Alternative approaches to postgraduate supervision: A planning tool to facilitate supervisory processes

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Abstract

Increased demands on academics due to the changing work and higher educational environments challenge traditional approaches to postgraduate supervision. Supervisors often tend to follow the apprenticeship approach uncritically. Supervisors therefore need to be aware of alternative approaches to supervision and of the need for structured planning for the postgraduate supervisory process. A framework for planning for complementary approaches to postgraduate supervision was designed based on the characteristics and benefits of alternative approaches to supervision identified in the literature. This framework or grid helps to plot the roles of supervisors and the processes and activities for students during the course of their postgraduate studies. Application of this grid in planning and the identification of various role players in the supervision process may help to alleviate the pressure placed on individual supervisors. Structured planning within a specific context will contribute to quality, efficiency and sustainability of supervision in the postgraduate process.

INTRODUCTION

The multiple transformations in contemporary society and changes in the conceptualisation of knowledge production have spurred the debate regarding the use of different approaches to postgraduate supervision. Postgraduate qualifications are increasingly valued in the workplace as knowledge is viewed as a resource for organisations to harness to obtain a competitive advantage (Bloland 2005; Harman 2005) – particularly in knowledge-driven economies (Bawa 2007). This perception of intellectual capital currency has brought about credential inflation through the increase in students who enrol for postgraduate studies (Engebretson et al. 2008). As a result there is increased pressure on institutions and on the supervisor workload (Usher 2002). Therefore, the supervisor faces the conundrum of supervising increasing numbers of postgraduate students within challenging and changing higher

education contexts. The aim of this article is to suggest a way of relieving this burden carried mainly by the individual supervisor.

Challenges posed by the current complex research training environment influence the supervision relationship and affect management, research and educational aspects of postgraduate supervision (Lee and Green 2009; Parker 2009). Challenges are related to an increased focus on accountability and completion rates, diversity of postgraduate student populations, modes and context of knowledge production, original contribution of doctoral research, development of generic skills, and ontological development of students. These challenges influence postgraduate supervision, the supervision relationship, the mode of interaction, the postgraduate research process and the outcomes of the qualification obtained (Maxwell and Smyth 2011; Manathunga et al. 2006; McAlpine and Norton 2006; Bloland 2005; Taylor and Beasley 2005).

In spite of these challenges, the individualised traditional apprenticeship approach, inherited from the Oxbridge tradition, is still the most favoured mode for supervision in South Africa and some other developing countries (De Beer and Mason 2009). However, this traditional mode, based on the apprenticeship approach, is increasingly seen as being inappropriate to meet the needs for supervising students for the global era (Dysthe et al. 2006; Bartlett and Mercer 2000). Theoretical perspectives on the pedagogy of supervision further support the move to less individualised practices and more open flexible approaches (Wisker et al. 2007; Manthunga et al. 2006). Clearly there is a need to plan the incorporation of alternative approaches in the supervisory process to address the universal challenges and standards of research education. In the South African higher education context with its limited human and other resources it seems even more pertinent to plan for alternative approaches. While the South African context provides the point of departure, the worldwide challenge of growing numbers of students and the resultant pressure on supervisors is a universal issue. Planning for the process using alternative approaches may provide a way of improving efficiency in a variety of contexts.

The various approaches to supervision have been reported in the literature and provide possibilities for application. The organising principle of this article is reflected in the question: How can we plan and incorporate the alternative approaches to supervision in the postgraduate supervision process to help spread the workload of supervision? The contribution of this article is that it proposes a planning grid that can be used to distribute the traditional tasks of the supervisor among other role players in the supervision process. The grid can also help planners to identify the most appropriate approach within a specific context based on the benefits of alternative supervision approaches as identified in the literature.

In this article we discuss literature related to the characteristics and benefits of alternative supervisory approaches within the changing contexts of higher education institutions (HEIs). We identify guidelines for developing capacity of supervisors regarding alternative approaches to postgraduate supervision. The planning

framework related to postgraduate supervision roles and processes concludes this article.

ALTERNATIVE APPROACHES TO SUPERVISION PRACTICES

As a background and motivation for considering alternative approaches, we explore the current context of supervision. The focus is on the postgraduate supervisor in the higher education environment and on identifying various approaches pursued in various contexts.

