

Chapter 1

Sustaining the Momentum: a cross-institutional community of practice for research supervisors

Aileen Cater-Steel, Jacquie McDonald, Peter Albion and Petrea Redmond¹

Abstract Research supervision is an important learning and teaching issue in Higher Education Institutions. This paper reports on the history and outcomes of a community of practice that has been meeting since 2009 to improve the capability of research supervisors at the University of Southern Queensland (USQ) Australia. The Community of Practice - Research Supervisors (CoP-RS) includes academic staff from all USQ Faculties and across all campuses. We describe the background that prompted the formation of the CoP-RS and then detail the activities undertaken to date. The outcomes and challenges are discussed with the view to identify critical success factors to ensure sustainability of the CoP. Conclusions are drawn and future research directions suggested.

Keywords Research supervision • communities of practice • professional development • capacity building • evaluation

1.1 Introduction

Increasingly, Universities in Australia are under pressure to ensure postgraduate research students complete their projects in a timely manner. We also need to consider

¹ Aileen Cater-Steel (✉)

School of Management & Enterprise, University of Southern Queensland, Toowoomba, Australia.

e-mail: Aileen.Cater-Steel@usq.edu.au

Jacquie McDonald

Learning and Teaching Services, Academic Services Division, University of Southern Queensland, Toowoomba, Australia.

e-mail: mcdonalj@usq.edu.au

Peter Albion and Petrea Redmond

School of Teacher Education and Early Childhood, University of Southern Queensland, Toowoomba, Australia.

e-mail: Peter.Albion@usq.edu.au & Petrea.Redmond@usq.edu.au

student satisfaction with the quality of Higher Degree Research (HDR) supervision provided and ensure adequate resources are provided to ensure effective supervision.

The objective of this chapter is to highlight the critical success factors that have contributed to the sustained operation of a community of practice that was formed to support the capacity development of supervisors of HDR students.

Previous research has shown that supervisors tend to base their supervision approach on their own experience as research students (Pearson and Brew 2002). Traditionally, it was presumed that anyone capable of performing research was able to effectively supervise a research project (Taylor and Beasley 2005). Furthermore, the role of Principal Supervisor was typically achieved only after serving an ‘apprenticeship’ as an Associate Supervisor “for the duration of a candidature, from admission through to submission of thesis and successful award of degree” (Monash University 2004).

Literature has emerged relating to the pedagogy of research supervision and the recognition of research supervision as a form of teaching (Manathunga 2005). Consequently, research supervisors are urged to reflect on their own research style and that of their students. Pearson and Brew (2002) mount a compelling argument that supervisors need to develop a “repertoire of knowledge and understanding about different aspects of supervisory practice” (p.146).

Prior to 2008, much of the professional development for research supervisors at USQ was conducted within Faculties. It was organised in a sporadic, ad-hoc fashion with little evaluation of training programs. In 2008, the Graduate Research Committee at USQ decided to implement an accreditation scheme for HDR supervisors. This raised awareness of the need for a coherent training program for supervisors.

A Community of Practice for Research Supervisors (CoP-RS) was established in 2009 and continues to meet regularly. The purpose of the CoP-RS is to provide a formal social network of USQ research supervisors to encourage education, dissemination of good practice and to build on the existing knowledge in research supervision. Support and guidance has been provided by USQ, Learning and Teaching Support (LTS) CoP expert Dr Jacquie McDonald, as part of her LTS Community of Practice leadership role.

In this chapter, we provide a brief overview of the community of practice literature, then using narrative inquiry, outline how CoP theory was, and continues to be, implemented in practice. Finally, we explain how the CoP-RS has overcome challenges to sustain its focus and function over seven years. Conclusions are drawn and future research directions suggested.

1.2 Background of HDR Supervision Development Project

A USQ Learning and Teaching (L&T) Fellowship project was approved in 2009 to address two key issues:

- Do research supervisors at USQ have adequate knowledge and skills to supervise students?
- Can the capability of research supervisors be improved by offering workshops and resources as part of USQ's professional development program?

