

# Doctoral Level Management Action Research – A Graduate’s Experience

Dr Kersti Nogeste  
Principal Consultant, Project Expertise Pty Ltd  
Adjunct Professor, RMIT University  
Melbourne, Australia  
Web site : [www.projectexpertise.com.au](http://www.projectexpertise.com.au)  
Email : [knogeste@projectexpertise.com.au](mailto:knogeste@projectexpertise.com.au)

## ABSTRACT

Driven by the knowledge economy the current dichotomy of university based learning and workplace practice needs to change; in terms of both the production of practically relevant research and the transfer of research results between academia and managers. Universities need to increasingly complement conventional approaches to managerial learning with approaches that acknowledge and support the redefined relationship between higher education and work, through to the knowledge workers undertaking the work of the knowledge economy, only some of whom are located within university settings.

Partly in response to the knowledge economy, doctoral level management studies have evolved to offer students a choice between PhDs and professional doctorates, both of which offer the opportunity to undertake management action research (AR) which involves concurrent research and action.

A first-person case study of doctoral level management AR is used to illustrate the use of AR as research-in-action, by stepping through a series of five action research cycles which led to the *Development of a Method to Improve the Definition and Alignment of Intangible Project Outcomes with Tangible Project Outputs*; a method which has contributed to both research and practice. In addition, the role of the researcher is reviewed along with how key challenges of AR were addressed.

Management educators and researchers, including post graduate students may find the paper encourages them to seriously consider the inclusion of AR in their programs of study.

**Key words:** Management, Education, Action Research, Doctoral, Project Management, Intangibles

## 1 INTRODUCTION

Driven by the knowledge economy the current dichotomy of university based learning and workplace practice needs to change; in terms of both the production of practically relevant research and the transfer of research results between academia and managers. Universities need to increasingly complement conventional approaches to managerial learning with approaches that acknowledge and support the redefined relationship between higher education and work, through to the knowledge workers undertaking the work of the knowledge economy, only some of whom are located within university settings.

Partly in response to the knowledge economy, doctoral level management studies have evolved to offer students a choice between PhDs and professional doctorates, both of which offer the opportunity to undertake management action research (AR) which involves concurrent research and action in a workplace setting. AR is particularly suited to management research because it is sufficiently flexible to deal with potentially complex, multi-faceted management practice problems.

In parallel to the rise of the knowledge economy, projects are playing an increasingly important role in organisations – in terms of corporate renewal, capability integration and as leadership incubators which provide leaders with the opportunity to lead an organisation from start to finish.

Therefore universities that actively support sufficiently rigorous and relevant management research in increasingly important areas such as project management will be recognised as providing their researchers, including their students with the opportunity to contribute to the production and transfer of solutions that address both practice problems and research interests.

Not that this will be without its challenges, especially in terms of sustainable sources of academic supervision.

Nevertheless examples do exist of post graduate, including doctoral candidates undertaking just such management action research, yielding rigorous and relevant solutions to both practice problems and research interests. Examples which can serve as guides and inspiration to others.

This paper comprises two main parts – a literature review followed by a first-person case study.

The literature review starts with a high level overview of the literature related to management education, research and practice in the knowledge economy, and the format of currently available doctoral programs followed by similar descriptions specific to project management. This is then followed by an introduction to AR, concluding with a review of Management AR in particular.

The case study comprises a description of the author's doctoral AR study which led to the *Development of a Method to Improve the Definition and Alignment of Intangible Project Outcomes with Tangible Project Outputs*; a method which has contributed to both research and practice. In addition, the role of the researcher is reviewed along with how key challenges of AR were addressed.

The paper finishes with a brief set of conclusions.

## **2 MANAGEMENT EDUCATION, RESEARCH AND PRACTICE IN THE KNOWLEDGE ECONOMY**

### **2.1 Overview**

Whilst on the one hand, "adult working students typically enrol in graduate management programs as a direct result of their lived experience in organisations" (Dehler 2006, p637) on the other hand somewhat paradoxically, most of them have gained their formal education via classroom education or training (Raelin & Coghlan 2006, p670).

However, driven by the knowledge economy the current dichotomy of university based learning and workplace practice needs to change. By acting as "both a catalyst for, and an outcome of new modes of knowledge production" (McWilliam et al. 2002, p99), the knowledge economy demands that universities re-examine how they operate and locate themselves (Tennant 2004, p432) in terms of both the production of practically relevant research and the transfer of research results between academia and managers (Shapiro, Kirkman & Courtney 2007, p249).

So, if universities are to adequately respond to the demands of the knowledge economy, they will need to increasingly complement "conventional approaches to managerial learning" which do not incorporate live or real-world experience into the learning process (Raelin & Coghlan 2006,

p670), with approaches that acknowledge and support the redefined relationship between higher education and work (Lee, Green & Brennan cited in Rhodes & Garrick 2003, p448) through to the 'knowledge workers' undertaking the work of the knowledge economy, only some of whom are located within university settings (McWilliam et al. 2002, p99).

In addition, as part of the knowledge economy, an emerging worldview is the participatory nature of life (and work), to the point where they do not "consist of separate things but of relationships which we co-author" (Reason & Bradbury 2008, p8).

So, "clearly, we need a management education approach that appreciates the contextual variety in management practice and can transfer whatever is learned into actionable knowledge inside the organisation" (Raelin & Coghlan 2006, p671). Students of management courses need to become practitioners, not just learn about practice (Brown and Duguid as cited in Raelin & Coghlan 2006, p673).

One means of bridging the theory-practice gap, is to incorporate action research into management education programs (Levin & Greenwood as cited in Dehler 2006, p664; Welsh & Dehler 2007, p406, p418).

## **2.2 Doctoral Programs**

Doctoral studies have changed from the 19<sup>th</sup> century when "the advancement of knowledge was the primary mission of the university and the focus of the doctorate", through to more recent times (Bourner et al, Scott et al, Coghlan and Davis cited in Coghlan 2007, p335) when the demand for 'working knowledge' (Tennant 2004, p433) has caused universities to consider "mak(ing) a significant contribution to practice", (Bourner et al, Scott et al, Coghlan and Davis cited in Coghlan 2007, p335) as demonstrated by "the development of professional doctorates which attempt to link doctoral education more closely with workplace problems and issues" (Tennant 2004, p433), generating "actionable knowledge... that is useful to both the academic and practitioner communities" (Coghlan (2007) cited in Coghlan 2007, p336). Professional doctorates are intended to provide value to fields outside of the university in addition to the more classic intrinsic value of university based knowledge production. (Brennan cited in McWilliam

et al. 2002, p4-5). Indeed, professional doctorates are considered to support the “sort of judgement that characterises professional workplace decision-making” (McWilliam et al. 2002, p6) (and as such provide alternatives to PhDs which tend to have a curriculum focus on disciplinary depth) (McWilliam et al. 2002, p6).

