I and we: towards an understanding of collaborative educational research contribution

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I and we:
Towards an understanding of collaborative educational research contribution

By
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PhD

2013

Coventry University

The work contained within this document has been submitted by the student in partial fulfilment of the requirement of their course and award.
I and we:
Towards an understanding of collaborative educational research contribution

V.C. King

A critical overview document and portfolio of evidence submitted in partial fulfilment of the University’s requirements for the degree of Doctor of Philosophy

2013

Coventry University
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Abstract

The research outputs within this portfolio demonstrate sustained inquiry over seven years which has added progressively to the understanding of collaborative educational research contribution. This research developed out of my work with the iPED (*inquiring pedagogies*) research network which I co-founded in 2005. The portfolio contextualizes and critiques four journal articles and two peer-reviewed book chapters published between 2007 and 2012. Through these studies of educational research at Coventry University, I make a significant and original contribution to knowledge, firstly by synthesizing evidence of the facilitators, drivers and barriers to contribution within collaborative educational research; and secondly by offering three new models which help to make the contribution of collaborative educational research more transparent. The *Influence Wheel* provides a visualization of research contributions as an interactive image. The model can also reveal gaps in contribution, and can be adjusted to display the aspects of contribution of interest to an intended audience. *Product-Based Analysis* provides a holistic view of the strategic drivers, goals and interim outcomes of research. This model can be used to analyze, develop, track or communicate a research strategy. Finally, the *Enhanced Three-Phase Model* articulates the social and cultural transitions through which a collaborative educational research community may evolve. Used alongside an analysis framework I devised using themes from works of fiction, this model exposes the problems and opportunities a collaboration community may encounter. These three tools exemplify my creativity in devising new ways of visualizing information, an approach adapted from the field of management where graphics are commonly used to supplement text. Methodologically, all the portfolio outputs employ insider inquiry strategies which capture different perspectives on the research context. Conceptually, all the outputs offer social representations of collaborative educational research. These studies offer questions and interim findings which provide opportunities for future research.
Acknowledgements

I acknowledge and am grateful for the help and encouragement of my portfolio mentor, Professor David Morris; my critical friend, Professor Lynn Clouder; my husband, Barry King; colleagues from the iPED Research Network; and (a long way back) Freda M. Hills, Headteacher of Roskear Junior School, Cornwall.

Finally, I acknowledge that some of the thinking underlying this critical overview has contributed to a recent article (King 2013) which developed alongside it.
Dedication

In memory of my mother

Joan Roberte McCay
BSc MRCVS
1916–2006
Introduction

This critical overview is written in three parts. Part 1 provides an autobiographical context which introduces the researcher and her areas of interest. Part 2 presents, evaluates and synthesizes the contribution of each of six selected outputs. Part 3 offers critical reflections on my development as a research practitioner and a discussion of related and future work which supports the research development of less experienced colleagues.

The portfolio evidences progression from joint authorship of outputs to sole-authored journal articles. The four journal articles and two edited book chapters demonstrate sustained inquiry over the years 2006-2012 into collaborative educational research. This research developed out of my work with the iPED (inquiring pedagogies) research network which I co-founded at Coventry University in 2005, and was informed by iPED’s local, national and international collaborations.

Within the portfolio, I introduce three innovative and practical techniques which I developed to support the understanding of collaborative educational research and which can be used to explore individual and group contribution:

1. The **Influence Wheel** – presented and critiqued in **OUTPUT 4**;

2. **Product-Based Analysis** (PBA) – presented and critiqued in **OUTPUT 5**;

3. An enhancement to the **Three-Phase Model of educational research impact**  
   (Saunders et al. 2008) – presented and critiqued in **OUTPUT 6**.
Aim and objectives

The primary aim of this portfolio is to show how my work has added to our understanding of collaborative educational research.

This is achieved through the following objectives:

1. Explore the role of educational research within the higher education (HE) and institutional contexts [OUTPUTs 1-6];

2. Offer new models which help to illuminate the contribution of collaborative educational research [OUTPUTs 4, 5 and 6];

3. Synthesize evidence of the facilitators, drivers and barriers to individual contribution within collaborative educational research [OUTPUTs 1-6];

4. Explore areas for potential future research into individual and collaborative educational research contribution [OUTPUTs 1-6].
Chronological list of outputs


Also selected for inclusion in:


1 It was the custom amongst these authors to list contributors alphabetically unless exceptional contribution was to be acknowledged, as in OUTPUT 1.
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PART 1: THE RESEARCHER AND HER AREAS OF INTEREST
1.1 Autobiographical context for the portfolio of evidence

In this section, I review the origins of my research interests and my current focus.