The project followed guidelines promoted by Pearson and Brew (2002) and "focused on the development of supervisors' knowledge base, their skills and their orientation to their practice" (p.148). It aimed to provide the following learning outcomes for research supervisors:

- knowledge of USQ institutional requirements and procedures including ethics and workplace health and safety;
- greater self-awareness of supervisors' own conceptions of research and supervisory practice;
- an understanding of what constitutes a productive research learning environment; and
- an appreciation of a range of good practice approaches to research supervision.

The L&T project comprised four main activities to be achieved in one semester from March 2009:

1. Establish a Community of Practice for Research Supervisors (CoP-RS);
2. Perform training needs analysis;
3. Develop and conduct induction and pilot workshops program;
4. Evaluate the program and report outcomes and recommendations to stakeholders.

The focus of this chapter is on the first activity: the CoP for research supervisors.

1.3 Prior and Current Research on CoPs

The community of practice approach (Wenger 1998) supports the development of a knowledge base for supervisors. Wenger's approach provides a framework where subtle, tacit types of knowledge can be cultivated, shared and sustained (Hildreth and Kimble 2004). Tacit knowledge is highly personal, and is understood without being articulated. It is the kind of knowledge that successful, experienced supervisors use in their everyday practice; however, it is hard to formalise and therefore difficult to communicate to others as it is unvoiced or unspoken. Lave and Wenger (1991) and Vygotsky (1978) have identified the acquisition of knowledge as a social process and communities of practice provide an opportunity to share and articulate tacit knowledge. The CoP approach of sharing practice and building domain knowledge (Wenger, 1998), creates an environment where tacit knowledge can be made explicit.

The term ‘communities of practice’ emerged from Lave and Wenger’s (1991) study that explored learning in the apprenticeship model, where practice in the community enabled the apprentice to move from peripheral to full participation in community activities. Wenger, McDermott and Snyder (2002) describe communities of practice as:

“Groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis ... (As they) accumulate knowledge, they become informally bound by the value that they find in learning together. Over time, they develop a unique perspective on their topic as well as a body of common knowledge, practices, and approaches. They also develop personal relationships and established ways of interacting. They may even develop a common sense of identity. They become a community of practice” (pp. 4-5).

The community of practice model proposed by Wenger (1998) and developed further for business contexts by Wenger, McDermott and Snyder (2002) provides a framework for the building of successful academic communities of practice. The essential elements of a Community of Practice are defined by Wenger (1998) as:

- a domain of knowledge that creates a common ground and sense of common identity;
- a community of people who care about the domain and create the social fabric of learning; and
- a shared practice that the community develops to be effective in its domain.

In this project, the domain of knowledge is focused around research supervision and the community members are USQ research supervisors. At USQ substantial progress has been made in adopting the Community of Practice concept since it was piloted in 2006 in the Faculty of Business CoP for First Year Core Course Leaders (McDonald and Star 2008, 2006). The model has a number of unique features that have proven successful at USQ for implementing and sustaining CoPs in an academic context. These features include the use of the three CoP elements of community, sharing practice, and building domain knowledge which provide the organising structure for CoP meetings.

This CoP structure ensures that each of the essential elements of a CoP is addressed at CoP meetings and provides clear direction, outcomes and value-adding for members. The structure, community support, and outcomes have assisted in addressing initial scepticism about ‘just another meeting’, and ensure best use of the time committed, for time-poor tertiary educators (McDonald and Star 2008).