The work required by universities to offer quality post graduate programs with a dual focus on research and practice poses quite a few challenges to current cultural norms and academic reward systems (Bennis & O'Toole 2005, p96-98; Levin & Greenwood as cited in Dehler 2006, p664; Vermeulen cited in Markides 2007, p783; Welsh & Dehler 2007, p406, p418; Baker as cited in Whitehead 2005, p521) – including the work required to make the structural changes required to provide an “enabling framework and credentialing system” (Tennant 2004, p437). (Also refer to section 4 of this paper).

## **2.3 Project Management Education, Research and Practice in the Knowledge Economy**

### ***2.3.1 Management and Project Management***

Projects play an important role in modern enterprises, providing a means of corporate renewal and capability integration (Berggren & Soderlund 2008, p286). As a result, project-based structures are complementing or even replacing traditional post-war divisional organisational structures (Whitley as cited in Berggren & Soderlund 2008, p286). In line with the increasing importance and role of projects, is the recognition of projects as “school(s) for leaders” (Bowen et al cited in Berggren & Soderlund 2008, p288) because they “provide leaders with the opportunity to lead an organisation “from start to finish, from birth to death” (Berggren & Soderlund 2008, p296). Therefore it is expected that “over time the ranks of the senior executives will be filled by people capable of integrative leadership with a rich background of getting things done through projects” (Bowen et al cited in Berggren & Soderlund 2008, p288).

### ***2.3.2 Project Management Education***

The increasing importance of projects to organisations and the consequential “increase in demand for staff with project management skills, knowledge and competencies” (Atkinson 2008, p221) is reflected by the increasing importance of project management to universities and management educators (Berggren & Soderlund 2008, p286) as demonstrated by the increase in

the number of higher education institutions offering project management courses (Atkinson 2008, p221).

At the doctoral level, this is reflected by candidates now having a choice between three main types of programs, a PhD or Doctor of Business Administration (DBA) with a PM emphasis, or the Doctor of Project Management (DPM) degree (Walker 2008, p317), with the latter two of these degrees both being professional doctorates.

In order to remain relevant, these courses in particular need to meet the contemporary needs of project management research and practice by treating project management as “a professional discipline in its own right”, widening the topics of PM study and helping project managers to become reflective practitioners (Walker 2008, p316). In order to do so, the responsible project management educators need to actively participate in the demanding process of combining research with practice (Berggren & Soderlund 2008, p296).

### ***2.3.3 The RMIT University DPM Program***

Several universities offer the Doctor of Project Management (DPM) degree, with the first (in the world) having been offered by RMIT University in Melbourne, Australia, shortly followed by another offered by the University of Technology Sydney (UTS) in Sydney, Australia (Walker 2008, p317).

The RMIT University DPM “is a research degree comprising one-third coursework and two-thirds research. The coursework comprises four core courses, each of which is assessed on the basis of online group work and an individual assignment. Three of the four core courses are compulsory, with the fourth being a negotiated elective. The three compulsory core courses focus on PM Leadership, Knowledge Management and Innovation, PM Procurement and Ethics” each with “an associated (online) reflective learning course” (Nogeste & Walker 2008, p283).

The research component of the DPM is required to generate and develop “practical and useful ideas to improve project management practice” (Walker, 2002, p. 2) and “usually comprises research undertaken by the candidate in their workplace. Thus, the nature of such research is very much in tune with the idea of a reflective practitioner” (Schon as cited in Nogeste & Walker

2008, p284). Further, many of the candidates actively participate in their research via action learning (Nogeste & Walker 2008, p284) or action research, developing both professional knowledge and “ways of working” (Malfroy, 2004, p. 69) via personalised forms of learning that increases the likelihood of a successful and enduring educational experience (Demos cited in Klenowski & Lunt 2008, p204)

The RMIT University DPM program can be compared to PhDs, in that it is “very much a PhD but with coursework initially undertaken on-line with a very heavy emphasis upon a practice-based research question/problem” (Walker 2008, p322). Therefore, “with many PhDs currently addressing similar issues using a variety of qualitative research methodologies, it can be argued that the DPM and these PhDs are essentially the same but the delivery method and philosophy provides an innovation in approach to deliver the program” (Walker 2008, p322).

This argument is similar to the proposals made by Tennant (2004) and Neumann (2005) regarding the significant similarity between professional doctorate and PhD programs and how in the future they need not be differentiated as they have been to date. Tennant proposes that rather than universities aligning PhDs and professional doctorates with two parallel types of knowledge (knowledge worker and research design), they should instead address the challenges of “what constitutes ‘legitimate knowledge’ in contemporary times and ... infuse all forms of doctoral education with this challenge” (Tennant 2004, p436).

Neumann suggests that universities offer doctoral programs of recognised quality with “sufficiently rigorous doctoral level study and research”, allowing students to select either the professional doctorate or PhD award name; whichever best meets their career needs (Neumann 2005, p185).

Having successfully established the DPM program at RMIT University, Walker has identified some future challenges related to the growth and sustainability of such courses, especially in terms of the potentially large numbers of students enrolling in DPM, PhD and DPM courses and the currently relatively small pool of qualified and available supervisors, particularly those with knowledge and experience of qualitative research methods such as action research (Walker 2008,

p323). Challenges which are consistent with those described by both Shanahan (cited in McWilliam et al. 2002, p6) and McWilliam et al (2002). Shanahan notes that for the past ten years, concerns have been voiced about academics' lack of knowledge about professional doctorates, especially with regard to research supervision (Shanahan cited in McWilliam et al. 2002, p6). Whilst McWilliam et al recommend that universities "re-educate a part of the academic community to teach, supervise and examine in ways which are sensitive to, and supportive of, these alternative doctorates" (McWilliam et al. 2002, p105)..

#### ***2.3.4 Project Management Research and Practice***

The Rethinking Project Management network (UK) proposes that "what is needed to improve project management in practice is not more research on what should be done or the frequency and/or use of traditional project management practices", rather that there is a need for an increased focus on the "'actuality' of project based working and management... - a research approach that takes seriously practitioner's lived experience of projects" (Cicmil et al. 2006. p675).

This increased focus is considered important for a number of reasons, including the creation of knowledge "which is relevant to practice and reflects the interests of both academic and practitioner communities" (Cicmil et al. 2006, p676) and because "the understanding which drives much of project management literature does not satisfactorily explain the richness of what actually occurs in project environments" (Cicmil et al. 2006, p684).

Further, it is proposed that the call for the study of "the actuality of projects" needs to be founded on practices such as rich ethnographic studies and action research which allow for practitioners' interpretations of their experiences and actions to be listened to, and for co-authoring between researchers and practitioners (Cicmil et al. 2006, p677). With the value of this research being "the co-production of knowledge between the researcher and the researched (e.g. project management practitioner) with the aim to connect action and reflection through fusion and cooperation between reflective practitioners and pragmatic researchers" (Cicmil et al. 2006, p677). Encouraging practitioners to become researchers' "partners" in the process of inquiry



(Cicmil et al. 2006, p678).