1.1.1 Research roots

I became an academic by chance. In 1989, enquiring into the possibility of enrolling on an MSc in IT (Information Technology) for Management which would enhance my career as a consultant in the IT industry, I was instead encouraged to teach part-time on the course. I so much enjoyed lecturing, that I soon applied for and secured a full-time post. Here, I found outlets for my motivational skills with my students and for my creativity in my teaching. I also became an effective admissions tutor and course leader by standardizing and automating messy paper-based processes. In 1997, I volunteered for secondment to Coventry University’s Teaching, Learning and Assessment Taskforce led by Professor Liz Beaty, Dr Andy Syson and Dr (now Professor) Glynis Cousin. Over the next three years, I undertook and disseminated action research (Lewin 1946) into HND student motivation, and inquiries into the institutional implementation of virtual learning environments. I enriched my educational research by employing the data visualization techniques I regularly used in my IT management teaching and practice. For example, I created a web-based ‘league table’ which captured positive study approaches amongst HND group project students (KING 1998). Following this secondment, I was promoted to Principal Lecturer and subject leader of the Information Systems group. To extend my own and my team’s research horizons, I co-supervised one successful PhD and supported individuals’ research activities; encouraged academic exchange through research seminars; became actively involved with our PgC in Teaching and Learning and my HE Academy Subject Centre network; and fed back to my colleagues lessons learned as external examiner on masters’ and undergraduate courses in the UK and overseas. I also gained insight through collaboration on a major Leonardo-funded project\(^2\) (2003-2005) which provided empirical data for OUTPUT3. These activities contributed to my appointment as a Pedagogical Research Fellow in the Centre for Higher Education

\(^2\) Online work-based learning project ‘Diffusion de l’Entreprise en Ligne pour la Formation des Étudiants Européens’ (DELFEE) led by Université de Marne la Vallée, France.
Development (CHED) at Coventry University in 2005.

My early peer reviewed papers addressed e-learning issues, viewing them through conceptual frameworks from the wider field of management. For example, in KING (2003)\(^3\), I proposed a systematic approach to the introduction of institution-wide e-learning which took account of the diverse needs and expectations of stakeholders; in KING (2004)\(^4\), I drew on the Kano model of product quality (Kano 1984) to build the case for an enriched learning space which would ‘delight’ students and create a wide ‘zone of tolerance’ to any shortcomings they might encounter in IT or administrative support.

1.1.2 Portfolio focus

The research presented in this portfolio develops and crystallizes thinking begun during my secondment as Pedagogical Research Fellow at Coventry University (2005-2007) under Professor Ray Land and, subsequently, Professor Paul Blackmore. The main aims of this role were to consolidate and enhance the University’s existing piecemeal educational research. I worked in partnership with two fellow secondees. Our establishment of the iPED research network provided a much-needed focus for educational research within the University and the means to engage with external peers. Our posts were financed by the University’s allocation of the Teaching Quality Enhancement Fund. Our activities were subsequently supported by funding awarded to iPED as one of the University’s founding Applied Research Centres created under the applied research strategy (Marshall 2005).

This portfolio represents a synthesis of evidence and theory from educational, organizational and management research. My contributions to iPED were innovative and pedagogical as well as research-focused. I acted as convenor for iPED’s international conferences (2006-2010), generating approximately £100,000 in external income; lead edited a book\(^5\) involving 44 authors from the USA, Australia and Europe, and lead edited

\(^3\) Cited by Scanniello (2004) and Costagliola et al. (2005)
\(^4\) Cited by Martínez (2005)
a journal special issue\(^6\) with 65 participants (editors, authors and peer reviewers) drawn from fifteen countries. For each of these projects, I introduced content management and online peer-review software. I also provided developmental workshops for colleagues and undertook one-to-one peer mentoring. iPED became an international network of 348 individuals in 24 countries of whom 53 were Coventry University employees. My research has been shaped through involvement with iPED, enriched by observation of others’ responses to our activities and enhanced through reflexive critique.

