

PhD Students' Experiences of Thesis Supervision: 'Management' as Acceptance and Strategy for Action

Steven Eric Krauss* and Ismi Arif Ismail

*Department of Professional Development and Continuing Education,
Faculty of Educational Studies, Universiti Putra Malaysia,
43400 UPM, Serdang, Selangor, Malaysia*

**E-mail: abd_lateef@hotmail.com*

ABSTRACT

Relationships with supervisors are regarded by graduate students the world over as the most important aspect affecting the quality of their overall university research experience. With the global increase in attrition rates of graduate students, much research is being conducted on understanding the nature of supervisory relationships in an attempt to develop ways of reducing attrition and improving PhD students' and supervisors' experiences of the PhD process. Despite this trend, from the perspective of graduate students, managing supervisory relationships is a topic that has received only scant coverage in the extensive literature on graduate supervision. In response to this gap, eighteen students from diverse backgrounds studying at one Malaysian university were interviewed using a combination of in-depth, one-on-one interviews, and focus group discussions. The results illuminated the central theme of 'management' of the supervisory relationship and included both management of self and supervisor. Managing the supervisory experience was further reduced to two streams: 1) *acceptance* of the situation, and 2) *responding proactively* to the situation so as to optimize the PhD research experience. The findings raise several issues related to the role of managing one's experience in the context of professional development at the PhD level.

Keywords: Experience, management, PhD students, thesis supervision

INTRODUCTION

Completing a PhD is a process that, like many others, is dependent on a close, working relationship between the student and his or her supervisor. Unlike other professional or educational relationships, however, the PhD supervisory relationship can often make or break one's success. Many authors on this subject have indicated that the quality of the student/supervisor relationship is vital to the PhD process and often pointed to as the most important factor in whether or not students make it through the process (Zainal Abiddin, 2007). With the current negative trends in postgraduate

attrition rates occurring globally, there has been a plethora of studies looking into the PhD supervisory relationship from a variety of angles (Burgess *et al.*, 1993; Moses, 1984; Rudd, 1985; Whittle, 1994).

From what students and other researchers claim, the heart of a successful supervision process is the quality of the relationship between student and supervisor (Eggleston and Delamont, 1983; Seagram, Gould and Pyke, 1998; Knowles, 1999; Grant and Graham, 1999; Dinham and Scott, 1999). Poor interpersonal relationships and lack of rapport between student and supervisor are the reasons most often given for problems

Received: 30 September 2009

Accepted: 20 January 2010

*Corresponding Author

encountered in the PhD supervisory process (Hill *et al.*, 1994; McAleese and Welsh, 1983). According to Armstrong (2004, p. 600),

Rarely is consideration given to preferences for the degree of structure in the process, for direction versus freedom in supervisory styles, or for other relationship variables that might be important for effective supervision. Yet relationships with supervisors are also known to be related to the satisfaction and productivity that students find in their supervision, are known to be critical for successful completion, and are regarded by most graduate students as the single most important aspect of the quality of their research experience.

Armstrong (2004) further cites Blumberg (1978), who suggested that trust, warmth, and honest collaboration are key elements in successful supervision. One study even indicated that satisfaction with supervision highly correlated with the students' perceptions of the supervisory relationships than with perceived expertise (Heppner and Handley, 1981).

PROBLEM STATEMENT

The growing amount of evidence of the importance of the interpersonal aspects of PhD supervision is undeniable. Despite the number of studies that have been conducted and the consensus reached by researchers, important gaps still remain in relation to our understanding of the nature of these interpersonal relationships, particularly among postgraduate students from diverse, non-Western backgrounds. For one, there is still a lack of understanding as to how students in particular 'deal with' or strategize to optimize their supervisory relationships. To date, most studies have concentrated on identifying the elements of successful supervisory relationships (e.g. Moses, 1984), while some have even

developed theoretical models in relation to different aspects of the process (e.g. Gatfield, 2005; Styles and Radloff, 2001; Gurr, 2001). Despite this important work, understanding how supervisory relationships are accepted and acted upon by students is an area worthy of more serious research efforts, to extend our understanding of this unique professional development experience.

RESEARCH QUESTION

Typically, the 'nature' of any process, including the supervisory process, refers to a descriptive, in-depth investigation to pull out, from the experiences of the actors themselves, what is happening within and among peoples' daily experiences. Such inquiry arguably requires a qualitative, descriptive approach which is capable of penetrating the hearts and minds of the target group.