### **3 ACTION RESEARCH**

#### **3.1 Overview**

Essentially, action research is a methodology that “is used by a group of people who work together to improve their work processes, that is a community of practitioners or co-researchers” (Lewin and Altrichter et al cited in Perry & Rao 2007, p125).

And yet, despite gaining international recognition as a field of research practice, “action research cannot be programmatic and cannot be defined in terms of hard and fast methods” (Reason & Bradbury 2001, p2), therefore “action research does not have one neat, widely accepted definition” (Altrichter et al. 2002, p125) nor one which has gained “pre-eminence on the field” (Altrichter et al. 2002, p125). Instead, action research is a ‘family’ of methodologies which are “approaches to inquiry” (Reason and Bradbury cited in Olsen & Lindoe 2004, p371) that pursue the dual outcomes of action (or change) and research (or understanding) at the same time (Dick 2002, p159; Earl-Slater 2002, p133).

As with most families, the ‘family’ of action research methodologies shares a common set of characteristics :

- Action Research includes the researcher taking genuine action (Reason and Bradbury cited in Gummesson 2000, p118-123; Olsen & Lindoe 2004, p371);
- Research is concurrent with action (Coughlan & Coughlan 2002, p222);
- Action research comprises a series of successive cycles, which when connected become a spiral (Saunders 2003, p95).

With the reflective aspect of action research being critical because it combines thought about observations and relevant literature to plan the next cycle of action and research (Kemmis & McTaggart 1992, p88).

Action research cycles may be described and depicted as a series of single integrated cycles or dual parallel cycles. Single cycle models are provided by a number of authors, including Dick

(2002b, p2), McNiff and Whitehead (2000, 2002) and Kemmis and McTaggart (1988, p11) who depict the single combined research cycle as illustrated in Figure 1.

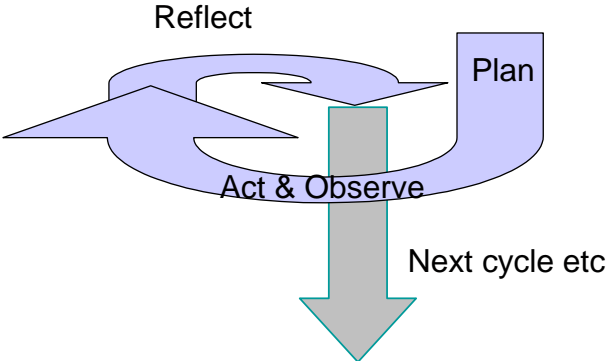


Figure 1 - Action Learning Cycle (Kemmis and McTaggart 1988, p11)

However, single cycle/spiral representations rely on the researcher ‘remembering’ to maintain dual focus on research and action. A situation which can be addressed by dual cycle action research models which provide improved rigour (McKay and Marshall 2001, p57), and “a ready reminder that reflection and learning are essential aspects of action research” (McKay and Marshall 2001, p57).

Dual cycle models are provided by a number of authors, including Rowley (2003, p133-134), Locke (2001, p14), Zuber-Skerritt and Perry (Zuber-Skerritt and Perry 2002, p175) and McKay and Marshall who describe action research comprising the dual cycles of problem solving interest and responsibilities (action/practice) and research interest and responsibilities (research/theory) (McKay and Marshall 2001, p46, p50).

The dual cycles provided by McKay and Marshall can be represented both graphically and in table-text form as per Figure 2 and Table 1 respectively.

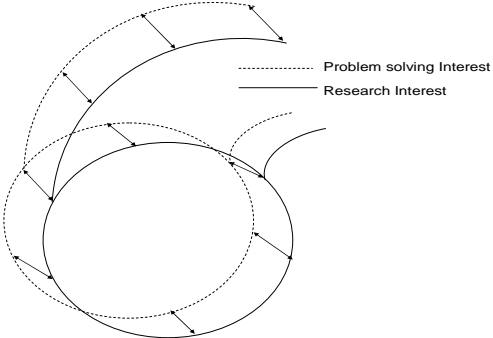


Figure 2 - Action research viewed as a dual cycle process (McKay and Marshall 2001, p52)

Table 1 - The problem solving interest and research interest in action research (adapted from McKay and Marshall 2001, p50-51)

Step	The problem solving cycle	The research interest cycle
1	Problem identification.	Research themes/interests/questions.
2	Reconnaissance/fact finding about problem context stakeholders etc.	Reconnaissance/fact finding in relevant literature.
3	Plan the problem solving activity.	Plan and design the research project to answer research questions, hypotheses etc.
4	Define the Action Steps	
5	Implement the Action Steps	
6	Reflect upon the problem solving efficacy of the actions	Reflect upon the efficacy of the intervention in terms of research interests.
7a	Amend the plan if further change is required and return to step 4.	Amend the plan and design further explanation and research as required and return to step 4.
7b	Exit, if outcomes are satisfactory.	Exit, if questions are satisfactorily resolved.

### 3.2 Action Researcher Role

Whereas “traditional researchers enquire into other people’s lives and speak about other people as data, action researchers enquire into their own lives and speak with other people as colleagues” (McNiff & Whitehead 2002, p15). So, by choosing to apply action research, the researcher is opting to become a participant in the research process, “working collaboratively with the other concerned and/or affected actors to bring about change in the problem context” (Checkland, Hult and Lennung as cited in McKay & Marshall 2001, p47). The level of actual true collaboration may vary, since all participatory research cannot be assumed to be genuinely collaborative, with all participants working together as equals (McNiff & Whitehead 2000, p217). Nevertheless, regardless of the actual level of true collaboration, action research can be considered to be participatory by definition, since there is no non-participatory form of action research (McNiff & Whitehead 2000, p217).

### 3.3 Action Research Data Collection

Action research is based upon the collection and collation of real world data (Earl-Slater 2002, p134). The data can be collected in one or more of many ways (Gummesson 2000, p118-123) and may comprise either or both hard and soft data, where hard data comprises statistics, financial accounts and reports and soft data is “gathered through observation, discussions and interviewing”. (Coughlan & Coughlan 2002, p231).

### 3.4 Key Action Research Challenges

As with all research methodologies, action research is not without its challenges which include those of the workplace learning environment and criticisms of action research as a form of

consultancy.

In general, and not specific to action research, the workplace learning environment poses challenges because ‘Learning in and through the workplace is not easy. Learners need to be able to manage and take forward their learning...to their daily work activities within an environment which is often hectic and unsystematic’ (Rhodes & Shiel 2007, p176).

In addition, action research is criticised for its perceived similarity to consultancy rather than a research methodology (McKay & Marshall 2001, p48-49). With critics alleging that “consultancy experience can be quite simply converted into research by dressing it up in academic guise” (Gummesson 2000, p10).