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1.2 Issues underlying individual and group collaborative educational research contribution

This section introduces the issues underlying the major themes covered by this portfolio of research. In each case, it draws on evidence from Coventry University, and indicates how the theme relates to the portfolio outputs. Coventry University is used as an exemplar HE institution (HEI) here and in the portfolio of outputs, providing a specific context from which the reader may draw comparisons with other HEIs with which they are familiar. As a post-92 English university with aspirations to develop its research profile and a ‘critical mass’ of researchers, Coventry typifies a number of its competitors. Elsewhere, while research norms may be quite different, some of the challenges and tensions within collaborative educational research exposed in these studies may still resonate.

1.2.1 Locating ‘educational research’

The nature and scope of educational research is unclear. The UK Research Excellence Framework (REF) gives the following descriptor:

“Research in education is multi-disciplinary and is closely related to a range of other disciplines with which it shares common interests, methods and approaches. This diversity of content and methodology requires the sub-panel to be flexible in setting out the boundaries of work relevant to the REF”

(REF 2012b: 62)

Oancea (2005) suggests that educational research is conceptualized differently according to our knowledge of the field. In the UK, Research into Higher Education Abstracts (Visser-Wijnveen, and van der Rijst 2012: i) which regularly surveys around 140 relevant international journals, groups selected abstracts under eight headings7. Tight (2012: 7) suggests his own eight major themes and issues in higher educational research8 but

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7 national systems and comparative studies, institutional management, curriculum, research, students, staff, finance and physical resources, and contributory studies

8 teaching and learning; course design; the student experience; quality; system policy; institutional management; academic work; and knowledge and research
asserts that methodological approaches, theoretical frameworks and levels of analysis introduce additional dimensions of difference. Experience of the field must also play a part in our conceptualization. For example, Macfarlane (2012: 129) visualizes educational research as an epistemologically fragmented archipelago of separate islands set in a ‘Sea of Disjuncture’ while Clegg (2012) sees academic developers, discipline-based educational researchers and HE researchers as separate but adjoining communities of practice (CoPs) (Lave, and Wenger 1991, Wenger 1998, 2000).

As editor of the iPED international conference proceedings, the iPED book and iPED’s journal special issue, I recognize both this diversity and these divisions. iPED excluded schools’ research from its remit, but was otherwise open to research which the authors themselves viewed as educational. Blackmore (2009: 3) suggests that iPED took an “academic practice” view of research which acknowledged the interconnected diversity of HE activities. Our edited book (iPED Research Network 2009) captured the three main themes within the iPED research community’s areas of interest (Responding to Complexity, Transforming Academic Identities and Pedagogy and Practice) which built on Coventry’s strengths in e-learning research and evaluation. Four of the outputs within this portfolio could be categorized under Responding to Complexity (OUTPUTs 1, 2, 4 and 5) and the remaining two under Transforming Academic Identities (OUTPUTs 3 and 6). In this way, they help to explore the role of collaborative educational research within the HE and institutional contexts (Objective 1).

The value of educational research has long been debated. Becher (1994: 154), drawing on Biglan (1973), placed education in his lowest category of research since, as a ‘soft-applied’ field, it failed to build theory cumulatively like the ‘hard-pure’ sciences, or holistically like the ‘soft-pure’ humanities, or purposively like the ‘hard-applied’ technologies; instead, he saw educational research as largely focused on practice and procedures. However, Trowler (2012a) argues that these distinctions between disciplines were generalizations which ignored researchers’ social and cultural context; while Clegg (2012) suggests that some parts of educational research have evolved away from others under the influence of ‘soft-pure’ disciplines like psychology and sociology. In the UK, arguments around the validity of educational research were debated in the Tooley
Report (Tooley, and Darby 1998) and its subsequent refutation (J. Clark 2000, Hodkinson 1998). Pedagogical research has been particularly disparaged. Kaestle (1993), Bridges (1999), Mortimore (2000), Burkhardt and Schoenfeld (2003), and Whitty (2006) each found its outputs parochial and lacking in generalizability, while Pollard and Oancea (2010), and Charles Clark (2011) rose to its defence. Oancea (2005: 167) asserted that individuals’ research stances and choices contributed to the characterization of their educational research outcomes as “non-reliable and inconclusive”. Tight (2010) affirms that the small-scale qualitative studies still favoured by many educational researchers will not convince those who value only large-scale ‘scientific’ analyses, while Baume and Beaty (2006) and Cousin (2009) are among those who encourage greater theorization of pedagogical research.