Changing contexts and needs

Before we can consider alternatives, the prevalent changing issues that motivate the need for alternative approaches to supervision should be considered. These include issues of diversity and massification in HEIs which increase the complexity of the postgraduate learning and supervisory processes. Supervisors will therefore need to develop new skills to apply holistic and creative approaches to postgraduate supervision (Parker 2009; Engebretson et al. 2008; Usher 2002). The move to sub-specialisation, cross-disciplinarity and interdisciplinary research means that more supervisors have to supervise students – seeking expertise that they do not have. Students are also learning from various sources (Malfroy 2005; Pearson and Kayrooz 2004). Thus, a wider collegial environment may be a more effective space than individual supervision – especially for experienced professionals who may be late entrants into the formal research environment (Malfroy 2005). It therefore seems clear that more equal relations are needed.

Implications of contextual changes manifest in concerns for various issues that influence postgraduate quality (Bawa 2007). The pivotal role of supervision for the successful completion of studies has been noted and increases the pressure on supervisors (Lovitts 2008; Li and Searle 2007; Melin Emilsson and Johnson 2007; Manathunga 2005; Delamont et al. 2004). The increasing workload of supervisors of postgraduate students threatens the quality of research and the training of future researchers (Deucher 2008). Furthermore, within postgraduate supervisory relationships there are issues such as degree of intimacy and asymmetric power relations (Li and Searle 2007; Manathunga 2007) which could influence quality as well as drop-out rates. Flexibility, greater coordination of effort and more explicit allocation of responsibilities are demanded; otherwise individual supervisors will assume the burden of unrealistic student expectations (Pearson and Kayrooz 2004). Harman (2005) noted that an increase in the demand for student registrations may influence the quality of students admitted. The resulting increased pressure may affect the morale of postgraduate supervisors.

Supervisors need to be made more conscious of alternatives when selecting and planning complementary approaches to supervision. As the apprenticeship approach is the style most used in South African universities, it is important to make supervisors aware of alternative approaches. Lee and Green (2009) state that despite increasing

awareness of shared responsibility there seems to be a persistent administrative and conceptual defaulting to the one-to-one relationship. Supervisors tend to supervise the way they were supervised as students. The traditional approach is thus perpetuated uncritically in a relatively un-theorised way (Lee 2009; Bloland 2005; Boud and Lee 2005). Johnson et al. (2000 in Li and Searle 2007, 513) claim that the pedagogic practices of postgraduate education has largely remained unscrutinised. A more considered and theorised position in relation to supervision is therefore needed.

Approaches to supervision

The concepts 'models' and 'approaches' seem to be used interchangeably in literature. While variations exist, we discuss the formal classification of approaches ranging from traditional one-to-one supervision, group supervision and the team/ panel approach. The various approaches that have been reported in the literature (see Delamont et al. 2004) are discussed in terms of characteristics and benefits to inform the design of the planning framework (see Table 1).

Traditional (dyadic) approaches

In the social sciences, postgraduate education is traditionally seen as a dyadic approach to supervision of independent research with the student-supervisor as primary relationship of the learning process (Parker 2009, 43; Malfroy 2005, 165). This approach is criticised for being seen as an individual space based on individual styles and attitudes without accountability, which may cause problems within the context of increasing numbers, distance and diversity (Wisker et al. 2007). These issues are also pertinent within the South African context. Yeatman (1998 in Malfroy 2005) argues that tension in the supervision relationship could be partly due to retaining traditional supervisory practices, which may be inappropriate for current types of postgraduate students.

Manathunga (2005, 17) states that supervision is often seen as a 'private pedagogical space'. This approach is based on the pedagogy of a 'transmissive approach to education' (ibid., 19) where the supervisor is seen as the 'guru with the student tapping into the superior knowledge and expertise of the supervisor'. This approach could lead to problems with differing conceptual understandings or differing expectations (Malfroy 2005, 171). Pearson and Kayrooz (2004, 111) refer to the 'Atlas complex' where the supervisor is expected to be responsible for everything. Moreover, Li and Searle (2007) note that within the traditional mode of supervision there may be issues of power. According to Mackinnon (2004), a paternalistic style of supervision is counterproductive as it prolongs the dependence of the student on the supervisor. There are however also elements of mutual exercise of power and therefore the need for flexibility in the communication styles to suit both the student and the supervisor.