It is possible that some of the confusion between action research and consultancy can be attributed to both roles being “external helper(s) to the client system” (Coughlan & Coughlan 2002, p227) providing a form of “consultative process help” (Schein as cited in Coughlan & Coughlan 2002, p227) where the “helpers work in a facilitative manner to help the clients inquire into their own issues and created and implement solutions” (Schein as cited in Coughlan & Coughlan 2002, p227). However, upon closer examination, it can be considered that consultants are unlikely to develop new capabilities within their client organisations because this would jeopardise their income base. Whereas action research is committed to joint development of the researcher and the client-practitioner (Senge & Scharmer 2001, p241).

#### **4 MANAGERIAL EDUCATION AND ACTION RESEARCH**

Qualitative research methods such as action research are particularly well suited to management research because the management researcher needs to be able to draw upon a method that will be able to deal with a potentially uncertain and emergent research experience which is “just as complex as management itself” (Carter 1999, p1). Therefore, “the variability and flexibility of qualitative methods contribute(s) to their suitability for adaptation in enterprise research” (Gilmore & Carson 2007, p36). Indeed, action research has been linked to educating

management practitioners for decades (Dehler 2006, p637).<sup>1</sup>

However, as may be expected, incorporating action research into post graduate management research programs is not without its challenges for both the individual student and also the academic institution.

From the student's perspective, action researchers tend to be "doers" with a focus on the action part of action research, so they may find the rigour of academic research, writing and publishing particularly challenging (Zuber-Skerrit & Fletcher 2007, p414).

From an institutional perspective, obstacles remain in the form of university culture and rewards systems, (Bennis & O'Toole 2005, p96-98; Levin & Greenwood as cited in Dehler 2006, p664; Vermeulen cited in Markides 2007, p783; Welsh & Dehler 2007, p406, p418; Baker as cited in Whitehead 2005, p521)

So, as a consequence from the student's perspective, there are the additional challenges of insufficient action research thesis models and role models for postgraduate supervision and examination (Zuber-Skerrit & Fletcher 2007, p414).

## **5 THE ACTION RESEARCH CASE STUDY**

### **5.1 Introduction**

The AR case study described in this section is a first-person account of conducting doctoral level AR to satisfy the research requirements of the world's first Doctor of Project Management degree, offered by RMIT University, Melbourne (Nogeste 2006a).

The research study is described in terms of the research idea and question, research strategy and then by stepping through a series of five (5) AR cycles conducted according to McKay and Marshall's dual cycle action research methodology. The case study concludes with a description of the researcher's role and how the key challenges of the workplace learning environment and criticisms of action research as consultancy were addressed.

---

<sup>1</sup> And yet, according to Dehler (2006, p664) there has been a relative "dearth" of attention paid to action research (action learning and action science) in the management education literature, including the Journal of Management Education which had included only five (5) articles including any of these action research related terms between 1991 and 2006. Amongst the reasons proposed by Dehler for this being the case, is that "Generally speaking (U.S.-based) training in doctoral programs has systematically incorporated a paradigmatic bias toward positivism".

## 5.2 The Research Idea and Question

As intended by the DPM course design, a coursework project prompted the “research idea” (Saunders 2003) which was *to improve the way in which project stakeholders defined intangible project outcomes, including in terms of their aligned project outputs.*

The research idea led in turn, to the research question of *How to improve the way in which project stakeholders define and align intangible project outcomes with tangible project outputs ?*

Figure 3 illustrates the context and focus of the research idea, research question and corresponding research study (Nogeste 2006b).

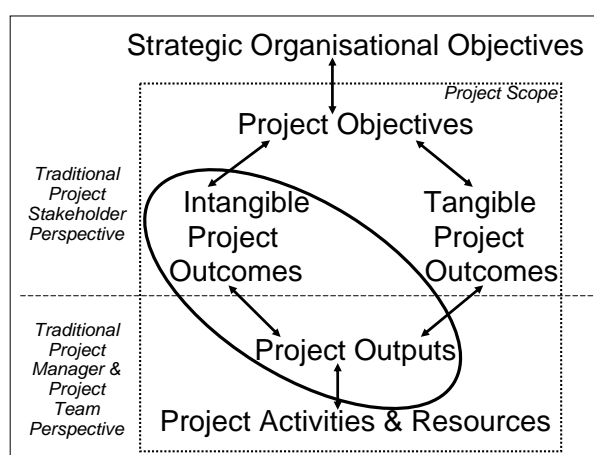


Figure 3 - The context and focus of the research idea, research question and corresponding research study (Nogeste 2006a)

## 5.3 Research Strategy

### 5.3.1 Overview

The research strategy designed to address the research question of *How to improve the way in which project stakeholders define and align intangible project outcomes with tangible project outputs ?* is illustrated in Figure 4. The strategy comprised the realist paradigm, a combination of inductive and deductive reasoning and an action research meta-methodology combined with case study research and grounded theory to collect data via individual and group meetings, group workshops and reference documentation.

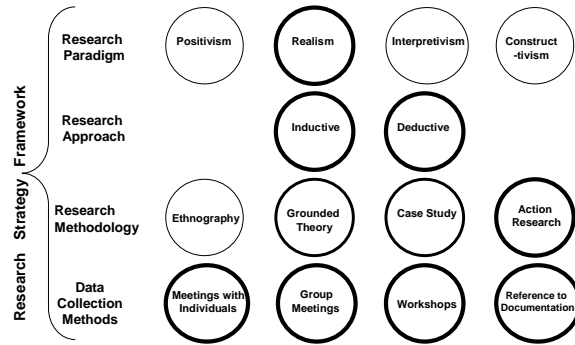


Figure 4 - Research Strategy Framework - Selected Paradigm, Approach, Methodology

## 5.4 The Action Research Cycles

### 5.4.1 Sampling Strategy

The sampling strategy used for the research study started with the researcher asking people within her professional network of contacts to help identify organisations that might be willing to participate in the planned research study. With the defined unit of analysis being *a group of diverse project stakeholders, predefined by the research client* and as such comprising a valid sample comprising “people, behaviours, events or processes” (Marshall and Rossman cited in Rocco 2003, p344).

The sampling strategy resulted in the following five (5) public sector (literal replication) cases as illustrated in Figure 5 :

1. Project ARP an Information Technology project at an Australian water utility (AWU);
2. Project Resolve an Information Technology project at the Victims Referral and Assistance Service (VRAS) (Department of Justice, State Government of Victoria, Australia);
3. The CYPRASS Project (Campaspe Young Persons Referral and Support Scheme) a youth crime prevention project managed by a multi-agency management committee, via an introduction from a state law enforcement agency;
4. The YFHS Project (Youth Friendly Health Services) a youth health promotion project coordinated by the Campaspe Primary Care Partnership (PCP) (north-central Victoria, Australia);
5. The ACLOs Feasibility Study (Aboriginal Community Liaison Officers) conducted by a

state law enforcement agency.