The current study aimed to contribute to the ongoing investigation in this area by attempting to understand the nature of the PhD supervisory experience, from the words and stories of PhD students themselves, using a qualitative approach. Using the plethora of prior studies on PhD supervision to guide the process of conceptualizing and formulating the research questions, we attempted to shed light on this issue by focusing on an area related to interpersonal relations between supervisors and their PhD students to arrive at a deeper understanding of the nature of the PhD supervisory relationship from the perspective of graduate students.

The current paper reports on the results from one of the two main research questions posed at the outset of the current study, namely: What is the nature of PhD supervisory relationships at the University under study?

METHODS

Situating Ourselves as Researchers

The findings reported in this paper are based on a small-scale study covering one major public university in Malaysia. As lecturers and PhD

supervisors at this university, we were spurred on to conduct the study due to our direct experiences working with PhD students in the context of post-graduate courses and supervision. In our discussions with students in both formal and informal settings, we became increasingly intrigued by the variety of experiences students were reporting having with their supervisors in the context of their PhD study. From the very positive to the extremely negative, the students' range of experiences really struck us. In addition, our colleagues were also sharing a broad range of experiences as well as what could be called different philosophical and functional approaches to working with their students. As young academicians who ourselves are only a few years removed from PhD study, we thought that this issue needed to be examined more closely.

Although perhaps the study could have included 'both sides of the story' so to speak, we chose to begin with the stories of the students, and to attempt to understand their experiences in a more structured manner using a contextual, descriptive, qualitative methodology. Following an in-depth review of the literature, we found that although much research has been conducted on PhD supervision, certain gaps remain related to understanding the nature of these interpersonal relationships and supervisory styles (Armstrong, 2004), particularly in non-Western contexts. Thus, we chose to undertake a study which would shed light on the nature of the PhD supervisory relationship in an attempt to respond to this call.

Participants

Participants included 18 PhD students from different backgrounds and faculties throughout the University. The majority of the participants were chosen because they were late in their PhD programme, i.e. 5th semester or more, as it was assumed that those who had more established relationships with their supervisors would be able to provide more in-depth data. However, a small number (n = 4) of the participants selected were only in their second or third semester, for

the sake of exploring if there were any major differences in their experiences with the others. One participant was a recent graduate (less than six months).

The students were purposefully selected using a snowballing approach. As a whole, the student participants involved in the study came from a variety of faculties including Engineering, Modern Language and Communications, Human Ecology, Medicine, Agriculture and Science. Half of the students involved in the study (n = 9) were international students, while the other half comprised of local Malaysians. Of the international students, four were from Iran, followed by three from Sudan, one from Sri Lanka and another one from Yemen. Eight of the students were males and ten were females. The majority of the students were full-time students. The age range of the participants was between 32 and 48 years.

Data Collection

Fifteen of the students participated in three focus groups (five in each group), while three semi-structured, face-to-face, in-depth interviews were conducted to triangulate the focus group data. The researchers added in-depth interviews to the three focus groups to ensure that an adequate level of depth would be achieved from the respondents. As lecturers at the university where the study took place, trustworthiness was established through our relationships with several students. The majority of the participants were eager to participate in the study as it was rather rare that they were given the opportunity to express their feelings and experiences related to their PhD experience. Thus, when the students were approached to participate in the focus groups or in-depth interviews, they were comfortable and willing to provide information about their experiences.

An interview guide, consisting of a series of eight open-ended questions, was designed and used to help the students describe the nature of their relationships with their supervisors. Each interview lasted approximately 1 to 1.5 hours. The interview followed the flow dictated by the

student(s), though the respondents eventually answered all of the questions on the protocol. In this way, the interviews were informant-directed in that they started at points which respondents wished to discuss.

Probes and prompts were used judiciously to provide a more open-ended interview feel. This was necessary, as the topic proved to be personal and even emotional at times, and we wanted to allow the students flexibility and freedom in how they responded. In addition, during the focus groups, the respondents found the issues highly engaging and it created a lively discussion that we felt the need to preserve and even encourage, as it resulted in richer data. It was often a fine line between allowing the respondents to openly discuss the questions posed and having to re-direct them to keep them on topic. In order to ensure an accurate transcription of the data, interviews were tape-recorded and transcribed with the permission of each participant.

