

The Importance of Graduate Students' Needs on Supervisory Contribution in a Malaysian Public University

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Abstract: Postgraduate students are those that are building an academic career path after their Higher National Degree or Bachelor Degree. The training and preparation at this level are of vital importance. This culminates into writing of thesis or dissertation. Supervision is an intensive, interpersonally focused one-to-one relationship between the supervisor and the student. In this process, the supervisor is designated to facilitate the student's academic development. The main objective of this study is to identify the students' needs in terms of supervisory system. Supervisory system in this study will be discussed on research and supervision. Questionnaires were sent to 341 graduate students in a public university by purposive sampling. They were Master or Ph.D students with thesis program. About 184 (53.96%) of them were returned and usable. The majority of respondents found that the supervisory aspects generally very accessible. The study thrust will be to highlight the importance of supervisory contribution to graduate study. Supervisory contributions in this research were categorized into five which are managerial, research, academic, language and interpersonal input. Respondents perceived that managerial input was at the highest priority. It is followed by research input with a mean of 4.26. Academic and Interpersonal Input was rating at the third and fourth rank with mean of 4.22 and 4.21. Language inputs fall at the last rank. The study revealed that postgraduate students have different approaches in what they perceived as an effective supervision. The study also revealed that there certain needs highlighted by graduate students to be practiced. Therefore, balancing these needs is very crucial to the successful supervision of postgraduate research projects. Developing skills towards an effective supervision needs to be tackled in various ways. Effective supervisor is essential to guide postgraduate students during their progress in graduate study.

Key words: Postgraduate, supervisor, effective supervision, students' needs, supervisory contribution

INTRODUCTION

The desire to pursue higher education is constantly increasing. The government and the institutions of higher learning are striving to attract more students, especially at the graduate level by making every effort to provide quality education. Students need information and support to cope in balancing the demands of the different environments. One of the major problems facing by the higher education nowadays is attrition and completion rates. To sustain a high completion rates, one of the most challenges role of the supervisor is to ensure effective facilitate and responsible to assist the students in their research. The study was mainly focusing on graduate students' needs. They have different needs at the different level of graduate studies. The needs also varied from one student to the others. This study will discuss their needs in terms of supervisory system. Here,

supervisory system consists of research and supervision. The supervisory system cannot be existed without these fundamentals.

If we observe the situation in this university, based on the data gathered by Graduate School of Graduate Studies (GSO) in 2005 graduate student with thesis (research and coursework) completed their masters averagely within 2.69 years and Ph.D student completed their Ph.D within 4.84 years averagely where as, they could complete it earlier than that. This scenario is worrisome if the duration of their study become longer and longer. The research process should run smoothly if there are adequate and excellent supports by the institution. The concern about higher degree non-completion and time taken to completion 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 >50% (D'Andrea, 2002). However, some university estimates have suggested that attrition over the first several years of candidature is <40%. Other studies have suggested that >1/3 leave in the 1st 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. 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).

Students undertaking graduate study at universities are under increasing pressure to complete their candidature within particular timeframes. Research students represent a significant range of diversity: age, cultures, experience and ability, part-time, full-time, internal or external, their needs change over time/place/space and sometimes with, but mostly without scholarships or other funding support. There are also pressure on research students to: Complete within candidature time (reduced learning entitlement), publish/present conference papers, support families/jobs and 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, finance et cetera, which may affect their achievements since most of them are working and married students. These challenges are much greater if the students are doing part time which really consumes time, money, effort, patience and enthusiasm. Most of them either financing 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 system. 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 research outcome.

Seagram *et al.* (1998) indicate that the supervisor-student good relationship is the key factor in the success or failure of students' studies or research. 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 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 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 administered 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. 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. The resource in this study was discussed in terms of supervisory system that can be explained by research and supervision.

The main objective of this study is to identify the needs of graduate research students towards the supervisory system. This research also seeks to investigate graduate research students' expectation and needs through these elements. The specific objective addressed in this study is to identify students' needs towards the supervisory system in a Malaysian public university in terms of research and supervision.

MATERIALS AND METHODS

Graduate student 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 (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 research 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 micro-environments, as well as individual resources as influences in graduate completion and creative performance.

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). 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.

Needs on supervisory system: Various studies have reported on the importance of interpersonal relationships between graduate students and their supervisors as a determinant of student success (Lessing and Schulze, 2002; Ives and Rowley, 2005; Lin and Cranton, 2005). The supervisor often becomes the face of the faculty for graduate students, 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 researchers 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 research effectively (McQueeney, 1996). Supervisors who have this flexibility can be more helpful to their research students (Haksever and Manisali, 2000).