While there is criticism of the traditional approach, the value of the interpersonal aspect should not be overlooked. Authors such as Maxwell and Smyth (2011),

Gardner (2008), Kamler (2008) and Dysthe et al. (2006) have noted the value of the central role of the supervisor as a critical mediator and mentor representing the broader scholarly community and embodying its conventions. At each phase in the process the supervisor has a crucial role to play, which calls for a 'symbiotic orientation towards the maintenance of a cooperative relationship' (Li and Searle 2007, 522). The benefit of having an individual supervisor must not be lost in the quest for alternative approaches to supervision in higher education.

A reason for clinging to the apprenticeship approach could be familiarity with supervisors' experience of this approach and a lack of knowledge of and exposure to other approaches. Supervisors may feel more secure in the 'knownness' of the approach.

Group approaches

The isolation characteristic of the dyadic relationship in the traditional approach (Wisker et al. 2007; Samara 2006) can be circumvented by using group approaches. In her study, Parker (2009) found that there are advantages of the group learning as a supplement to independent supervision. Groups can vary from being a collection of individuals with similar levels of experience to those at varying stages in the research process to being groups of students alone or mixed supervisor-and-student groups (Samara 2006). Wisker et al. (2007) suggest that work-in-progress seminars involving peers encourage weaning of students from supervisors towards creating independence. This reflects a more integrated approach to supervision. Group supervision is also seen as a way of diffusing power and increasing social learning in collaborative and collective environments (McFarlane 2010; Parker 2009; Malfroy 2005).

The broadening of the approaches to supervision has a variety of benefits. In Malfroy's (2005) study on group approaches, students saw the supervisor as being paramount in the process, but they gave equal credit to the influence of the research group. The value of peers over and above the supervisor was also noted by Gardner (2008). Lovitts (2008) found that interacting with peers helped students produce higher quality dissertations. The opening up of supervisory practices into a more collaborative learning environment seemingly helped dissipate some of the tensions and created a strong sense of a community among researchers (Malfroy 2005, 171). Learning through interaction (participatory learning) is valued and facilitated through the group processes, as it involves participation in authentic practice. Meaning that underpins practice is constructed through discussion and shared language within the practice community – this is a social interaction process, as Warhurst (2006) points out. The structure of the group process reported in Malfroy (2005) included a one-to-one follow-up session with the supervisor after a group session to build on the intellectual discussion and to help set a new direction.

Group processes also seem to enhance the enculturation process and help emerging researchers to establish their researcher identity while simultaneously focusing on skill development (Samara 2006). Croussard (2008, 52) notes that

identities are 'performed and contested through discursive practices'. She further states that the opportunities for peer interaction help students engage with each other without the power dynamic inherent in the supervisory role, which helped to increase the students' sense of self. Malfroy found that seminars provided collaborative knowledge-sharing environments that helped lessen uncertainty and confusion and sanctioned academic-intellectual work. This supervisory practice developed the research capacity of both supervisors and students (Malfroy 2005, 177). Guilfoyle (2006) contends that support networks with postgraduate peers contribute towards developing academic networks for professional development. Students gain insights in contributing and interacting; they move away from doing, to reflecting on the thinking behind actions (Malfroy 2005).

Guidance and structure are needed to coordinate activities, as an inexperienced group could be a way of pooling ignorance (Malfroy 2005, 17). Fear of participation may be an issue (Parker 2009) in the group setting, especially in the early stages of the research process. Another problem reported in Parker's study was the domination by strong personalities. In their study Dysthe et al. (2006) found that within group processes, the central role of the supervisor still needs to be noted. The supervision groups in their study operated alongside an individual supervisor process and took the onus off the individual meeting by saving individual supervision time. In addition, the interpersonal relationship and power issues between the supervisor and student were defused (Dysthe et al. 2006, 311). Variations of this approach can be found – for example use of the guardian supervisor (Wisker et al. 2007) to support novice supervisors. It is important to note that although group processes provide benefits, the roles provided by the supervisor may be lost should group processes be employed exclusively.