Data Analysis

During the period of data collection, we read the transcripts carefully, trying to 'immerse' ourselves in the data (D'Cruz, 2002). Although observation was not a formal method used in the current study, we found that being in the research setting of the university every day helped to better understand the issues at play. In this manner, methodological rigor was achieved through what could be considered as prolonged engagement (Lincoln and Guba, 1985). Interacting with students on a regular basis both formally and informally, discussing the relevant issues with colleagues as well as supervising our own students allowed us to feel highly immersed in the research setting, making the research questions come alive. Such immersion helped us to identify themes, categories, and patterns emerging from the data (Marshall and Rossman, 1999).

In line with the grounded theory approach, the constant comparative method was employed to analyze the data (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Research questions

were used as the focus in forming the categories. The transcripts from the interviews were coded, and used to analyze and generate themes and conclusions. In this study, open coding followed by axial and selective coding was employed to arrive at our themes. NVIVO 8 was used to manage and analyze the interview data.

Data analysis of the current study was a highly evolving process that underwent several iterations. As with any qualitative study, the research as well as interview questions evolved during the process of data collection and analysis and the first two focus groups were re-analyzed following a reformulation of the research questions early on in the study resulting from the emerging findings. All the open codes were first examined to find whether individual codes could be combined into higher conceptual categories as a part of the axial coding process. Once these higher conceptual categories were developed, they were then examined for their properties and dimensions (Rausch and Hamilton, 2006). Through the process of selective coding, the axial categories were then analyzed to investigate their relationships to each other across the student interviews. All the three coding stages helped to arrive at a set of themes to describe the nature of the experience the students were having, focusing on the overall storyline.

Reliability and Validity

In addition to triangulating our data collection methods using interviews and focus groups, prolonged engagement in the setting, member checking, and peer review were used to ensure credibility and trustworthiness of the data (Creswell, 2007). Peer review, in particular, was used at length due to three main reasons: 1) the study took place at the same university where we worked; 2) colleagues at our workplace were familiar with not only the students participating in the study but also the issues being explored; and 3) several colleagues in the same department were qualitative researchers. These factors combined helped us to use colleagues as a sounding board to get their continuous feedback

and opinion on the methods used, preliminary findings, interview protocol, and the like.

FINDINGS

Although the initial study questions attempted to address how students experienced their supervisory relationships, i.e. the nature of the experience, the findings pointed to more than just a description of their everyday experiences and the meaning behind them. Rather, the resulting themes illuminated the experience for the students as one of 'managing' one's PhD supervisory relationship experience, which includes managing themselves and their supervisors. Managing their supervisory experience could further be understood according to two general streams: 1) accepting the situation presented to them; and 2) responding to the situation in order to optimize the experience and complete the process.

The way that many of the PhD students described it, although it was recognized that the quality of the supervisory relationship is the most critical element in the process, both parties risk approaching the process seemingly by "talking past each other, i.e. talking without understanding the other's point of view, with some serious consequences" (Grant and Graham, 1999). Each one has his or her eyes fixed on the goal, which is completion of the process, but in so doing, they take for granted or do not fully invest in the most important aspect which is the process itself. As such, the process is left 'un-nurtured' and it becomes highly mechanical and task-oriented rather than developmental. This is an important point for it is the process which is often highlighted as the key to successful completion of the PhD; yet in practice, the process becomes almost secondary, put on the back burner while the focus is placed on fulfilling the tasks required to reach the end goal.

'Management' as a Two-Part Process

The choice of the word 'management' to describe the nature of the relationship from the

eyes of the students implies a simultaneously occurring two-part process. Management, or managing, conveys action and is defined as an individual's attempt to handle, direct, make and keep compliant, treat with care, exercise direction, work upon or try to alter for a purpose, and succeed in accomplishing. All the terms used to define the word indicate some initiatives taken by the individual to affect his or her situation in some ways. Before any managerial action can be taken, however, there must be some resolutions or acknowledgements of the situation in which one has been put. In other words, there must be 'something' or 'someone' to manage. Management, therefore, includes two aspects – an acceptance that there is a situation to be managed, followed by actual strategies and efforts to handle, direct, exercise direction, and the like. Managing a supervisory relationship thus implies managing people – the student himself or herself and the supervisor – as well as any of the other controllable elements related to the supervisory experience.

