RESEARCH ARTICLE

Effective practices of research supervisors in handling postgraduate students

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ABSTRACT

Background and Objectives: There were issues and dearth of studies on postgraduate research supervision across all fields and discipline. This study sought to describe the effective practices of university research supervisors handling postgraduate students in education and health sciences.

Methodology: A descriptive qualitative design was used to understand the effective research supervision practices based on the experiences of 10 university research supervisors in handling postgraduate students in the fields of education and health sciences. All supervisors voluntarily accomplished an online questionnaire consisting of 10 open-ended items. Their responses underwent thematic analysis.

Results: Evidence of expertise among the research supervisors was established. Data from the responses of the research supervisors were grouped into themes and analyzed according to the conceptual models of effective research supervision of Lee [7] namely functional model, emancipation model, relationship development model, critical thinking model, and enculturation model. Most of the responses on effective practices fall under the functional model wherein supervisors need to have directing and project management skills. Practices under this model were further categorized into communication, feedback, monitoring, managing and research process-related matters. Distinct findings in this study categorized under the other models include having dialogue with supervisees, respecting supervisees as thinkers, and showing respect to supervisees. Ineffective practices were also recognized. They included not reading the supervisee's work, imposing solutions to supervisees, pressuring them and not taking advising duties professionally.

Conclusion: Most of the effective practices of research supervisors in handling postgraduate students are founded on their supervisory functions particularly in their directing and project management activities.

Keywords: *postgraduate supervision, research supervision, research supervisors, conceptual models, functional model*

Introduction

Postgraduate supervision is a complex style of teaching through research work [1] and it requires that both the student and supervisors to engage in the interactional process [2]. Calma [3] in his study entitled: "Postgraduate Supervision in the Philippines: Setting the Research Agenda," listed some issues about postgraduate supervision in the Philippines. According to his observations, supervisors lack the area expertise. There is usually one supervisor to each candidate and a mismatch may exist between the candidate's research topic and the supervisor's expertise. Only full-time faculty members are allocated with candidates. Postgraduate students would have the coursework first, then the comprehensive examination and their research proposal thereafter. Unlike in other countries, upon entry, the students are already required to submit

their research proposals and suitable supervisors will be assigned to them. Some students would take their thesis or dissertation just as a requirement to fulfil and not as something to contribute to their fields. Some supervisors have little or no experience neither in doing research nor in having publication.

What Calma [3] had observed in the Philippines was affirmed by Kimani [1], Baptista [4] and Ismail *et al.* [5] in the field of humanities social sciences and education. Kimani [1] recognized importance of quality control in postgraduate supervision and listed the following challenges among supervisors which Baptista [4] also had listed based on the postgraduate students' reflection on the practice of their own supervisors. They included the increase in the number of

postgraduate students to handle often with different characteristics which resulted to overwork among supervisors; the mismatch between students and supervisors' agenda resulting to conflicts and strained relationships and change of supervisors; confusion due to difference in the views among co-supervisors; different expectations between the supervisors and students because supervisors may lack the practical or professional knowledge; undefined professional boundaries between supervisors and students; inability to meet students' and university's expectations; unavailability or lack of availability of supervisors which may lead to the insufficient or lack of timely feedback; and low utilization of information technology [1,4]. Findings in the study of Ismail *et al.* [5] also identified three major issues as reported by research students with regard to their supervisors: the lack of positive communication, lack of necessary expertise to give support and power conflicts. Lack of positive communication referred to the negative feeling when communicating with the supervisor. The supervisor was found lacking in encouragement and constructive feedback. Aside from lack of positive communication, another source of conflict was the lack of necessary expertise to give support. There were research supervisors who did not have enough experience for the task and would not be capable to guide the students to have a better conceptualization of his/her study. Power conflicts were another concern wherein there were two or more supervisors handling the research students with conflicting advices. In this case the students needed to please the main supervisor and the other supervisors in a situation wherein the delineation of these roles was vague [5]. These reflections of the postgraduate students in Education were the same with those from the fields of Engineering and Management. In the study of Alam *et al.* [2], majority of the Engineering and Management postgraduate students were satisfied with their supervisors but the remaining students did not receive their expected support and fall behind against their set timeline. They also did not receive timely advice and guidance. Some also experienced a temporary breakdown of relationship with their supervisors. Among Nursing and Midwifery postgraduate students in the study of Severinsson [6], there was a recognized difficulty in communication and a change in the supervisor due to lack of accessibility and problematic relationship. In all these studies from Calma [3], Kimani [1], Baptista [4], Ismail *et al.* [5], Alam *et al.* [2] and Severinsson [6] and whether in the field of education, engineering and management and nursing and health sciences, there were problems in the practice of postgraduate supervision.