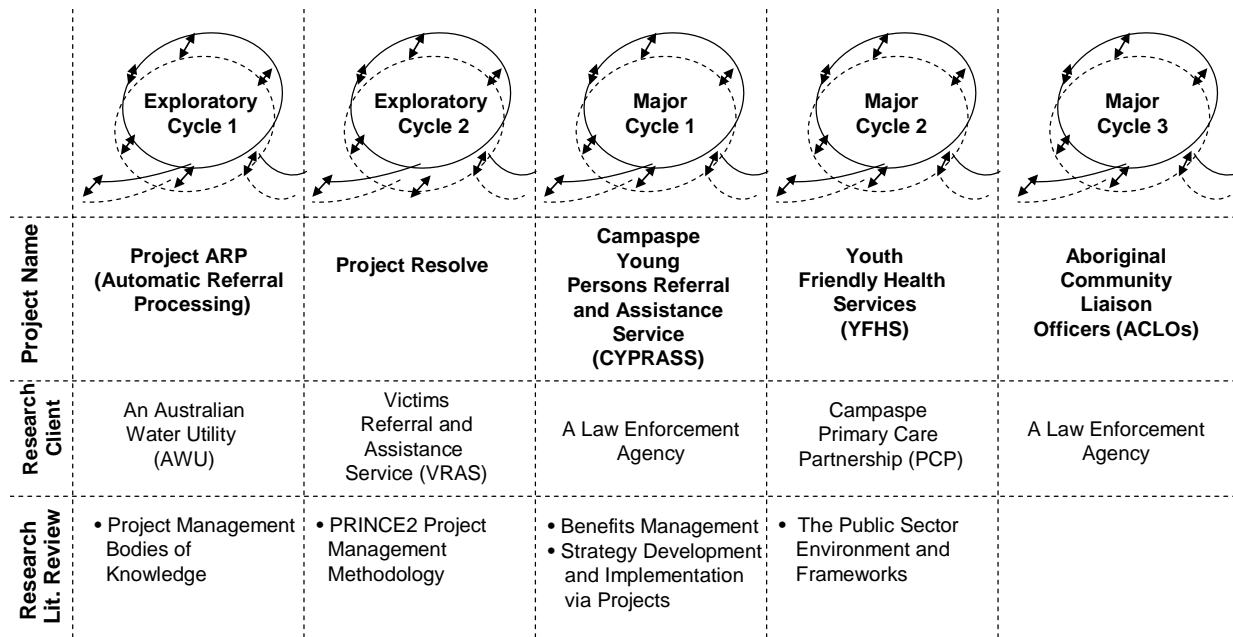


Figure 5 - Overview of the Action Research Cycles

The first two cycles are Exploratory AR Cycles and the latter three, Major AR Cycles, which is consistent with a doctoral level action research project needing to “progress through at least two or three major cycles to make a distinctive contribution to knowledge” (Zuber-Skerritt and Perry 2002). The need for a ‘handful’ of action research cases is also agreed to by Eisenhardt who describes a minimum of four (4) cases being required “to generate theory with some degree of complexity “(Eisenhardt 1989, p545).

In practice, each of the problem-solving projects was independent from the others, with Exploratory Cycles 1 and 2 running concurrently to some extent, as did Major Cycles 1, 2 & 3, placing the researcher’s personal resources under additional strain. The same resources that extended to the researcher maintaining a full-time paid workload (with vacation days taken for study purposes, as required).

## 5.5 The Exploratory Action Research Cycles

### 5.5.1 Exploratory Action Research Cycle 1 – The ARP Project

The problem-solving project for Exploratory AR Cycle 1 nominated by the AWU was Project ARP (Automatic Referrals Process), which comprised the development and implementation of an automated land development referrals processing system.



At the time of Exploratory AR Cycle 1 commencing, Project ARP had already been completed.

Whilst the researcher was somewhat surprised by the AWU nominating a completed project as the problem-solving project, the researcher was aware that retrospective action research was “acceptable [...] when the written case is used as an intervention into the organisation in the present”. Because, “in such a situation the case performs the function of a “learning history” and is used as an intervention to promote reflection and learning in the organisation” (Kleiner and Roth cited in Coughlan & Coghlan 2002).

The practice problem for the ARP Project was defined as *Identify and define Project ARP intangible outcomes, with a view to learning how to repeat the successful delivery of intangible project outcomes on current and future AWU information technology projects.*

### **5.5.2 Exploratory Action Research Cycle 2 – Project Resolve**

The problem-solving project for Exploratory AR Cycle 2 nominated by the Director of the Victims Referral Assistance Service (VRAS) was Project Resolve, an information technology project using the PRINCE2 project management methodology to upgrade the two key databases used by Victim Service Officers (VSOs) staffing the Victims Helpline to record caller specific information for the approximately 55,000 calls taken per annum (Victims Referral and Assistance Service 2002).

The practice problem for Project Resolve was defined as *Define and document Project Resolve intangible project products, using PRINCE2 Product Descriptions.*

### **5.5.3 Dual Cycle Action Research**

Both Exploratory AR Cycles were conducted according to McKay and Marshall’s dual cycle action research methodology.

The practice problem was identified for each problem-solving project as described above, with the research question of *How to improve the way in which project stakeholders define and align intangible project outcomes with tangible project outputs ?* being the same for both Exploratory AR Cycles.

In both Exploratory AR Cycles, Reconnaissance was conducted in parallel for both the practice problem and the research interest. For the practice problems this involved reading documents specific to the relevant project organisation. For the research interest this involved broadening the literature review.

In both Exploratory AR Cycles, planning and defining the action steps to address the practice problems comprised the planning of structured interviews/meetings based on the categories of intangibles defined by the UK Government Future and Innovation Unit (Future and Innovation Unit 2001). The parallel planning of the research interest involved defining the format of the interviews/meetings, data collection forms and the resultant report.

In both Exploratory AR Cycles, the action steps were then implemented to jointly address the practice problem and the research interest. With the result being that the interview/meeting format had to be changed after the first interviews/meetings because it did not fit with the way stakeholders defined intangible project outcomes. The making of these changes was justified based on the reliance of exploratory research upon a researcher's willingness to change direction "as a result of new data that appears and new insights that occur" (Saunders 2003, p97), without undue concern for the original plan (Kemmis & McTaggart 1992). In addition, considerably more work was required than expected, to document the interview/meeting results in a format that would support the problem-solving cycle. As a result, the documenting of interview results for both Exploratory AR Cycles took too long to be of practical use.

For Exploratory AR Cycle 1, the ARP Project, despite the impractically long time to deliver the interview/meeting results, the Australian Water Utility considered the practice problem to have been solved. In terms of addressing the research interest, whilst project stakeholders had little if any problem articulating their expectations regarding intangible project outcomes, the time required to write-up the interviews took too long to be practical. So, the researcher considered the research interest not to have been addressed. Instead it was considered that the action plan required considerable revision.

For Exploratory AR Cycle 2, the Project Resolve Project Manager considered the practice

problem of using PRINCE2 Product Descriptions to document intangible project products to have been solved, however in too long a time to be of practical use. In terms of addressing the research interest, whilst project stakeholders had little if any problem articulating their expectations regarding intangible project products, the time required to write-up the stakeholder meetings took too long to be practical and the action plan did not adequately capture the prioritisation of intangible PRINCE2 Product Descriptions. Therefore it was considered that the process for facilitating project stakeholders' definition of intangible project outcomes required considerable revision.