Team approaches

No one supervisor can be expected to provide all that is needed all the time to different students (Cullen et al. 1994 in Malfroy 2005, 172). Therefore, experienced academics could act as mentors within a supervisory team together with the student(s) and inexperienced academics (Nulty et al. 2009). Some institutions have supervisory teams that build on the strengths and experience of supervisors. Co-supervision is a way of ensuring some shared responsibility for the candidature (Malfroy 2005). Co-supervisory arrangements could include an associate supervisor who is seldom seen by the principal supervisor but who provides very different but complementary support to one where the co-supervisor is present in co-supervisory meetings (Nulty et al. 2009). Interdisciplinary teams are increasingly made up of experts who can best advise the student to produce an output of original, high quality research (Lee 2009). In the team approach, a different but comparable set of skills and knowledge is provided to academics (Malfroy 2005, 169).

The advantages of the team approach include access to a range of supervisors, socialisation of new supervisors for continuity, a more holistic approach to problem solving, less interpersonal issues, and enhanced quality of research (Lee

2009). Croussard (2008) argues that with the increasing expansion of postgraduate provision, approaches that are manageable for all concerned need to be found to sustain student participation. More flexible and productive relationships may emerge and a more equal relationship, recognising the different expertise and interests of all members of the team. This could offset the power relations inherent in postgraduate supervisory relationships (Li and Searle 2007; Manathunga 2007; 2005) as well as the complexity of power in cross-cultural supervisory relationships (Guilfoyle 2006). Different types of qualifications influence supervision (Lee 1997 in Malfroy 2005) and provide opportunities for innovative and more effectively negotiated practices of supervision. The changing context of supervision in HEIs will mean that supervisors will need to learn new skills and may need to learn to delegate some functions (Lee 2009). Expert input may increasingly be needed in the current knowledge economy context; accordingly the inclusion of experts in the team may help reduce the pressure on academics.

The alternative approaches that are available may not be known to supervisors who practise as they were supervised. Postgraduate supervisors may need to become acquainted with various alternative approaches to help facilitate effective planning for complementary approaches in the postgraduate supervision process. Furthermore, appropriate preparatory programmes for support of supervisors need to be made available irrespective of the supervisory approaches used.

A FRAMEWORK FOR GUIDING SUPERVISORY PLANNING

More attention needs to be given to the nature of the postgraduate supervision task to encourage supervisors to change their existing strategies. A conceptual understanding of the holistic process implicit in the process of supervision is needed. Since the postgraduate experience is complex (McCormack and Pamphilon 2004), it is important to consider the various components related to the roles of the supervisor and to identify what is to be achieved in the postgraduate supervision process. The framework for planning was developed after analysis of the literature related to the roles and responsibilities of postgraduate supervisors and theories related to the pedagogy of postgraduate supervision. The constructs in literature that provided the rationale for the construction of the planning framework regarding roles and processes are presented in this section (see Table 1). The importance of planning is also discussed.

Role of the supervisor

The role of the supervisor is complex and involves organisational/management, social, intellectual/cognitive and emotional aspects. Supervision is a dynamic process and the supervisor needs to adapt to facilitate the learning process and support the students' progress through their own learning journey (Maxwell and Smyth 2011; Nulty et al. 2009; Usher 2002). Systematic approaches should be in place to facilitate students' involvement at the multiple levels required for satisfactory completion of

their studies (Zeegers and Barron 2000). Pearson and Kayrooz (2004, 104–105) provided a research based conceptual framework for describing the operational domain of postgraduate supervisory practice. This framework sees supervisory practice as a facilitative process involving educational tasks and activities in carrying out the task of supervision and the various roles and responsibilities needed. They hypothesised five constructs of facilitative supervisory practice include expert coaching, facilitating, mentoring, reflective practice and sponsoring. These roles are confirmed by Lovitts (2008) and Manathunga (2007). Symonds (2009) asserts that supervisor roles are either academic or administrative. However, Manathunga (2005) points out a change in focus from administrative functions to postmodern understandings of supervision related to interactive processes. Moreover, supervision is also seen as a learning/growing experience for the academic (Petersen 2007). Melin Emilsson and Johnson (2007) state that the supervision situation is often discussed and viewed in terms of roles and responsibilities instead of being seen as a whole with the relationship at the centre. As both supervisors and students are both capable of exercising power (Li and Searle 2007), it is imperative that cognisance be taken of balance in meeting the needs of all stakeholders to provide for effective supervision and sustainability.