1.3.1 Brief history of social learning theory and communities of practice

USQ CoPs are informed by social learning theory (Bandura 1972) moving the focus of learning from the individual to a cognitive process that takes place, or is situated, in a social context. Vygotsky (1978) made a major contribution to social learning theory by arguing for the importance of social relations and supporting learners to relate what they already know with what they could know, thereby influencing educational approaches and underscoring the importance of learning in a social environment. Mercieca (2016) provides an extended discussion on the social-cultural underpinning of CoPs. Mercieca notes that Vygotsky (1978) saw social relations as an important component of developing higher level thinking, and should not artificially separate intellectual and social activities: “Rather, we should conceive of the individual and his environment as factors that mutually shape each other in a spiral process of growth” (Vygotsky, 1978, p. 22).

The term ‘Communities of Practice’ emerged from research into learning at the Xerox Palo Alto Research Centre in California in the 1980s (Tight, 2015), and has moved from describing organic communities to suggest approaches to create and support communities, implement intentional and strategic communities, and to view not just individual communities, but members of communities operating across a whole landscape of practice. Etienne and Bev Wenger-Trayner have moved their social learning and Community of Practice research and theory from CoPs in a specific practice field to social learning and knowledgeability across a whole landscape of practice (Wenger-Trayner et al. 2015).

The early work of Lave and Wenger (1991) that investigated the apprenticeship model of learning showed that, rather than the novice apprentice learning from the master craftsman, learning took place through a complex set of social relationships. A whole social network, including other apprentices, supported the learning journey within the particular practice field, and eventually led to recognition as a fully-fledged member of the Community, hence the term ‘Community of Practice’.

The Community members have valuable local knowledge and strategies to share with their colleagues. Within the CoP literature, this is highlighted by the emphasis on the practice of the participants, the sharing of tacit knowledge, and the role of apprentices, who learn the craft of their masters through observation, imitation and practice (Wenger 1998). Research and CoP literature has moved from this early identification of CoPs in craft ‘training’, to study of CoPs in industry, government, education, and international funding agencies. The explosion of knowledge and use of technology in Higher Education is equally reflected in its impact on business, government and all aspects of society. While increasing knowledge is valued, how to manage and share knowledge is a challenge to Higher Education institutions, educators and learners. As noted by Wenger et al. (2002) early attempts at knowledge management originated from information technology departments that tended to confuse knowledge and information. Huge resources have been devoted

to building (often unused) information systems and data bases. These can capture explicit information as knowledge ‘objects’; however, tacit knowledge is “an accumulation of experience” (Wenger et al. 2002) that continues to grow with everyday experience, and people (in this case – research supervisors) are the living repositories of the knowledge, which can be shared within the CoP. With tacit knowledge, people are often not aware that they possess it or of how it can be valuable to others. Wenger et al. (2002) argued that tacit aspects of knowledge are often the most valuable and sharing requires extensive personal contact and trust, and the interaction and informal learning as experienced in CoPs.

1.4 Methodology

The methodology used to conduct the research for this chapter was based on narrative inquiry with reflective processes as a means to document the experiences of the CoP-RS facilitators. The narrative inquiry approach entails the documentation and analysis of sequential personal accounts of a specific domain of discourse, allowing the research participant to tell his or her own story (Hunter 2004). As faculty members, we are encouraged to use reflective practice to prompt considered actions to enhance our teaching (Fry et al. 2009; Schön 1983).

This research was motivated by our desire to document and share the details of the CoP-RS initiative. The authors met and discussed in detail our experiences in terms of the CoP-RS establishment, meetings, history, support challenges, and outcomes. We also accessed the CoP-RS repository, annual reports and results from the annual evaluation surveys. After agreeing on the format of the narratives one of the authors prepared a draft account that was reviewed by the other researchers. Through this process we were able to gain deeper understanding of the issues and outcomes of the CoP-RS since its inception in 2009.