Effective supervisory system: 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. 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 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. 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), procedures and appropriate inter-professional relationships and participate fully in the supervisory relationship (Carroll, 1996). The following skills as required by the supervisor: communication skills (Butterworth *et al.*, 1992; Holloway, 1995), which involve being attentive and actively listening (Rogers, 1957) and supportive skills which involve being able to identify when support is needed and offer supportive responses (Fowler, 1999; Holloway, 1995; Rogers, 1957). 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.

The responsibilities of supervisor: 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 research 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, 1991). 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: personal help: support, motivation, socializing, help in organizing accommodation and other things that may be required, but are unrelated to the research, indirect research related help: providing contacts, both industrial and academic, providing equipment and initial help in locating references and direct research-related help: critical analysis of research, 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. Consequently, the supervisory process requires constant adjustment, great sensitivity and interpersonal skill on the part of both the supervisor and student (Hockey, 1995, 1996). 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). 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.

The framework of this study was based on a few theories by experienced and expert scholars. This is a descriptive research design, where, it is aimed to investigate the perception of graduate students towards the information and services offered by a public university. The sample consist only one cohort; graduate students which were already within the system (who have been registered). There were 341 sample out of 3523 students in the population has been identified as the respondents. The population of this research involved graduate students at master's or doctoral levels with thesis program. Purposive sampling method was used in this research. The students were met at the faculty especially after classes.

Faculty's staff helped the researcher to locate the students especially for seminar and research method classes. They were believed meeting the required criteria and the representative of the given population. The questionnaires were distributed at all faculties to ensure that there is an equal distribution to every respondent in a public university. This study was conducted via questionnaires by hand. About 184 (53.96%) of the questionnaires were return from 341. It is slightly higher than the response rate achieved by Lessing and Schulze (2002) of 41% and by Adey (1997) of 37% in a similar study. The data were analyzed accordingly (quantitative questions by means of basic statistical analysis in and qualitative questions by means of content analysis). The results obtained through these questionnaires will now be discussed in greater depth.

RESULTS AND DISCUSSION

This study revealed the perception of graduate students need in terms supervisory system. A total of 352 (N = 341) questionnaires were distributed to graduate students and only 184 (N = 184) were returned successfully.

Profile of the respondents: Here, we contains the profile of the respondents. The demographic items for profile respondents are: age, gender, marital status, faculty, program of study, year of study, discipline of study, student status (in or off-campus) and nationality.

The majority of the respondents were <30 years old. The result also exposed that the majority of respondents were under the common retirement age (55-60 years). The respondents were relatively distributed between the age groups of below 30 years (n = 145) and 31-50 years (n = 39). About 78.8% respondents fall in below 30 years age group. This implied a distribution skewed towards younger adults. The results showed that a majority of the respondents were females (64.7%) and 35.3% (n = 65) of the respondents were males. Female respondents were more than the male respondents. Results showed that 73.9% (n = 136) respondents were single, 25.5% were married and only 1 respondent was divorced. It is clearly showed that the majority of the respondents were single. The chart shows that the highest response came from faculty of education (n = 54) and faculty of engineering (n = 40). It is followed by faculty of science (8.7%) and faculty of modern languages and communication (7.6%). These four faculties have the highest numbers of graduate research.

Results showed the majority of the respondents were master students with n = 149 (81%) and only 34 (18.5%) were the Ph.D students. All respondents were pursuing their study with thesis program. Most of the respondents were second year students (n = 95) followed by third year students, 30.4% (n = 56). Respondents in their first year were 23 (12.5%) and forth year and above were 5.4% (n = 10). The result showed that the majority of the respondents were from second year and above. About 59.7% (n = 110) of the respondents were from science and 40.2% (n = 74) were from social science discipline. The numbers of science students were higher than the students of social science. We can see that 66.3% of the respondents (n = 122) were staying in campus while 62 (33.7%) respondents were off-campus. It seemed like most of the students were choose to stay in campus compared to the outside. In terms of nationality, 137 respondents (74.5%) were Malaysian and 47 respondents (25.5%) were international students. From the data, the majority of international students were from Iran, Iraq and Indonesia (Table 1).

The profile of the students correspond to what was found in literature, indicating that they are mostly mature learners who have to cope with balancing work, family and their studies. The majority of the respondents has been in their graduate program of choice for at least a semester and was therefore able to articulate their needs in terms of supervision's information and support. It is supported by Humphrey and McCarthy (1999) where they explained that many graduate students are mature and/or distance learners with needs different to those of residential and undergraduate students. The results also explained that more than half of the respondents are female and >50% of them are from science discipline. It is match up by the current situation in Malaysian Universities where the majority of the students are female for >60% and Malaysian Government currently emphasized more to science discipline compared to others since these courses are very important to the government especially in Research and Development areas.