The variety of roles expected in supervision places high demands on a single supervisor. There are vital roles which can arguably best be fulfilled thanks to the specialist skills of this one supervisor. However, if the whole context and supervision context is considered, there may be other role players who could effectively relieve the load.

Postgraduate supervision processes

Three aspects are relevant to supervision processes: the research product, research identity formation and ontological development. Brew (2001) states that supervision can be conceptualised as a set of skills and techniques to solve problems, promote enculturation into the research community and foster the development of the whole person.

Research is seen as a process rather than a product (Maxwell and Smyth 2011; Malfroy 2005). Melin Emilsson and Johnson (2007) refer to a current focus on problem-based learning processes rather than on the processes focusing on the interpersonal process and relationships. Problem-based learning would thus focus on the product (the thesis or dissertation). Skills development for the thesis or dissertation (research outcome) is clearly vital in the supervision process, but the interpersonal and professional development aspects could to be neglected (Gardner 2008; Green 2005). A focus on product as well as process would encourage a more holistic approach to supervision. Green (2005, 153) states that 'doctoral education is as much about identity formation as it is about knowledge production'. Therefore both cognitive and affective aspects ought to be incorporated in the transformation that needs to take place in the student. For this reason, both student and supervisor

should focus on the process and not only on the product. In this way students' confidence in their research identities are developed (Petersen 2007; Samara 2006). The ecosocial view of supervision is the total environment of postgraduate research activity (Green 2005). Gardner (2008) formulated three phases that could guide planning for the postgraduate process: the programmatic, relational and personal development phases. Personal development entails 'bringing out individual talents and abilities' and reflects the ontological development of the student. The importance of facilitation of students to be 'wise scholars' reflects the process of development of the students' identity as 'socialized disciplinary scholar[s]' (Manathunga 2007, 211 and 215). Gardner (2008, 329) describes the phases in the socialisation process of graduate students in their transition to independence. This transition indicates a variety of processes – academic, interpersonal and professional – that occur during the course of the studies. Gardner found that academic development is just one aspect in the process: the personal growth and development of students are also outcomes of the postgraduate process.

It is important for coordination and planning to take place; otherwise the haphazard application of various approaches could discount the benefits of complementary approaches and threaten the sustainability of the postgraduate process.

Planning for postgraduate supervision

The importance of planning by management as well as by supervisors must be stressed. Student participants' fear (Parker 2009) caused by insecurity – especially in the early stages of the group processes – can be overcome by emphasising mutuality and scaffolding of activities through the course of the postgraduate process. Gardner (2009) refers to the paradoxical quality in the interpersonal relationship in terms of guidance and support needed by the postgraduate students and their increasing feelings of competence and independence. This illustrates the importance of planning for the duration of the process. Both Dysthe et al. (2006) and Croussard (2008) emphasise the importance of having clear routines in alternative supervision processes. Having guidelines helps to maintain accountability and ensure that the various role players in the supervisory team fulfil their roles and responsibilities. Likewise it is helpful for students to be aware of what may be missing and where necessary to get help in areas most needed (Pearson and Kayrooz 2004).

In the planning process, provision needs to be made for coordination and synergy between role-players to endorse quality, accountability and sustainability. Structured planning and sustained coordination throughout the duration of the postgraduate process should be ensured for each student. This vital coordination role should be decided by the role players within each given context.

A framework for planning could be a useful tool to assist the various role players in planning for effective supervision of the postgraduate process. Table 1 provides a planning framework that was designed based on the identified alternative approaches

to supervision as well as the identified roles of supervision and the postgraduate processes.

Table 1: Framework for postgraduate supervision planning

On the grid indentify the approaches that could be followed in your department or with your students. Match the tasks in the postgraduate process listed on the horizontal axis with the role of supervision on the vertical axis.