According to Calma [3], there was a dearth of studies describing effective practices in research supervision. With this, he recommended the following research agenda for future studies: (1) best practices in supervision, (2) framework for learning skills by postgraduates, (3) case stories, (4) exploration of the differences between Masters and PhD candidates, between doctorate and PhD, between subject disciplines, between geographical contexts, (5) the effects of culture on supervisory relationship, (6) the effects of supervision on candidates' works, and (7) phenomenological approaches in describing not what supervision is but how it was experienced and what it meant to them. This study contributed in the further studies on research supervision and sought to describe the effective practices of university research supervisors handling postgraduate students in education and health sciences.

Methodology

This descriptive qualitative study sought to understand the effective research supervision practices based on the actual experiences of 10 university research supervisors who were handling postgraduate students in the field of education (n=7) and health sciences (n=3). The only selection criterion was that they experienced supervising postgraduate students in their thesis or dissertation.

An online open-ended questionnaire was created and it underwent content validity. There were a total of 10 questions in the final tool which included profiling questions like: types of the research handled (qualitative, quantitative or mixed), the level of postgraduate students they supervised (master's or doctoral level), their supervisee's research topics, and the preparations they underwent to be research supervisors. The rest of the questions pertain to how they practice research supervision: the platforms they use in advising the postgraduate students (*i.e.* face to face, via email, etc.), ways of monitoring their progress, ways of handling those who had difficulty coping with research work, and ways of handling conflicts with them. They were also asked about the effective and ineffective strategies in supervising postgraduate students and about the qualities of research supervisors that would enable postgraduate students finish their thesis/dissertation.

Each of the supervisors received the link of the online open-ended questionnaire either from the researcher or from a colleague who were requested to forward the same link to them. There were a total of 10 research supervisors who voluntarily consented and accomplished the questionnaire with the assurance that the data to be gathered would be strictly confidential and would be used for this study alone.

Results and Discussion

Evidence of expertise of the research supervisors includes the fact that all had their doctorate degrees except one, who was a PhD candidate. Four of those with doctorate degrees finished them abroad. They had not only been handling research supervisees in the postgraduates program in education and health professions education but they were also conducting their own researches themselves. Eight out of 10 participants were teaching at the master's program and half of them were also teaching in the doctorate program. They dealt with all types of researches (*i.e.* qualitative, quantitative and mixed). A few had experimental, non-experimental and descriptive researches. The research topics of their supervisees were on educational research, health professions education, program evaluation, early childhood education, reading and literacy education, English literature, language policy and cultural studies (Table 1).

Table 1. *Profile of research supervisors*

Profile of Research Supervisors		Frequency
Programs Handled	Masters	8
	Doctorate	5
Types of Researches Conducted	Qualitative	8
	Quantitative	7
	Mixed method	5
	Experimental	1
	Non-experimental	1
	Descriptive	1
Research Topics	Educational Research	2
	Health professions education	1
	Program evaluation	1
	Early childhood education	1
	Reading & Literacy education	4
	World English, English Literature, Politics of English	4
	Language attitudes & language policy	2
	Cultural studies	2

Six out of ten respondents believed that having earned their master's and/or doctorate degrees and having actual continuing researches made them fit for the role as research supervisors. Some mentioned about having their involvements as research panel, reader, or critic and having graduate work. One respondent shared that there was no preparation done from the institution where she belonged but her personal decision to pursue further studies in education research made her fit for the role. Still another respondent said that his institution required for an extensive experience in publication and research. Policies and guidelines on research supervision should be in place in order to institutionalise it [3]. These include the guidelines on the appointment of supervisors and mode of supervision *i.e.* single or joint/co-supervision for proper and suitable allocation of postgraduate students [1]. It was also good to note that a research supervisor experienced being mentored by senior professors and learned from the protocols laid down by her department, the college and the university governing postgraduate studies, advising and supervision. Still another considered attending continuing professional development programs and courses prepared her for the task. Research supervisors should also be equipped for this position not only in managing the students but also in research skills [3]. Another particular response distinct from the others was that as research supervisors they were obliged to be teachers/advisers in research courses.