1.5 Establishment of CoP-RS

One of the highlights of the L&T project was that it contributed to overcoming internal USQ boundaries between ‘Research’ and ‘Learning and Teaching’. Financial support from the Pro-Vice Chancellor (PVC) L&T was provided with an Associate Fellowship grant. The project also involved the Human Resources department (recording of attendance for professional development register, scheduling workshops), the PVC Research (funding for CoP-RS refreshments) and also the Office of Research and Higher Degrees (providing lists of supervisor names). The planning and implementation of CoP-RS was a collaborative partnership between two of the authors of this chapter: the Project Leader and a member of LTS. This is an example

of the ‘joint portfolio’ between the teaching and learning centre and the research centre of the university as discussed by Murphy (2004).

To help establish the CoP-RS, lists of supervisor names were provided by each Faculty and were in five different formats. The files contained errors in listed names and some names were omitted. When the lists were combined, de-duplicated, and corrected, the total population of supervisors numbered 190 rather than the initial estimate of 80. Invitations were emailed to the supervisors to attend the launch of the project and the first CoP-RS meeting.

The role of convenor was shared by a domain expert, in this case the Project Leader (Aileen Cater-Steel) and a convenor with knowledge of CoP processes and professional development knowledge (Jacquie McDonald).

The establishment of the CoP-RS across all faculties at USQ commenced with the launch of the project by the PVC (Research). Support and guidance was provided by L&T CoP expert Dr Jacquie McDonald, as part of her Learning and Teaching Support (LTS) Community of Practice leadership role. CoP priorities and a yearly agenda were established from issues identified by members at the first CoP meeting. The CoP-RS meetings have a three part structure: fellowship and sharing refreshments; sharing practice; and building domain knowledge.

During the initial CoP-RS meeting, supervisors worked in groups to discuss, list, and prioritise issues in relation to research supervision. The issues fell into four categories:

- Lack of training, mentoring, workload allocation to support supervisors. Training requirements include thesis proposal defence, thesis writing, philosophy and methodology. It was suggested that a requirement existed for compulsory professional development for all supervisors and to undertake an audit of supervisors’ skills and processes.
- Need to establish and maintain positive relationships with students and to recognise external pressures for student to complete in minimum time.
- Requirement for a central web-based repository so supervisors can access policies, procedures, definitions.
- Difficulties in supervising international students in Australia and across borders.

The final issue at start-up time was as a result in the doubling of the headcount of international research students over a five year period from 39 to 88 as shown in Table 1.1.

Table 1.1 Higher Degree Research Students – Student Headcount from 2003-2008

Student Group	Year					
	2003	2004	2005	2006	2007	2008
International	39	43	51	58	65	88
Domestic	146	157	158	157	203	241
Total	185	200	209	215	268	329

Source: USQ Data

The second CoP-RS meeting focussed on sharing practices related to international students. Members discussed the challenges of supervising international students and suggested a range of solutions to overcome the perceived challenges. One suggestion implemented was the use of the existing USQ learning management system (Moodle) to create a community research ‘course’ that was not tied to any program or semester offer. This ‘course’ provides an online environment for supervisors to share resources, build learning communities and electronically answer frequently asked questions, for example, about policy issues.

Although the L&T project achieved its outcomes in terms of the establishment of the Cop-RS and the pilot workshops, there were challenges. Supervisors from all five faculties were invited to the CoP-RS meetings; however, only about 20 participated in the CoP at the early stage, with little interest from supervisors at USQ’s branch campuses. It is not surprising that there was resistance as the project was associated with USQ’s implementation of a supervisor accreditation initiative. Increasing expectations of accountability and performance have changed the traditional supervisor role, with the locus of accountability with “the institution rather than individual academics, particularly in Australia . . . where ranking relates to the institution rather than its ‘component parts’” (Coaldrake and Stedman 1999, p.11).