Table 1: Summary of respondents' profile (n = 184)

Demographic profile	Percentage and N-values	Discipline of study		
		Science	Social science	Total
Age				
Below 30	N	100.0	45.0	145.0
	Total (%)	54.3	5.4	78.8
31-50	N	10.0	29.0	39.0
	Total (%)	24.5	15.8	21.2
Gender				
Male	N	47.0	18.0	65.0
	Total (%)	25.5	9.8	35.3
Female	N	63.0	56.0	119.0
	Total (%)	34.2	30.4	64.7
Marital status				
Single	N	94.0	42.0	136.0
	Total (%)	51.1	22.8	73.9
Married	N	16.0	31.0	47.0
	Total (%)	8.7	16.8	25.5
Divorced	N	0.0	1.0	1.0
	Total (%)	0.0	0.5	0.5
Study program				
Master	N	94.0	56.0	149.0
	Total (%)	51.1	30.4	81.5
Ph.D	N	16.0	18.0	34.0
	Total (%)	8.7	9.8	18.5
Year of study				
1st	N	10.0	13.0	23.0
	Total (%)	5.4	7.1	12.5
2nd	N	64.0	31.0	95.0
	Total (%)	34.8	16.8	51.6
3rd	N	33.0	23.0	56.0
	Total (%)	17.9	12.5	30.4
4th	N	3.0	7.0	10.0
	Total (%)	1.6	3.8	5.4
Student status				
In campus	N	70.0	52.0	120.0
	Total (%)	38.0	28.3	66.3
Off campus	N	40.0	22.0	60.0
	Total (%)	21.7	12.0	33.7
Nationality				
Malaysian	N	79.0	58.0	137.0
	Total (%)	42.9	31.5	74.5
International	N	31.0	16.0	47.0
	Total (%)	16.8	8.7	25.5

Resource needs: The resource in this study was discussed on the subject of research and supervision areas. The results of graduate students' needs towards the resources have been gathered. The results will discuss about supervisory system. In this system, there exist two elements which are research and supervision. The system cannot stand alone only by the supervision that involves the interaction between student and the supervisor. Research aspect should be include in the system so that both parties could understand their roles and capable to manage the system effectively.

The importance of needs on supervisory contribution to graduate studies: Respondents were asked about the perception of the importance of supervisors' contribution in various aspects of the research process and experience. The aspects are managerial input, research input, academic input, language input and interpersonal input. Respondents were asked to indicate the level of aspects' importance by rating the scale. For managerial input, the aspects are the process of planning, organizing, directing, monitoring and time management. For research input, it covered the process from topic selection to technical procedures and analysis. Academic input is more on tutoring and mentoring academically. Language input discussed the contribution in terms of writing skills and format. For interpersonal input, respondents were asked the issue about counseling, emotional and moral support. Respondents were asked how important they perceived their supervisors' input were in different aspects of graduate study. Table 2 provides an overview of the

responses. The results found that managerial input is the most important supervisory contribution among all. It is followed by research input, academic input, interpersonal input and language input.

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. Here, we can see that the mean for oral and written communication mean was 4.09. Respondents perceived that it is very highly led important for the supervisor to check on their oral and written skills. However, graduate school of faculty can offer courses, workshops or tutorials to assist graduate students who wish to enhance their communication and writing skills. As depicted in Table 2, the respondents perceived that the most importance interpersonal inputs are motivation and counseling with means of 4.28 and 4.25. Clearly, supervisors are not trained counselors and cannot be expected to help in a professional sense, nor should they intrude into the personal lives of their students with unwanted advice. 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

Table 2: Overall rank respondents' perceived importance of needs on supervisory contribution (n = 184)