Data from the responses of the 10 research supervisors were grouped into themes and analyzed according to the conceptual models of effective research supervision of Lee [7] namely: functional model, relationship development: qualities model, emancipation: a mentoring process, enculturation model, and critical thinking model. The **functional model** has the rational movement through task as its most prominent activity. Postgraduate students are lead to be organized and to be obedient. Supervisors in this model need to have directing and project management skills [7]. Effective and infective research supervision practices categorized under the functional model were further grouped into subcategories namely: communication, feedback, monitoring, managing, planning and research process based on what Lee [7] listed on her study as part of the supervisory functions which included: meetings timetabled, feedback on early writing, monitor progress/project, management/time management, planning for the unexpected, negotiating resources, introductions to colleague, etc. These are similar findings based on the responses of the research supervisors. Supervisors should be in constant and regular communication with their supervisees and should use any platforms to do so in order for them to have their consultations. Creating a communication platform is important because postgraduate students recognize having lack of interaction and poor communication with supervisors not being available as a common concern [1,2,5,8]. Giving prompt and timely feedback is one of the characteristics of an

ideal doctoral supervisor alongside with availability, in-depth scientific knowledge, openness, empathy and social skills, and certain number of PhD students handled [4]. It is also critical in quality postgraduate supervision that students are reminded to meet the deadlines. They are also provided direction in their research work until its completion [1]. Creating communication platform and providing timely feedback are also related to monitoring the postgraduate students' progress in their research work. Monitoring is part of the follow-up mechanisms for supervisors to give feedback to the students especially in the submission of individual chapters [9] and the completion of timeframe [1]. Monitoring should be on-going with the research supervisors holding a degree of responsibility and accountability for students to reach the expected outcomes [8]. Management skills refer to the utilization of resources to meet the desired outcomes [3] and also include managing expectations and allocating responsibilities [7]. Based on the findings of this study, management would also include breaking research tasks into doable tasks, putting structure in research advising, encouraging them to attend seminars and workshops and referring them to resource persons. These were not found in other studies. Another effective practice is for research supervisors to create a work plan or set a timeline together with their supervisees so that they could both adhere to the schedule until the research work of the students has been completed. Revisiting the timelines because sometimes plans do not push through is important so adaptability is also one characteristic for an effective research supervisor in order to adjust to changing priorities [3]. Establishing a research plan is one of the core practices of good doctoral supervision of James & Baldwin (1999) as stated by Ismail *et al.* [5] including the identification of right partnership, assessment of students' needs, and meeting agreed expectations. Included under the functional model is the provision of the assistance of the research supervisors in the actual research-related matters *i.e.* review of related literature, methodology, data analysis, dissemination, etc. For the **emancipation model**, mentoring and supporting the postgraduate students in constructing knowledge are its prominent activities wherein supervisors need to learn to facilitate, analyze and reflect for postgraduate students to be aware of personal growth and reframe their knowledge [7]. Practices under emancipation model were further categorized into mentoring and facilitation. Perceptions of postgraduate students on their supervisors' mentoring skills were determined by Arabaci and Ersozlu [10] using the Mentoring Competence of Supervisors (MCS) scale. Items with mean ratings above 4.00 based on their findings include the following: "My supervisor: adopts a friendly approach towards me; is my greatest supporter in my work; guides me effectively in my work; sets an exemplary model for me; evaluates my

work objectively; forwards me to people whom I can get help from when he is unable to do so; shares his experiences with me; helps me expand my vision and establish my goals; provides positive and constructive criticism; and I am very glad to be working with my supervisor." Two of these items in the MCS scale were also part of the responses of the research supervisors particularly referring the supervisees to experts/resource persons and sharing personal experiences with them. Aside from these, findings for mentoring that were not found in other studies include listening to the students, thinking of their well-being and starting with students' preference in setting the work plan. Under facilitation, research supervisors are also expected to have dialogues with their supervisees, allowing them to decide on their own and asking their accountability. In the **relationship development model**, the qualities of effective and ineffective supervisors are listed. Supervisors draw out from their experiences to lead the student to personal awareness and emotional intelligence towards successful completion [7]. Good qualities of an effective research supervisor include being patient, open-minded, nurturing, motivating, encouraging, compassionate, persevering, diligent and supportive. They should also be firm, calm but strict and tactful. These qualities are related more to the emancipation/mentoring tasks. But for supervisory functions, supervisors should be available, experienced, competent, committed, systematic, realistic and not demanding. Evaluation and challenge are prominent activities in the **critical thinking model**. In this model, postgraduate students are lead to constant inquiry [7]. Research supervisors should respect supervisees as thinkers and give them opportunities to think and give feedback critically. Role modelling and apprenticeship are what makes the enculturation model. Supervisors should know how to diagnose deficiencies to be remedied [7]. **Enculturation model** practices were divided into diagnosing deficiencies and remediation and apprenticeship/role modelling. Research supervisors should discuss with their supervisees their problems and difficulties and serve as role models who are professional, respectful, and optimistic towards their supervisees.