Since the CoP-RS was formed in 2009, the activities/functions have followed the following pattern:

- Annual update of members’ contact details from Office of Research Graduate Students (ORGS) list of active supervisors;
- Funding application for year’s activities;
- Planning meeting at start of year to set dates, venues, propose topics, speakers;
- 6-8 meetings per year, each of 2 hours duration, with videoconferencing from main to branch campuses, with refreshments (lunch);
- Repository updated (Moodle Learning Management System) with agendas, reports, presentation files, templates, procedures, photos, documents etc.
- Annual online evaluation survey of attendees;
- Annual report of CoP-RS activities and outcomes to DVC (Research and Innovation);
- End of year celebration with recognition of supervisors with graduates – certificates and gift.

In addition, specific recommendations from CoP-RS meetings are referred to appropriate committees/officers, initially the Graduate Research Committee, and more recently to Office of Research and Deputy Vice-Chancellor (Research and Innovation).

The HDR student load has shown steady growth over the last five years as shown in Fig. 1.1. The number of academic staff involved in HDR supervision has increased accordingly.

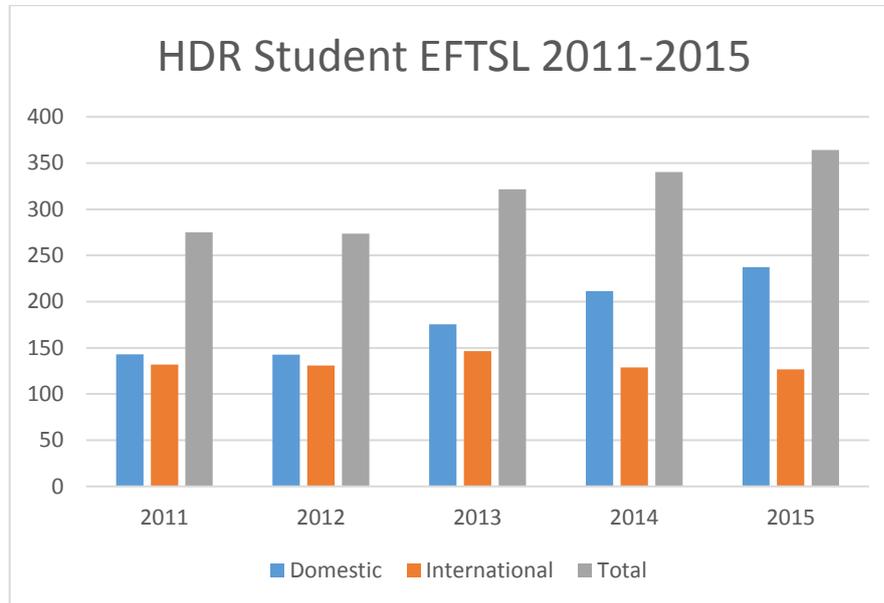


Fig. 1.1 USQ HDR Student Load 2011-2015 (Source: Terry 2016).

1.6 Sustaining the Momentum

1.6.1 Institutional Support

There is an administrative overhead to maintaining the CoP-RS in terms of refreshing the list of members, arranging venues and speakers for meetings, recording notes, updating the repository of documents, conducting the evaluation survey and identifying successful supervisors to be recognised in the year-end celebration. The facilitators of the CoP-RS were not provided with any workload relief for these activities, which were initially performed by a project officer funded via an Australian Learning and Teaching Council (ALTC) Fellowship grant (McDonald 2014).

In 2011, as the number of CoPs increased and became recognised at USQ as valuable initiatives for staff professional development and student support, the CoP support role was relocated from LTS to Human Resources (HR) and the level of support to the CoP-RS reduced to registrations of participants and bookings of venues. In this regard, the CoP-RS fared better than others as the Pro Vice-Chancellor (Research), as sponsor of the CoP-RS, provided ongoing funding for casual administrative assistance as well as the cost of refreshments.

In mid-2013 the organisational structure of USQ's Academic Division was radically changed. The number of faculties reduced from five to two and senior leadership positions changed. The incoming DVC (Research and Innovation) pledged to continue support of the CoP-RS and took over the role of sponsor, providing refreshments while the two Associate Deans (Research and Research Training) provided administrative support from their professional staff. In fact, there has been high turnover in the staff providing administrative support but the care to maintain procedural documentation has enabled reasonably seamless handovers.