The HE sector’s global economic role is a key reason for Tight’s (2012) claim that the educational research field is growing in importance. The legitimacy of the field is also promoted, for example, by international educational research societies through their conferences, special interest groups and journals. Nonetheless, a mismatch in understanding of what constitutes valid and relevant research may constrain individual contribution and the effectiveness of collaborative educational research. For this reason, I developed the Product-Based Analysis (PBA) technique (KING 2006b, 2011, OUTPUT5) which helps to locate collaborative research within a strategic context.

1.2.2 The ‘contribution’ of individual and collaborative educational research to an HEI

I have come to prefer the broad term ‘contribution’ to the more contentious term ‘impact’ which carries a range of connotations within HE. In OUTPUT4, I deconstructed the notion of impact, differentiating it from dissemination in that the former refers to effected changes and the latter is restricted to awareness-raising. I argued that influence builds on dissemination and is a facet of impact. The REF exemplifies the necessity for clarity in exactly what is to be valued, using the term ‘impact’ in ways which exclude much educational research. For example, “[i]mpacts on students, teaching or other
activities within the submitting HEI are excluded” (REF 2011: 48 original emphasis)⁹. Although it is understandable that research activity which has purely internal impact should be excluded in this way, it is notable that much educational research, previously seen as valuable, is devalued by this ruling. Such considerations affect the research priorities of individuals and their collaborative contribution to their HEI, as explored in OUTPUT3.

Seen through the lens of academic ‘capital’ (Bourdieu 1977), research is valuable as a result of the accumulation of effort involved in its creation, the use that is made of it, and the income it may attract. Its value will vary over time as the market evolves; for example, the potential value of some published journal articles diminishes as publication becomes more common-place, hence the demand for differentiation according to the ‘impact factor’ of the journal. Impact factors provide a proxy for impact both in terms of author recognition and the regard in which peers hold a particular publication. Whilst both are important, the scope of the ‘impact’ is a narrow academic one. Like research in any discipline, educational research may contribute to an institution economically through funding awards and consultancy fees; culturally through knowledge creation and exchange; or symbolically through the accumulation of prestige in its staff and its research groups. These contributions can, in turn, assist the institution in maintaining or improving its competitive standing (Lucas 2006). However, educational research has the additional potential to contribute to the workings of the institution itself through its main thematic concerns, discussed earlier. For example, Tight (2012: 7) suggests that research into course design may include “the higher education curriculum, technologies for learning, student writing, assessment and postgraduate course design”. Such research straddles the boundaries of administration, management, leadership, teaching, learning and academic working lives. Nevertheless, unless an institution has specifically commissioned an investigation and invested in related staff development, it may be difficult for research findings to become adopted in practice. This thinking underlies all of

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⁹ The same wording is retained in the revised document (REF 2012a: 48).
the outputs in this portfolio as they each explore the facilitators, drivers and barriers of effective individual contribution within collaborative educational research (Objective 3).

1.2.3 Understanding how contribution is assessed

From an organizational management perspective, contribution is multi-dimensional and must be understood in terms of institutional culture (Kotter, and Heskett 1992). Both individual and collaborative contribution may be assessed through dialogue, the qualitative evaluation and coding of a range of outcomes, or through statistical analysis of comparators (Franco-Santos, Lucianetti, and Bourne 2012). For instance, Kaplan and Norton’s (1992) Balanced Score Card (BSC) is widely used to measure individual contribution to organizational strategy in the commercial sector (Ahn 2001, Wiersma 2009). At Coventry, the measurement of academic staff’s contribution to the institution is aligned with its applied research strategy (Coventry University 2011). Individual contribution is measured through annual staff appraisal which assesses the achievement of agreed objectives and the demonstration of core capabilities – rather in the manner of BSC (KING 2006a). Revenue centres report annually against agreed financial and output targets. In the case of research-active staff and formally constituted research groups, these targets reflect the requirements of the REF. However, it remains difficult for an individual or group to identify priorities amongst the raft of potential research objectives available. I developed the Product-Based Analysis approach discussed in OUTPUT 5 to assist research groups and their members in aligning their strategy with that of the institution.