Ineffective research supervision practices across all the models include not being available for consultations, having no open communication, not reading supervisee's work, imposing solutions to their supervisees, lack of close monitoring, pressuring supervisees, not taking advising duties professionally, assuming that supervisees know what to do and letting them be, scolding and rebuking them, showing anger and disappointment, and giving threats (Tables 2 and 3).

Table 2. *Effective and Ineffective Research Supervision Practices Part 1 (based on Functional and Emancipation Models)*

Conceptual Models	Effective Practices	Ineffective Practices
Functional (Directing, project management skills, organization)		
Communication	• Having constant communication with supervisees through emails, SMS, calls, messenger, Skype, etc. • Setting up regular face to face meetings and consultations	• Not being available for consultations • Having no open communication
Feedback	• Reading the supervisees' work • Providing detailed, prompt, regular, and written or verbal feedback	• Not reading supervisee's work • Imposing solutions to their supervisees
Monitoring	• Conducting regular close monitoring • Asking supervisees about progress of their work and their stage in research process	• Lack of close monitoring • Letting a student go on unsupervised on his/her thesis • Pressuring supervisees
Managing	• Breaking research tasks into more manageable and doable tasks • Putting structure in the advising • Encouraging supervisees to attend seminars and workshops	• Not taking advising duties professionally • Leaving the students to fend off for him/herself in his/her research
Planning	• Setting timelines together • Adopting a plan of action with fixed timelines, adhering to the schedule and revisiting these timelines • Following a work plan set at the beginning which forms a reference to the work to be completed	
Research process-related matters	• Providing them with specific reading materials, relevant journal articles and references • Providing them guidance regarding methodology • Encouraging them to read more related literature • Encouraging them to keep on trying to write • Teaching them how to determine sample size and appropriate statistical tool • Leading them to the software to use • Asking supervisees to submit outlines of their chapters online • Helping them finish and publish the supervisee's work	• Not giving specific feedback on research design
Emancipation (Mentoring, facilitation, analysis and reflection)		
Mentoring	• Explicitly asking ways wherein the supervisors could help and actually give help • Starting with what supervisees prefer to do and moving from there • Knowing the supervisees personally and the aspects of their life that influence their research work • Thinking of the well-being of supervisees • Encouraging them and guiding them • Listening to their side • Referring supervisees to experts/resource persons • Sharing the supervisors' personal experiences with difficulties • Teaching them how to determine sample size and appropriate statistical tool • Leading them to the software to use • Asking supervisees to submit outlines of their chapters online • Helping them finish and publish the supervisee's work	
Facilitation	• Having discussion and dialogue with supervisees • Giving them time to be themselves • Spending time with supervisees • Giving supervisees advices but letting them decide • Asking for the supervisee's accountability	• Assuming that supervisees know what to do and letting them be

Table 3. *Effective and Ineffective Research Supervision Practices Part 2(based on Relationship Development, Critical Thinking and Enculturation Models)*