In the context of the current study, the first part of the students' management process is that there is a certain level of acceptance of the situation, no matter how negative it might be perceived. Even among students having negative relations with their supervisors, we found that acceptance was an important theme throughout. For example, Allison, a foreign student who described her experience as, "It was not a good experience for me. In my whole life, I had many bad experiences, but I think it was the worst," changed her supervisor just before the interview for this study took place. Despite her negative experience, prior to 'giving up' on the relationship, she described her acceptance of it:

Our relationship, most of the time -- she was the boss, the leader of many big projects, so she should order everything -- yes, I accepted it, maybe this was the culture.... So I accepted it, that maybe she wanted to be like that...

Another respondent, Harry, who described his PhD supervisory experience as very positive, on the other hand, and who had just completed his programme at the time of the interview commented:

... They (supervisory committee) commented but I accepted their comments. I got to accept because these are the people who are going to get me through. So whatever comments, it's only to help me survive my viva. It's as if they help me to survive ... so I accepted...

Another foreign student, Matthew, also spoke of the need for acceptance:

...Acceptance of the situation of my supervisor for me is the best way, because I have accepted that the behaviour of my supervisor is like this and I don't force myself to be angry or to be worried.

Jennifer, a local teacher and part-time PhD student spoke about not only accepting the fact that students cannot always have what they want in a supervisor, but must also be flexible and adjusted to their situation:

Because we want him to have the expert knowledge, we want to have this, we want to have that, but...you have to adjust. You have to play that kind of thing, you know...we don't have the choice many times... to suit my style...to get him to be my supervisor. But along the line, we have to adjust.

Management, as a two-part process, also includes being proactive and even strategic in order to cope with the situation. It reflects the students' efforts to maintain some level of control of their own situation and fate, despite the difficulties they face. This became evident when these students discussed ways of getting through the process in order to achieve their overall

goal of completing the PhD. Coupled with acceptance, management in this context refers to the efforts the students make to not merely accept the situation but to also devise a variety of approaches and techniques for navigating their relationships with their supervisors. Francis, a community health student commented:

We can't close the gap...but what we can do as a supervisor and student sort of adaptation...we have to adapt to the supervisor's rules and regulations and the supervisor has to adapt to us on our weaknesses, our limitations and how we can maximize and enhance... to close the gap...how are we going to link that gap...

This quote by Francis is indicative of the two-part management mentality emphasized above. She mentions that, in her experience, there exists some sort of gap in the relationship which must be adapted to or accepted, followed by a simultaneous attempt to strategize ways of 'closing the gap' or what can the students do to change the situation for the better. Another student, Nancy, in facing the reality of having little time with her supervisor, responded with a strategy of her own:

But I'm doing, for example, actually with the three of them (i.e. committee members) I know the one supervisor is so busy I can only see him for ten or fifteen minutes, that's the most time I can meet him. But I try to be ready with everything. At least for 15 minutes I can have a good discussion. Or at least, maybe I email him before that's what I'm doing to get him to at least criticize my writing, but it's not easy.

As highlighted above, Nancy's approach to management of the relationship included the important element of managing herself as well as doing her best to manage her supervisor/co-supervisors. By managing her own time and work so as to maximize her time with

supervisors, she prepared herself by being 'ready with everything,' by being proactive in emailing ahead of time. These are some examples of how graduate students self-manage as a key element in the overall management process.

Allison spoke about working through the difficulties and trying her best to impress the supervisor through producing high-quality work, as another example of self-management:

I think I tried my best because during the last year, I didn't sleep well -- maybe every night two to three hours. So I tried to work hard, may be harder than possible. So I pressed myself to do whatever she wanted....

And Katherine explicitly mentioned how her supervisor's advice helped her to realize the importance of managing:

Prof. Ramos tells me that, as a student you should know how to manage your supervisor. Don't bring keropok (Malaysian delicacy), don't bring fruits for me, don't bring gifts for me, but bring your thesis, bring your chapters... that one I need...

Jennifer added the importance of making a commitment to the relationship by being proactive in understanding the supervisor's background and schedule as an approach to being strategic in managing the relationship:

If you tell the person how you want the relationship to be with your supervisory, you have to make an effort. You have to see his time, you have to see his schedule, you have to understand a little bit of his background, you have to understand...

The students' responses to the situation and their efforts to make the relationship work took on many forms, but there was a common need to adapt to the situation through management strategies and self-management efforts which

followed their personal level of acceptance of the nature of the relationship with the supervisor.