These exploratory action research results are consistent with the action research literature which suggests that action researchers should not expect "immediate and substantial 'success'" from their initial stages of reflection. Instead they should be prepared to learn what needs to be done to deliver a successful result and plan to act on these learnings (Kemmis & McTaggart 1992, p87). With it being "quite usual to make substantial changes" (Kemmis & McTaggart 1992, p89) in light of actual events (Brook 2004, p6), during the early cycles of action research, with a "firmer sense of direction" developing through the successive cycles of action research (Kemmis & McTaggart 1992, p89).

## **5.6 The Major Action Research Cycles**

### ***5.6.1 Major Action Research Cycle 1 – The CYPRASS Project***

The problem-solving project for Major AR Cycle 1 nominated by the Divisional Commander of the Community and Cultural Division of a state law enforcement agency was the Campaspe Young Persons Referral and Support Scheme (CYPRASS) project. The core of the CYPRASS Project is a referral process which is initiated by law enforcement agency representatives working in the Shire of Campaspe, when a young person comes to their notice. With the permission of the young person and/or their guardian, the law enforcement agency representative completes a standard Referral Form identifying the young person's "at risk" profile. Based on this profile, the law enforcement agency representative refers the young person to a local agency capable of helping address the "at risk" factors. The CYPRASS project is governed by a multi-agency Management Committee comprising representatives from the state law enforcement

agency, the Shire of Campaspe, government and non-government social welfare and legal aid agencies, local schools, employment brokers and community projects.

The practice problem for the CYPRASS Project was defined as *Identify and define CYPRASS Project intangible outcomes so that the delivery of these outcomes can be integrated into project delivery.*

### **5.6.2 Major Action Research Cycle 2 - The Youth Friendly Health Services (YFHS) Project**

The problem-solving project for Major AR Cycle 2 nominated by the Campaspe Primary Care Partnership (PCP) was the Youth Friendly Health Services (YFHS) project; for which the objective was to “Develop youth friendly services and enhance service provider skills in working with young people” (Campaspe Primary Care Partnership 2002).

The practice problem for the YFHS Project was defined as *Identify and define intangible YFHS project outcomes and related tangible project outputs.*

### **5.6.3 Major Action Research Cycle 3 – The ACLOs Feasibility Study**

The problem-solving project for Major AR Cycle 3 nominated by the same Divisional Commander of the Community and Cultural Division of a state law enforcement agency (as for Major AR Cycle 1) was the Aboriginal Community Liaison Officers (ACLOs) Feasibility Study. The purpose of the ACLOs Feasibility Study was to scope the work required to employ, train and support Aboriginal Community Liaison Officers (ACLOs) within each of the law enforcement agency’s operating regions.

The practice problem defined for the ACLOs Feasibility Study was *Identify and define intangible ACLOs project outcomes and related tangible project outputs, for inclusion in the ACLOs Feasibility Study report.*

### **5.6.4 Dual Cycle Action Research**

Consistent with the Exploratory AR Cycles, all three Major AR Cycles were conducted according to McKay and Marshall’s dual cycle action research methodology.

The practice problem was identified for each problem-solving project as described above, with the research question of *How to improve the way in which project stakeholders define and align*

*intangible project outcomes with tangible project outputs ?* remaining the same for all three Major AR Cycles.

For Major AR Cycles 1 and 2, Reconnaissance of the practice problems involved reading documents specific to the relevant project organisation. Parallel reconnaissance of the research interest involved broadening the literature review.

For Major AR Cycle 3, reconnaissance of the practice problem comprised meetings with representatives of the law enforcement agency. No additional reconnaissance of the research interest was required for Major AR Cycle 3.

For Major AR Cycle 1, the action steps to solve the practice problem did not need to be defined as part of this AR cycle, since the action plan comprised the replanning done at the completion of the Exploratory AR Cycles. The action steps for the research interest comprised the revising of the Outcome Profile™ template to include additional fields of information identified as a result of the broadened literature review.

For Major AR Cycle 2, neither the action steps to solve the practice problem nor the research interest needed to be defined as part of this AR cycle, since the action plan was a repeat of that used for Major AR Cycle 1.

For Major AR Cycle 3, planning and defining the action steps to address the practice problem and research interest comprised splitting responsibility for workshop facilitation and documentation between the researcher and the assigned ACLOs Feasibility Study Project Officer.

For Major AR Cycles 1, 2 and 3, the action steps were then implemented to jointly address the practice problem and the research interest. With the result being that the practice problems were solved and the research interest addressed. With the additional observation being made for Major AR Cycle 3, that the researcher was able to identify and extract the priority intangible outcomes from the meeting outcomes report (despite not attending the meetings) demonstrating that it is possible to identify, extract and document intangible project outcomes as Outcome

Profiles and construct a cross-reference tables from a document i.e. as a ‘desk-check’ exercise.

### **5.6.5 Summary of Major AR Cycles**

The researcher used a dual cycle approach comprising the two (2) parallel cycles of problem solving and research to help organisations solve the problem of defining and aligning intangible project outcomes with tangible project outputs, whilst simultaneously advancing the practice of project management.

The problem solving value of Major AR Cycles 1, 2 and 3 was validated by the organisations’ responses to the value provided to the practice problems along with additional requests for assistance which took the form of :

- The Campaspe PCP asking the researcher to integrate the action research results into the existing health promotion planning approach and templates and to conduct a half (½) day educational workshop for Campaspe PCP service providers introducing them to the use of the revised planning approach and templates;
- The state law enforcement agency inviting the researcher to be a speaker at a Senior Management Conference and to also assist with the planning and delivery of conference workshops for members of senior management to put the step-wise approach for identifying, prioritising and defining intangible project outcomes into practice (using a predefined crime prevention case study).

In addition to these qualitative forms of validation, the researcher’s involvement in the state law enforcement agency conference provided the opportunity to use pre- and post-workshop surveys to quantitatively validate the step-wise approach for identifying, prioritising and defining intangible project outcomes. The results of these surveys indicated that conference attendees’ exposure to the researcher’s presentation and participation in conference workshops had caused a statistically significant shift in conference attendees’ confidence in identifying, prioritising and defining intangible project outcomes.

## **5.7 Researcher Role**

For this research study, the researcher adopted the role of ‘external researcher’, a researcher

external to the research client organisation. A situation considered acceptable “as long as the external researcher and the internal clients share and complement each other’s experiences, skills and competencies to achieve problem solving, knowledge expansion and learning” (Zuber-Skerritt & Perry 2002, p177).

The researcher role changed during the course of the five (5) action research cycles. With reference to Figure 6, starting off as an Observer as Participant for the two Exploratory AR Cycles, changing to Participant as Observer for the three Major AR Cycles.