Conceptual Models	Effective Practices	Ineffective Practices
Relationship Development (Qualities, supervision according to experience, emotional intelligence)		
Qualities of Research Supervisors	• Patient • Open-minded • Nurturing • Motivating/ Encouraging • Compassionate • Persevering • Diligent • Supportive • Firm • Tactful • Calm but strict • Available • Experienced • Competent • Committed • Systematic • Realistic • Not demanding	• Scolding and rebuking the supervisees • Showing anger • Showing much disappointment • Giving threats • Reprimanding
Critical Thinking (Evaluation, challenge, constant inquiry)		
Evaluation/ Constant inquiry	• Respecting supervisees as thinkers and researchers • Conducting mini-research forums for more than one advisee to present and critique outputs • Engaging in debate with supervisees • Responding to critiques • Give critical feedback • Practicing diplomacy • Showing them why another idea is better	
Enculturation (Diagnosis of deficiencies to be remedied; apprenticeship, role modelling)		
Diagnosing deficiencies and remediation	• Providing guidance on identified problems where they need help • Discussing the difficulties and obstacles of the supervisees • Determining the source of their problem • Disengaging and opting for supervisees to have another adviser • Referring supervisees to experts/resource persons • Sharing the supervisors' personal experiences with difficulties • Teaching them how to determine sample size and appropriate statistical tool • Leading them to the software to use • Asking supervisees to submit outlines of their chapters online • Helping them finish and publish the supervisee's work	
Apprenticeship/Role modelling	• Setting a professional but caring tone in the relationship • Showing respect to supervisees • Being professional • Building deeper relationship with supervisees • Knowledgeable of the subject of the research • Model researcher • Having positive attitude • Persistent in close monitoring • Demonstrating high emotional quotient (EQ) • Helpful when needed by students • Spending time with supervisees • Giving supervisees advices but letting them decide • Asking for the supervisee's accountability	

Conclusion

Postgraduate supervision is a complex teaching style which requires the interaction between supervisors and their supervisees. In this interaction process, problems were recognized which include the supervisor's lack of expertise and unavailability, mismatch between supervisors and supervisees, poor resource allocation, lack of communication, power conflicts, etc. These issues were recognized across the fields of education, engineering, management and health sciences. This study sought to describe the effective practices of research supervisors handling postgraduate students and contribute in the dearth of literature on research supervision.

Unlike in the reported lack of expertise among research supervisors, there was evidence of expertise among the respondents in the current study considering their doctorate degrees, their academic positions in postgraduate programs, and researches and publications they were involved in. As for the effective practices of these research supervisors, findings using the conceptual models of effective research supervision as the framework revealed that majority of the practices fall under the function model which include having constant communication with supervisees, providing prompt and regular feedback, conducting regular close monitoring, and adopting a work plan and timelines. Distinct from this current study are the findings on breaking research tasks into doable tasks, putting structure in research advising and encouraging supervisees to attend seminars and workshops and the assistance to research-related tasks. Practices under emancipation model especially mentoring were similar to the previous studies specifically referring the supervisees to resource persons and sharing personal experiences with them. Distinct to the current study were having dialogues with supervisees. In the relationship development model, the listed qualities of research supervisors were partly for them to be effective mentors and the rest are for them to be effective in their supervisory functions. Findings from both the critical thinking model and enculturation model reveal that research supervisors should respect supervisees and give them opportunities to think critically and they should discuss with their supervisees their problems and difficulties and serve as professional role models.

The research supervisors mentioned the effective practices but also recognized ineffective ones like not being available for consultations, having no open communications with supervisees, not reading the supervisee's work, imposing solutions to their supervisees, pressuring them, and not taking advising duties professionally.

Acknowledgment

References

1. Kimani E. (2014) Challenges in quality control for postgraduate supervision. International Journal of Humanities Social Sciences and Education 1(9):63-70.
2. Alam F, Alam Q, Rasul MG. (2013) A pilot study on postgraduate supervision. Procedia Engineering 875-881.
3. Calma A. (2007) Postgraduate supervision in the Philippines: Setting the research agenda. The Asia-Pacific Education Researcher 16(1):91-100.
4. Baptista A. (2015) Mature students' voices on the ideal and the reality of doctoral supervisor's role and practice. Procedia Social and Behavioral Sciences 1544-1551.
5. Ismail HM, Majid FA, Ismail IS. (2013) "It's complicated" relationship: Research students' perspective on doctoral supervision. Procedia Social and Behavioral Sciences 165-170.
6. Severinsson E. (2014) Rights and responsibilities in research supervision: Research supervision. Nursing and Health Sciences 1-6.
7. Lee A. (2007) Developing effective supervisors: Concepts of research supervision. South African Journal of Higher Education 680-693.
8. Heyns T, Bresser P, Buys T, et al. (2019) Twelve tips for supervisors to move towards person-centered research supervision in health care sciences. Medical Teacher 1-6.
9. Massyn L. (2018) Enhancing completion rates of mini-dissertations for a professional master's degree: An integrated approach. The International Journal of Management Education 114-120.
10. Arabaci IB, Ersozlu A. (2010) Postgraduate students' perceptions of their supervisors' mentoring skills (Gaziosmanpasa University example). Procedia Social and Behavioral Sciences 4234-4238.