1.6.2 Facilitator Succession Plan

Recognising the risks of relying on one key person to organise the CoP-RS, since 2011 active members have been recruited to share the facilitation duties, plan the meeting schedule and agendas, and chair meetings. Care is taken to ensure both Faculties are represented in the facilitation team and that facilitators develop key leadership skills, capabilities or competencies that are needed to contribute to successful leadership by the facilitator (McDonald, Star, Burch, Cox, Nagy, & Margetts, 2012). Co-facilitation is an accepted approach in USQ CoPs and is acknowledged as a strength through sharing and building leadership capacity and ensuring succession transition (Etienne Wenger, personal conversation 2009).

1.6.3 CoP-RS Activities

As at the end of 2015, the CoP-RS has held a total of 47 meetings and attracted 1214 attendances. This represents 2428 hours of professional development. Topics for discussion have covered both administrative and academic knowledge and skills required by supervisors. Administrative knowledge includes topics such as USQ research strategy, intellectual property (IP) policy and contract framework, ethics approval processes, workplace health and safety issues relating to students, policies related to research finance support, administrative processes, USQ and Federal Government policies relating to admission, confirmation of candidature, submission of thesis, and examination. In relation to academic knowledge and skills specific areas discussed include nurturing the student-supervisor relationship, literature reviews, development of the research proposal and confirmation of candidature, thesis writing, and data analysis methods.

As well as invited visiting distinguished experts, senior managers are invited to address the meetings and update members on changes to strategy (e.g. Senior Deputy Vice-Chancellor, Deputy Vice-Chancellor (Research & Innovation), and Director of Office of Research and Graduate Studies). Other USQ professional staff with duties directly related to HDR student supervision are also invited to present topics

e.g. Ethics and integrity manager, Grants officer, Legal officer, ICT Support Manager, Research Librarian, e-Research Analyst, Statistics Consultation group, and Director International Office.

1.6.4 CoP-RS Outcomes

An online survey of attendees is conducted annually with support from USQ's Strategic Business Management and Improvement staff. When asked why they attend the CoP, there are three main reasons given by supervisors:

- Professional development e.g. "To increase my skills as a supervisor and to learn of requirements and expectations of the University", "As a newly accredited supervisor, to learn from the experience of more seasoned supervisors".
- Sharing knowledge e.g. "To help others learn from my experiences and for me to learn how to better support my students", "To see what others are doing - and maybe foist my opinions onto them".
- Participation in a community e.g. "I enjoy the group interaction", "I like to reflect on my supervision and I prefer to do that with colleagues rather than by myself", "Interesting topics, collegiality and support network", "Networking opportunities".

In terms of how useful participants find attendance at the CoP-RS, the positive comments were aligned with the three motivating themes mentioned above:

- Professional development e.g. "I am not sure that there has been an impact on my students, but the meetings make me feel confident in my own abilities.", "Yes, very useful in terms of thinking about the role and responsibilities and picking up tips", "Some good presentations to date".
- Sharing practice e.g. "Very useful. This includes an appreciation of how I may be able to help others develop their ability as a research student supervisor", "Very useful CoP as a supervisor in sharing good practices."
- Community "Good to share ideas and hear what others do.", "They have been really useful in terms of sharing ideas and challenges as well as support", "Sharing ideas and experiences of others are very useful", "Hearing other points of view", "The material delivered and the fellowship have been worthwhile".

The recent cessation of the mandated supervisor training workshops means that the CoP-RS is currently the only consistent form of professional learning for HDR supervisors. CoP-RS co-facilitation, leadership strategies, and implementation of the three essential CoP elements of community, sharing practice and building domain knowledge (Wenger 1998) have contributed to its ongoing success and impact. Factors that can assure its sustainability are an important consideration.