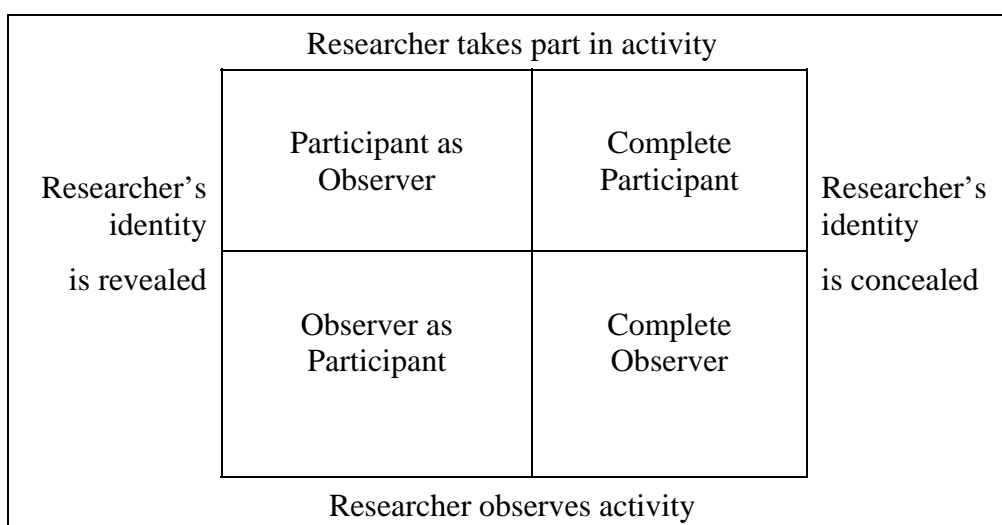


Figure 6 - Typology of participant observer researcher roles (Saunders 2003, p224)

The change in the balance of participation/observation during the course of a research study is consistent with Yin’s comments that participant observers can assume a number of roles within the context of case study research, depending on the level of participation and observation (Yin 1994, p87).

## 5.8 Facing Key Action Research Challenges

### 5.8.1 The Workplace Learning Environment

The researcher facilitated workshops in their role as observer participant. Action research is heavily reliant on research participants’ available time, so the researcher as facilitator is an accepted part of action research. Since many peoples’ working time is wholly consumed by existing everyday activities, so it may be difficult for them to participate in action research as full partners. Therefore, “there is a role for researchers as facilitation-researchers; creating “opportunities for everyday research” (McClintock, Ison & Armson 2003, p721) “where understandings can emerge” (McClintock, Ison & Armson 2003, p723).

Driven by stakeholders' combined demands for participative and transparent decision-making (McClintock, Ison & Armson 2003, p729), it can be expected that there will be an increased demand for researcher-facilitators to "act as facilitators of the action and reflection within an organisation" (Coughlan & Coughlan 2002.p227) "helping stakeholder groups learn about their own learning" (Roling and Woodhill quoted in McClintock, Ison & Armson 2003, p729).

### **5.8.2 *Research or Consultancy***

As described above (refer Section 4), it is alleged that action research is more a form of consultancy than research (McKay & Marshall 2001, p48-49).

However, based on the researcher's experience of planning, implementing, and reporting upon this research study, this is simply not true. Having been a consultant for more than twenty (20) years, the researcher is highly experienced in the practice of professional consulting and at no prior time have they been required to dedicate the breadth and depth of personal and professional resources and resourcefulness demanded by the research study. As an example, any references to methodology in the context of a consulting engagement have simply been descriptions of the methodology applied, not an academic justification of the underlying methodological theory (Coughlan & Coughlan 2002, p237). Whilst the cycles of action research bear similarities to some of the researcher's consulting engagements, the action research regime required of the research study has been conducted in a far more systematic and rigorous manner in order to generate joint research and practice outcomes (Kemmis & McTaggart 1992, p10).

## **6 CONCLUSIONS**

Driven by the knowledge economy the current dichotomy of university based learning and workplace practice needs to change; in terms of both the production of practically relevant research and the transfer of research results between academia and managers. Universities need to increasingly complement conventional approaches to managerial learning with approaches that acknowledge and support the redefined relationship between higher education and work, through to the knowledge workers undertaking the work of the knowledge economy, only some of whom are located within university settings.



As illustrated by the first-person case study included in this paper, action research provides educators and researchers including post graduate students a means of addressing practice problems and research interests in a rigorous manner; and therefore contributing to both the production and transfer of relevant management knowledge.

In terms of its potential application, it is considered that the case study will guide and inspire management educators and researchers, including post graduate students to seriously consider the inclusion of AR in their programs of study. So that they too may share in the AR experience which “has the potential to be more challenging, exciting, enjoyable, practical, educational and more personally enriching because it not only involves *research*...but also *action*” (Zuber-Skerritt & Fletcher 2007, p431).

## 7 REFERENCES

- Altrichter, H, Kemmis, S, McTaggart, R & Zuber-Skerritt, O 2002, 'The concept of action research', *The Learning Organization*, vol. 9, no. 3, pp. 125-31.
- Atkinson, R 2008, 'Excellence in teaching and learning project management', *International Journal of Project Management*, vol. 26, no. 3, pp. 221-2.
- Bennis, WG & O'Toole, J 2005, 'How Business Schools Lost Their Way', *Harvard Business Review*, vol. 83, no. 5, pp. 96-104.
- Berggren, C & Soderlund, J 2008, 'Rethinking project management education: Social twists and knowledge co-production', *International Journal of Project Management*, vol. 26, no. 3, pp. 286-96.
- Brook, PWJ 2004, 'Constituents and their expectations: Towards a critical-pragmatic theory of Information Systems project management', Doctor of Philosophy thesis, University of Western Sydney.
- Campaspe Primary Care Partnership 2002, *Community Health Plan 2002*, Campaspe Primary Care Partnership, viewed 31st August 2003, <[http://hnb.dhs.vic.gov.au/rrhacs/phkb/rwpgslib.nsf/Graphic+Files/files\\_pcp\\_Campaspe/\\$file/HP\\_Campaspe\\_Full\\_Jul02.pdf](http://hnb.dhs.vic.gov.au/rrhacs/phkb/rwpgslib.nsf/Graphic+Files/files_pcp_Campaspe/$file/HP_Campaspe_Full_Jul02.pdf)>.
- Carter, S 1999, 'Anatomy of a Qualitative Management PhD. Part Two - Getting Finished', *Management Research News*, vol. 22, no. 12.
- Cicmil, S, Williams, T, Thomas, J & Hodgson, D 2006, 'Rethinking Project Management : Researching the Actuality of Projects', *International Journal of Project Management*, vol. 24, pp. 675-86.
- Coghlan, D 2007, 'Insider action research: opportunities and challenges', *Management Research News*, vol. 30, no. 5, pp. 335-43.
- Coughlan, P & Coghlan, D 2002, 'Action research for Operations Management', *International Journal of Operations and Production Management*, vol. 22, no. 2, pp. 220-40.
- Dehler, GE 2006, 'Using Action Research to Connect Practice to Learning: A Course Project for Working Management Students', *Journal of Management Education*, vol. 30, no. 5, pp. 636-69.
- Dick, B 2002, 'Postgraduate programs using action research', *The Learning Organization*, vol. 9, no. 4, pp. 159-70.