DISCUSSION AND CONCLUSIONS

The research question evolved during the course of the study to the extent that by the end of the study, the original question focusing on understanding the nature of the relationship according to personality and work style, for example were not the focal issue for the students. This is in line with the qualitative research process which calls for the researcher to be open and flexible to the reality as experienced by the respondents (Strauss and Corbin, 1998). When queried specifically about concepts such as 'work style,' 'personality,' 'professionalism' and others during the interviews, the respondents found it difficult to locate the concepts within the context of their own experiences, and often resorted to describing those aspects of the relationship which were simply the most significant to them. This is one reason, perhaps, why the interview questions focusing on the nature of the relationship evolved or resulted in students' discussing their experiences from the perspective of management of the relationship.

Of the numerous studies investigating PhD supervision, only a few have addressed the issue of 'management' at length, and how students not only 'do it' but also how they experience it. Styles and Radloff (2001), in their study on self-regulated learning in PhD supervision, put forth a four-part model for supervision which includes 'Management Strategies,' as one of the major components of the process. The authors describe it as "organisation of self and task, and selection and use of strategies and relevant resources at optimal stages of the research" (p. 97). Apart from this, however, they do not elaborate on the finer aspects of what management means to students or supervisors. Grant and Graham (1999) describe the supervisory relationship as a 'pedagogical power relation' where both supervisor and student are both capable of acting to change the relationship dynamic. They assert that the supervisory relationship is one that allows for the empowerment of students.

They emphasize the fact that despite students' institutional disempowerment, students do indeed have the ability to manage themselves and their supervisors to facilitate the pedagogical process in spite of some supervisors' unwillingness to adapt to the needs of students. The findings of the current study therefore support the assertion that students can empower themselves to be better managers of the supervisory relationship. However, this may be less realistic in certain cases as not all relationships and certainly not all supervisors are indeed 'manageable' by students, such as in the example of Allison. This is supported by Grant and Graham's (1999) experiences in conducting university-based programmes on reconstructing supervision for both academic staff and students, where the authors cite supervisor resistance to attending the program as a barrier to changes in their supervision approach.

The current study did not target the PhD process as a whole, but rather focused on the qualities and strategies of the supervisory relationship in particular. Management, as a key theme, can be due to contextual factors. There are several possible explanations for this. For one, as half of the respondents were comprised of foreign students, it is possible that much of the management employed was in response to the fact that so much of the experience itself was new and in many ways – foreign. Beginning with the students' expectations themselves, of which many said they had no idea what to expect, the adjustment process to a new setting and new academic environment could greatly shape the overall experience for the students, including their supervisory relationships.

In reflecting on the findings as they relate to our own experiences as supervisors, we can identify much with Styles and Radloff (2001) when they write that in the context of post-graduate supervision, both supervisor and student are involved in self-regulatory processes. In the current study, although not one of the explicit objectives at the outset, the findings expound on Styles and Radloff's synergistic model of supervision by providing

a greater level of understanding as to why management of the supervisory relationship is a major element within this unique professional relationship. Too often, perhaps due to cultural differences as elaborated on by McClure (2005), students enter into the PhD process assuming that management is entirely the responsibility of the supervisor. Perhaps only by necessity, many students over the course of their study realize that to be successful in forging a positive, working relationship and thus increasing their chances of not only finishing the process but making their time together tolerable and even enjoyable, they need to take on the responsibility of being proactive in managing their supervisory relationships to the extent allowed. This is a deeply reflective process for the students as they often find themselves spending as much time and mental energy on relationship management as on their research and coursework.

Like most qualitative research studies, this study has certain limitations particularly in regard to generalizability, as the sample was purposively selected and small. However, in complementing previous studies, particularly McClure's (2005) and others, the authors found certain thematic consistencies across different settings, despite the limitations. Although the study questions and samples differed in a number of ways, some similarities could be seen such as in the students' need to develop a high level of independence in order to solve their research problems; a good supervisor is one who provides a high level of guidance to 'keep students on track'; from the process, students develop a deepened level of self-awareness concerning their personal strengths and limitations; and tensions in experiences of the student/supervisory relationship may be understood in terms of unrealistic or unfulfilled expectations being brought to the new study context but grounded in the home culture (McClure, 2005). Though not directly dealt with in this paper nor the focus of the present study per se, the above themes are consistent with the findings of the present study.