Rank	Item	Input	Mean	SD	Level
1	Monitoring: supervises my progress	Managerial	4.43	0.87	H-M
2	Statistical procedures and analysis: share his/her knowledge with me or refers me to an expert	Research	4.36	0.90	H-M
3	Evaluation: provides input on the quality of my research	Academic	4.35	0.89	H-M
4	Planning: guides me to set objectives for my research process	Managerial	4.33	0.79	H-M
5	Research methodology: advices me on appropriate methods for my research	Research	4.33	0.81	H-M
6	Topic selection: gives me advice about relevant/feasible topics	Research	4.32	0.83	H-M
7	Assessing: assess my progress continuously	Academic	4.28	0.86	H-M
8	Motivation: gives me praise/positive feedback	Interpersonal	4.28	0.94	H-M
9	Time-management: guides me to set realistic time-frames for my research process	Managerial	4.27	0.92	H-M
10	Directing: advises me with information on relevant sources	Managerial	4.27	0.82	H-M
11	Editing skills: teaches me to use a consistent scientific format and style	Language	4.27	0.91	H-M
12	Counseling: listens actively to my problems/fears	Interpersonal	4.25	0.91	H-M
13	Scientific writing skills: develops my argument logically, teaches me to use language concisely	Language	4.25	0.85	H-M
14	Organizing: advises me for follow-up meetings with me	Managerial	4.24	0.80	H-M
15	Emotional support: encourages, knows my circumstances	Interpersonal	4.21	0.93	H-M
16	Conflict management: handles possible disputes positively	Interpersonal	4.20	0.96	H-M
17	Discipline/subject field expertise: shares up to data knowledge on latest trends in research with me	Academic	4.20	1.04	H-M
18	Research proposal: guides me with criteria for my research proposal	Research	4.20	0.86	H-M
19	Mentoring: guides me by example	Academic	4.19	0.91	H-M
20	Referencing techniques: guides me to use references responsibly according to prescribed format	Language	4.18	0.86	H-M
21	Language rules: extends my vocabulary through feedback	Language	4.17	0.81	H-M
22	Oral and written communication: checks for my meaning during our conversations	Interpersonal	4.09	0.95	H-L
23	Tutoring: guides me on research methodology	Academic	4.08	1.02	H-L
24	Reading skills: guides me through specific reading techniques to a prescribed format	Language	4.07	0.88	H-L
25	Literature review: advises me on how to access information	Research	4.07	0.93	H-L

english, writing, by collecting relevant literature and through networking or putting students in contact with others in the area (Brown and Adkins, 1988). Based on this research, the respondents perceived that language inputs are very important especially in language rules and scientific writing skills. Language inputs fall at the last rank but the mean is still high with 0.74. Some respondents perceived that input for reading skills and language rules are not important at with the lowest means of 4.17 and 4.07. This might be they already knowledgeable in this skills experienced during their master degree or get guidance by other sources.

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. A respondent responded that lecturers/supervisors should help students more instead of let them on their own. Guide students from the first step they entered university especially out campus students especially those who has to travel from places. They took the effort to come to university and at the end of the day they become so frustrated with the facility/advices provides. For research aspect, respondents perceived that research design and methodology and writing skills are the most difficult stage in their research process. Respondents noted university should improve skill and development on research, planning and organizing in doing research, be more specific. Respondents noted various skills they have learned during graduate study. The reported skills can be summarized as generic scientific skills, methodological skills and personal management skills. Besides, students need more assistance in managerial and research input. They need support from their supervisor to manage their studies effectively. Project management as a researcher and obtaining cooperation from the environment where research is conducted were noted as an important skills needed during graduate studies. Graduate study therefore not only develops students' research capacity, but needs to focus on the holistic development of the student as scholar.

Students perceived research design and methodology and writing skills are the most difficult process in the research. Managerial and Research Input are the most importance contribution they need from students' perspective. Realization from this condition, supervisors are encouraged to contribute more on these inputs. The results of this study support earlier researches that supervisors are playing a multi-functional

role. Thus, supervisors are hoping can handle with difficulties or problematic experienced aspects reported by the respondents included a lack of time management skills, including balancing their various responsibilities as adult learners. Other work responsibilities would often take precedence over studies, especially if there was not financial gain to be had from continuing studies. Feelings of isolation and a lack of motivation were also noted as hindrances to success by some respondents. There was one respondent noted that the continuous work load graduate studies demands can be problematic, in that it differs from the focus on summative assessment usually done at the undergraduate level.

It is 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. Through, the findings of the study, it brings several implications to those who are involved in graduate studies. A major contribution of this study is as the guideline for effective supervisory system. Students' expectations are not entirely met regarding some aspects of supervision. Among others, they 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 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, over burdened 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 research has revealed the best practices of a supervisor. Effective supervisor is essential to guide graduate study progress.

CONCLUSION

Graduate students sometimes experienced some difficulty in their research process and all supervisory inputs seemed equally important to the students. Thus, this concluded that the effective resource in supervisory system is 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. The results obtained in this study are indicative of postgraduate students' needs during their progress through a postgraduate program. This study has explored the experience, perception and problems of graduate students. 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 study are so important to these students. Good relationship between student and supervisor will ensure their research project is completed successfully. This research also has revealed the best practices of a supervisor. Effective supervisor is essential to guide postgraduate study progress. Supervisory systems are important element 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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