- Earl-Slater, A 2002, 'The superiority of action research ?' *British Journal of Clinical Governance*, vol. 7, no. 2, pp. 132-5.
- Eisenhardt, KM 1989, 'Building Theories from Case Study Research', *Academy of Management Review*, vol. 14, no. 4, pp. 532-50.
- Future and Innovation Unit 2001, *Creating Value from Your Intangible Assets*, Department of Trade and Industry (UK), London, UK.
- Gilmore, A & Carson, D 2007, 'Qualitative methodologies for enterprise research', in D Hine & D Carson (eds), *Innovative Methodologies in Enterprise Research*, Edward Elgar, Cheltenham, UK, pp. 33-53.
- Gummesson, E 2000, *Qualitative methods in management research*, 2 edn, Sage Publications Inc., Thousand Oaks.
- Kemmis, S & McTaggart, R 1992, *The Action Research Planner*, 3 edn, Deakin University Press, Victoria, Australia.
- Klenowski, V & Lunt, I 2008, 'Enhancing learning at doctoral level through the use of reflection ?' *Assessment & Evaluation in Higher Education*, vol. 33, no. 2, pp. 203-17.
- Markides, C 2007, 'In search of ambidextrous professors', *Academy of Management Journal*, vol. 50, no. 4, pp. 762-8.
- McClintock, D, Ison, R & Armson, R 2003, 'Metaphors for Reflecting on Research Practice: Researching with People', *Journal of Environmental Planning and Management*, vol. 46, no. 5, pp. 715-31.
- McKay, J & Marshall, P 2001, 'The dual imperatives of action research', *Information Technology & People*, vol. 14, no. 1, pp. 46-59.
- McNiff, J & Whitehead, J 2000, *Action research in organisations*, Routledge, London, UK.
- 2002, *Action research : principles and practice*, 2 edn, RoutledgeFalmer, London, UK.
- McWilliam, E, Taylor, PG, Thomson, P, Green, B, Maxwell, T, Wildy, H & Simons, D 2002, *Research Training in Doctoral Programs - What can be learnt from professional doctorates ?*, Commonwealth of Australia, viewed 16th June 2008, <[http://www.dest.gov.au/archive/highered/eippubs/eip02\\_8/default.htm](http://www.dest.gov.au/archive/highered/eippubs/eip02_8/default.htm)>.
- Neumann, R 2005, 'Doctoral Differences : Professional doctorates and PhDs compared', *Journal of Higher Education Policy and Management*, vol. 27, no. 2, pp. 173-88.
- Nogeste, K 2006a, 'Development of a Method to Improve the Definition and Alignment of Intangible Project Outcomes and Tangible Project Outputs', RMIT University.
- 2006b, 'Development of a Method to Improve the Definition and Alignment of Intangible Project Outcomes with Tangible Project Outputs', RMIT University.
- Nogeste, K & Walker, DHT 2008, 'Development of a method to improve the definition and alignment of intangible project outcomes and tangible project outputs', *International Journal of Managing Projects in Business*, vol. 1, no. 2, pp. 279-87.
- Olsen, OE & Lindoe, P 2004, 'Trailing research based evaluation ; phases and roles', *Evaluation and Program Planning*, vol. 27, pp. 371 - 80.
- Perry, C & Rao, S 2007, 'Action research for enterprise research', in D Hine & D Carson (eds), *Innovative Methodologies in Enterprise Research*, Edward Elgar, Cheltenham, UK, pp. 124-36.
- Raelin, JA & Coghlan, D 2006, 'Developing Managers as Learners and Researchers : Using Action Learning and Action Research', *Journal of Management Education*, vol. 30, no. 5, pp. 670-89.
- Reason, P & Bradbury, H 2001, 'Introduction : Inquiry and Participation in Search of a World Worthy of Human Aspiration', in P Reason & H Bradbury (eds), *Handbook of Action Research, Participative Inquiry and Practice*, Sage Publications, Thousand Oaks, pp. 1-14.
- 2008, *Handbook of action research*, Sage Publications, viewed 18th June 2008, <[http://www.bath.ac.uk/carpp/publications/pdf/handbook\\_of\\_action\\_research.pdf](http://www.bath.ac.uk/carpp/publications/pdf/handbook_of_action_research.pdf)>.
- Rhodes, C & Garrick, J 2003, 'Project-based learning and limits of corporate knowledge',

- Journal of Management Education*, vol. 27, no. 4, pp. 447-71.
- Rhodes, G & Shiel, G 2007, 'Meeting the needs of the workplace and the learner through work-based learning', *Journal of Workplace Learning*, vol. 19, no. 3, pp. 173-87.
- Rocco, TS 2003, 'Shaping the Future : Writing Up the Method on Qualitative Studies', *Human Resource Development Quarterly*, vol. 14, no. 3, pp. 343-9.
- Saunders, M 2003, *Research methods for business students*, 3 edn, Pearson Education Limited, Harlow, England.
- Senge, P & Scharmer, O 2001, 'Community Action Research: Learning as a Community of Practitioners, Consultants and Researchers', in P Reason & H Bradbury (eds), *Handbook of Action Research - Participative Inquiry and Practice*, Sage Publications Inc, Thousand Oaks, pp. 238-49.
- Shapiro, DL, Kirkman, BL & Courtney, HG 2007, 'Perceived causes and solutions of the translation problem in management research', *Academy of Management Journal*, vol. 50, no. 2, p. 249+.
- Tennant, M 2004, 'Doctoring the knowledge worker', *Studies in Continuing Education*, vol. 26, no. 3, pp. 431-41.
- Victims Referral and Assistance Service 2002, *A Model for Early Intervention and Integrated Services for Victims of Crime*, Victims Referral and Assistance Service., Melbourne, Australia.
- Walker, DHT 2008, 'Reflections on developing a project management doctorate', *International Journal of Project Management*, vol. 26, pp. 316-25.
- Welsh, MA & Dehler, GE 2007, 'Wither the MBA? Or the Withering of the MBAs?' *Management Learning*, vol. 38, no. 4, pp. 405-23.
- Whitehead, D 2005, 'Project management and action research : two sides of the same coin ?' *Journal of Health Organisation and Management*, vol. 19, no. 6, pp. 519- 31.
- Yin, RK 1994, *Case study research : design and methods*, 2 edn, Sage Publications Inc., Thousand Oaks, California, USA.
- Zuber-Skerrit, O & Fletcher, M 2007, 'The quality of an action research thesis in the social sciences', *Quality Assurance in Education*, vol. 15, no. 4, pp. 413-36.
- Zuber-Skerritt, O & Perry, C 2002, 'Action research within organisations and university thesis writing', *The Learning Organization*, vol. 9, no. 4, pp. 171-9.