REFERENCES

- Armstrong, S.J. (2004). The impact of supervisors' cognitive styles on the quality of research supervision in management education. *British Journal of Educational Psychology*, 74, 599-616.
- Blumberg, A. (1978). Supervision and interpersonal intervention. *Journal of Classroom Interaction*, 13(1), 23-32.
- Burgess, R.G., Hogan, J.V., Pole, C.J. and Sanders, L. (1993). Postgraduate research training in the United Kingdom (Coventry, Centre for Educational Development, Appraisal and Research).
- Creswell, J. (2007). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (2nd edn.). Thousand Oaks CA: Sage.
- D'Cruz, P. (2002). Caregivers' experiences of informal support in the context of HIV/AIDS. *The Qualitative Report*, 7(3). Retrieved on September 3, 2007 from <http://www.nova.edu/ssss/QR/QR7-3/dcruz.html>.
- Dinham, S. and Scott, C. (1999). *The Doctorate: Talking About the Degree*. Sydney, Nepean, Kingswood: University of Western.
- Eggleston, J. and Delamont, S. (1983). Supervision of students for research degrees. Birmingham: BERA.
- Gatfield, T. (2005). An investigation into PhD supervisory management styles: Development of a dynamic conceptual model and its managerial implications. *Journal of Higher Education Policy and Management*, 27(3), 311-325.
- Glaser, B.G. and Strauss, A.I. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine Publishing Company.
- Grant, B. and Graham, A. (1999). Naming the game: Reconstructing graduate supervision. *Teaching in Higher Education*, 4(1) 77-89.
- Gurr, G.M. (2001). Negotiating the "Rackety Bridge" – a dynamic model for aligning supervisory style with research student development. *Higher Education Research & Development*, 20(1) 81-92.
- Heppner, P. and Handley, P. (1981). A study of the interpersonal influence process in supervision. *Journal of Counseling Psychology*, 28(5), 437-444.
- Hill, T., Acker, S. and Black, E. (1994). Research students and their supervisors in Education & Psychology. In R.G. Burgess (Ed.), *Postgraduate education and training in the social sciences* (pp. 53-72). London: Jessica Kingsley.
- Knowles, S. (1999). Feedback on writing in postgraduate supervision: Echoes in response - context, continuity and resonance. In A. Holbrook and S. Johnston (Eds.), *Supervision of postgraduate research in education, Review of Australian Research in Education No. 5* (Australian Association for Research in Education, Coldstream, Vic.).
- Lincoln, Y.S. and Guba, E. (2000). Paradigmatic controversies, contradictions, and emerging confluences. In N.K. Denzin and Y.S. Lincoln (Eds.), *Handbook of qualitative research*, 2, 163-188). Thousand Oaks, CA: Sage.
- Marshall, C. and Rossman, G.B. (1999). *Designing Qualitative Research* (3rd edn.). Thousand Oaks, CA: Sage.
- McAleese, R. and Welsh, J. (1983). The supervision of post-graduate research students. In J.F. Eggleston and S. Delamont (Eds.), *Supervision of students for research degrees* (pp. 13-22). London: Kendall-Dixon.
- McClure, J.W. (2005). Preparing a laboratory-based thesis: Chinese international research students' experiences of supervision. *Teaching in Higher Education*, 10(1), 3-16.
- Moses, I. (1984). *Supervision of Higher Degree Students- Problem Areas and Possible Solutions*. Brisbane: Tertiary Education Institute, University of Queensland.
- Rausch, J.L. and Hamilton, M.W. (2006). Goals and distractions: Explanations of early attrition from traditional university freshmen. *The Qualitative Report*, 11(2), 317-324. Retrieved on March 5, 2008 from <http://www.nova.edu/ssss/QR/QR11-2/rausch.pdf>.
- Rudd, E. (1985). *A New Look at Postgraduate Failure*. Guildford: SRHE & Slough: NFER-Nelson.

- 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.
- Strauss, A. and Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd edn.). Thousand Oaks, CA: Sage.
- Styles, I. and Radloff, A. (2001). The synergistic thesis: Student and supervisor perspectives. *Journal of Further and Higher Education*, 25(1), 97-106.
- Whittle, J. (1994). A model for the management of research degree supervision in the post-1987 university. In O. Zuber-Skerritt and Y. Ryan (Eds.), *Quality in postgraduate education* (pp. 38-50). London: Kogan Page.
- Zainal Abiddin, N. (2007). Challenges in Ph.D studies: The case of arts student. *European Journal of Social Sciences*, 5(2), 83-93.