APPROACHES	
I – Individual interaction	One-on-one process; individual relationship and input is important
E - Expert	Expert (team or panel, co-supervisory practices); utilisation of experts in a specific field in for relevant input
G - Group	Use of group processes
A - Administrator	Managerial/ operational processes

STUDENT POSTGRADUATE PROCESS / SUPERVISORY ROLE	Preliminary preparation	Research Proposal	Literature review	Empirical research/ fieldwork	Analysis	Synthesis	Research/ professional identify formation	Ontological development
Mentoring								
- Specific subject expertise								
- Intellectual development								
- For completion of project								
- Publishing								
- Networking								
- Conference presentations								
- Assist in career goals								
Sponsor								
- Assist with funding								
- Identification of resources								
- Identify administrative procedures								
- Timeous achievement								
- Network introductions								
- Research practice access								
- Directing to other sources of expertise								
Progressing the candidature								
- Co-ordination of role players								
- Monitoring progress								
- Reviewing supervision arrangements								
- Negotiating availability								
- Initiating contact								
- Devoting sufficient time								
- Guidance on thinking processes leading to successful research outcomes								
- Enriching student intellectual flexibility								
Coaching								
- Help to develop expertise while doing research								
- Establish coaching partnership								
- Action planning for steps of research								
- Advising on critical aspects of research								
- Being directive when needed								
- Continually evaluating.								

Adapted from Pearson and Kayrooz (2004).

The framework above could be used as a heuristic tool to aid reflection and planning. The horizontal axis represents the tasks that the student needs to master in the *postgraduate process.* These three tasks, which were identified in the literature and have been discussed in the article, are arranged according to the research product (thesis/dissertation), the development of the research/professional identity and the ontological development of the student. For the successful completion of postgraduate studies, these tasks need to be achieved. On the vertical axis, the *role of the supervisor* hypothesised by Kayrooz and Pearson (2004) as relating to mentoring, sponsoring, progressing the candidature and coaching, and adapted according to roles identified in the literature, is represented.

The various role players identified in the literature include the individual supervisor (I), the group (G), the team / expert (E) and the administrator (A). In the application of this tool, the user is advised to consider each role of the supervisor (vertical axis) and to identify which role player (I, G, E and or A) would be best placed to meet the needs for each of the tasks in the postgraduate supervision process (horizontal axis).

This tool will help in the planning for the postgraduate process for successful completion of postgraduate studies. It is proposed that the tool can be used to create a hybrid model of postgraduate supervision to meet the unique needs of the context where it is applied.

CONCLUSION

In this article we presented an overview of literature addressing alternative supervision approaches and provided a planning framework for spreading the workload of supervisors which could lead to increased efficiency of supervisory roles and practices. As we have indicated, supervisors cannot provide for all the tasks and activities mentioned in this framework, given the current HEI environment. If this planning tool is used, the workload could be distributed to ensure that supervisors can focus on applying their specialist skills while incorporating the benefits of the alternative approaches reported in the literature. The proposed framework can be used for planning for a range of approaches to supervision that are uniquely suited to a specific context. The result of planning for each distinctive context could result in what could be termed a hybrid model of supervision.

The framework has various benefits. It can be used for the following purposes:

- to act as a heuristic tool for planning postgraduate supervision;
- to form a basis for student-supervisor discussion during the initial stages of supervision;
- to act as a tool for learning for capacity enhancement;
- to stimulate critical reflection on current practices;

- to ensure that the aspects of supervision relevant to the postgraduate process are included;
- to assist in delegating supervisory roles;
- to tailor-make provision for students;
- to help ensure accountability;
- to act as a stimulus for discussion and reflection in developing supervisor capacity.

The tool can be applied to provide an overview in planning to avoid the haphazard, unstructured processes that overload supervisors and compromise the quality of students' work.

Further research could test and further refine this proposed planning tool. In addition, the value of using the planning framework in different contexts could be investigated and the need for supervision capacity enhancement could be identified.

Instead of prescribing one approach of supervision over another, an alternative way of organising supervision is needed. A hybrid approach may be most appropriate as it can be adapted to varying circumstances. However, a hybrid approach would require systematic planning to produce benefits to individual supervisors in facilitating the process of producing quality scholars. When planning for postgraduate supervision, multiple experiences should be structured in the process. A critically thought-through planning process to provide an integrated approach to supervision is imperative.

For supervisory planning to be effective, capacity development of supervisors is important otherwise academics may revert to the known apprenticeship approach which is considered to be 'safe'. There should be holistic planning at departmental level to ensure that the workload is spread to allow the supervisors to carry out their specialised function. Increased pressure on academics in the global era threatens the quality, efficiency and sustainability of the postgraduate process and product. As a contribution the article proposes that a discussion on planning for innovative approaches to supervision may contribute to optimal responsiveness in the complex contemporary research environment and thus contribute to more effective postgraduate supervision.

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