1.7 Factors to Assure Sustainability

On reflection, we consider that five characteristics of the CoP-RS contributed to its longevity.

- 1) High level organisational support and recognition as evidenced by sponsorship from DVC, funding for activities, administrative support from Associate Deans.
- 2) Consistent internal mechanisms: three element agenda structure and storage of resources on Moodle LMS as a repository.
- 3) Ongoing support from functional groups outside the Academic Division, for example, Learning & Teaching Support, Office of Research Graduate Studies, Performance and Development (HR), and Sustainable Business Management and Improvement.
- 4) Team of facilitators – committed to the CoP approach and practising subtle, yet powerful, facilitation rather than an ‘heroic leadership’ approach – reduces burn out. Multiple facilitators provide fresh perspectives and ensure the CoP is member driven.
- 5) Visibility of effectiveness: surveys report good outcomes for participants and the CoP-RS has successfully lobbied senior management to improve conditions for supervisors and HDR students, for example, increased workload allocation for supervisors and improved scholarships for international students.

Maintaining CoP integrity and ensuring sustainability is an ongoing challenge. It has been awkward at times to maintain the balance of a facilitated, member driven, CoP, against pressure to use the CoP as an institutional performance management tool. Since the success and impact of CoP-RS became evident, facilitators have had to resist an effort by one Senior Manager to ‘task’ the CoP to do undertake a management priority. This is not unexpected, given the evolution of CoPs from an organic, bottom-up approach to CoPs being viewed as the key to success in a global knowledge economy (Tight 2015). Wenger, McDermott, and Snyder’s guidebook (2002) on the cultivation of communities of practice suggested that “organizations need to cultivate communities of practice actively and systematically, for their benefit as well as for the benefit of the members and communities themselves” (p. 12).

The tension experienced by the CoP-RS is also noted by Reaburn and McDonald (2016) who stated the importance of ‘managing up’, that is, not allowing the CoP agenda to be driven by senior leaders/managers, while also engaging them to ensure the sustainability of the CoP. The facilitators of CoP-RS have managed to keep a level of autonomy while enjoying the benefits of rather formal organisational support structures.

Experience and research (McDonald 2014; McDonald et al. 2012; Ortquist-Ahrens and Torosyan 2009) suggest that effective facilitation is crucial for creating

and sustaining CoPs. The importance of the facilitator role is articulated in McDonald (n.d.) and McDonald et al. (2012) and resources relating to this unique leadership role in an Australian context have been developed through two Australian Office of Learning and Teaching grants. They can be accessed via McDonald (n.d.) and <http://www.cops.org.au/resources/>.

1.8 Conclusion

The CoP-RS has followed the CoP life cycle model as shown in Figure 1.2 but as a series of annual iterations commencing with planning and ending with evaluation. It has become firmly established and institutionalised within the organisation while maintaining autonomy.



Fig. 1.2 CoP life cycle model (Source: McDonald et al. 2012, p. 7)

Critical success factors that contributed to the sustainability of the CoP-RS over the past seven years include support and recognition from senior management, consistent internal mechanisms, ongoing support from related internal departments, a committed team of facilitators, and visibility of its effectiveness.

Investigation of the impact of CoP-RS activities on the confidence and capacity of research supervisors, and subsequent impact on student outcomes is an area for future research. More broadly, the reasons for failure and/or success of higher education CoPs and strategies to ensure sustainability are also future research areas.

The CoP-RS has been effective in promoting research leadership and building a research supervisor community that has broken down the borders between Faculty and research disciplines. Despite radical changes to the organisation's structure and management, the CoP-RS has continued to provide rich learning opportunities and build a dynamic community with a high level of expertise and resources to support research supervisors across faculties and campus.

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Figure captions:

Fig. 1.1 USQ HDR Student Load 2011-2015 (Source: Terry 2016).

Fig. 1.2 CoP life cycle model (Source: McDonald et al. 2012, p. 7)