). Supervision. Available at: <http://home.san.rr.com/edwardpierce/Supervision%20Contract.htm> (Accessed April 02, 2004).
76. Van Ooijen, E. (2000). *Clinical Supervision- A Practical Guide*. London: Churchill Livingstone.
77. Proctor, B. (1988). *Supervision: A Cooperative Exercise in Accountability*. In Fowler, J. (1999). *The Handbook of Clinical Supervision: Your Questions Answered*. Wiltshire: Mark Allen Publishing Limited.
78. Rademeyer, G. (1994). Thesis supervision: getting the genie out of the lamp. *South African Journal of Higher Education*, 8(2), 92-95.
79. Rogers, C. (1957). More Input Required. In Fowler, J. (1999). *The Handbook of Clinical*

- Supervision: Your Questions Answered. Wiltshire: Mark Allen Publishing Limited.
81. Russell, A. (1996). Graduate Research: Student and Supervisor Views. The Flinders University of South Australia.
  82. Salmon, P. (1992). Achieving a PhD- Ten Student's Experience. Staffordshire: Trentham Books Limited.
  83. Saroyan, A., Amundsen, C., McAlpine, L., Weston, C., Winer, L., and Gandell, T. (2004). Tenets underlying our approach to faculty development. In A. Saroyan and C. Amundsen (Eds.) Rethinking teaching in higher education: From a course design workshop to a faculty development framework. Sterling, VA: Stylus publishing.
  84. Sayed, Y., Kruss, G., and Badat, S. (1998). Students' experience of graduate supervision at the University of the Western Cape. *Journal of Further and Higher Education*, 22(3), 275-285.
  85. Seagram, B., Gould, J., and Pyke, S. (1998) An investigation of gender and other variables on time to completion of doctoral degrees, *Research in Higher Education*, 39 (3), 319-335.
  86. Sheehan, J. (1993). Issues in the supervision of graduate research students in nursing. *Journal of Advanced Nursing*, 18, 880-885.
  87. Sheehan, P. (1994). From thesis writing to research application: Learning the research culture. In McQueeney, E. (1996). The nature of effective research supervision. *A Journal for Further and Higher Education in Scotland*, 20(1), 23-30.
  88. Smallwood, S. (2004). Doctor dropout: High attrition from PhD programs is sucking away time, talent and money and breaking some hearts too. *The Chronicle of Higher Education*, 50(19), A10.
  89. Smith, R. (1989). Research Degrees and Supervision in Polytechnics. *Journal of Further and Higher Education*, 13(1), 76-83.
  90. Smith, P. and West-Burnham, J. (1993). *Mentoring in the Effective School*. Essex: Redwood Books.
  91. Spear, R. H. (2000). *Supervision of Research Students: Responding to Student Expectations*. The Australian National University, Canberra.
  92. Sureshchandar, G. S., Rajendran, C., and Kamalanabhan, T.J. (2001). Customer perceptions of service quality – a critique. *Total Quality Management*, 12, 111-24.
  93. Taylor, P. (1995). Graduate education and open learning: Anticipating a new order. In Buttery, E. A., (Eds.). *An Overview of the elements that influence efficiency in graduate supervisory practice arrangements*. *International Journal of Educational Management*, 19(1), 7-26.
  94. Van Tonder, S. P., Wilkinson, A. C., and Van Schoor, J. H. (2005). Patchwork text: Innovative assessment to address the diverse needs of graduate learners at the African University of the 21st century. *South African Journal of Higher Education*, 19, 1282-1305.
  95. Waitie, D. (1994). Understanding supervision: An exploration of aspiring supervisors' definitions. *Journal of Curriculum and Supervision*, 10(1), 60-76.
  96. Whitaker, K. S., and Moses, M. C. (1994). *The restructuring handbook: A guide to school revitalization*. Needham Heights: Allyn and Bacon.
  97. Wilkin, P., Bowers, L., and Monk, J. (1997). Clinical supervision: Managing the resistance. *Nursing Times*, 93(8), 48-49.
  98. Wright, T., and Cochrane, R. (2000). Factors influencing successful submission of PhD theses. *Studies in Higher Education*, 25 (2), 181-195.
  99. Yeates, M. (2003). Graduate student conundrum. *University Affairs*, 38-39.