The contribution of formal and informal research communities can also be evaluated in more subtle ways. Saunders et al. (2008) employed a three-phase model to evaluate the impact of the Centres for Excellence in Teaching and Learning10 (CETLs). In OUTPUT4, I introduced the Influence Wheel and demonstrated how data collected by one CETL to express its own conceptualization of impact could equally well express the evaluators’ conceptualization, that is, in terms of ‘awareness’, ‘exploring wider effects’

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10 “The Centres for Excellence in Teaching and Learning (CETL) initiative […] had two main aims: to reward excellent teaching practice, and to further invest in that practice so that CETLs funding delivered substantial benefits to students, teachers and institutions. Funding for 74 CETLs totalled £315 million over five years from 2005-06 to 2009-10” (Higher Education Funding Council for England 2011)
and ‘adaptation and extension’. The ability of the Influence Wheel to communicate contribution visually led to its adoption by the UK Change Academy as one of their recommended change management tools. In OUTPUT6, I further critiqued the Saunders et al. model, and enhanced it by adding three new transitionary phases. The enhanced model thereby alerts collaborators to potential social and cultural barriers which may hamper the embedding of educational research.

1.2.4 Issues of academic identity within a collaborative research community

Academic identity concerns how we see ourselves, and how others see us, within the HE landscape. While our academic identity may be experienced as unified and fixed, it is theorized as fragmented and fluid (Henkel 2000), and evolving as aspects of past and current self are affected by the changing academic context (Billot 2010, Clegg 2008). For example, OUTPUT3 found individual academic identities fragmented in response to an increasingly performative culture, while Åkerlind (2011) notes the fluidity of academic identity when becoming established in one’s field. OUTPUT6 notes the evolution of a group identity which helped to bond iPED members from a wide range of institutions despite our being competitors for economic and symbolic capital.

I see academic identity theory as ‘bound up’ with a range of other educational research concepts. Firstly, ‘threshold concepts’ (Land, Meyer, and Smith 2008, Meyer, and Land 2005) encompass the notions of troublesomeness and liminality which help to explain how an individual’s understanding of what it means to be an academic ebbs and flows as they learn more about their context. Smith’s (2010) insight, that probationary academics found their initial academic socialization to be a troublesome journey through a liminal space, is echoed in my recent study of one individual’s socialization into collaborative educational research (KING 2013). Secondly, academic strategic change (Kubler, and Sayers 2010) explains how an institution’s adaptations to such pressures as global competition and the marketization of HE alter the culture which contextualizes our identity. I explored this in OUTPUT5. Thirdly, Community of Practice (CoP) theory provides the notions of joint enterprise, shared repertoire and mutual engagement,
which together explain how our work-related groupings support or undermine the socialization and activities that define our academic identity.

The CoP concept was widely adopted and internationally researched after the publication of Lave and Wenger’s (1991) seminal text and the noted paper by Brown and Duguid (1991). Wenger (1998) developed Lave and Wenger’s deliberately vague notion of CoP by suggesting that a CoP is recognizable through its members’ self-identification with the CoP. Wenger (2000) and Wenger, McDermott and Snyder (2002) further evolved the concept; the former by suggesting that the key aspects of a CoP are domain, community and practice; the latter that CoPs could be utilized by an organization to promote creativity and employee engagement. A result of these changes in characterization was the increasing number of CoP critiques. For example, Fox (2000) notes the lack of discussion of power dynamics within a CoP where staff from across the hierarchy mix; Roberts (2006) raises concerns about the assumption of trust within a CoP, the constraints on development created by a CoP’s self-defined boundaries, and the unwieldiness of widespread and virtual CoPs. Meanwhile, the idea of the CoP as a means of promoting workplace collaboration has become embedded in both management training and academic discourse (Li et al. 2009, Murillo 2011). I explored and elaborated CoP theory in relation to individual contribution to collaborative research in OUTPUTs 2, 3 and 6. Having found CoP theory wanting, in OUTPUT6 I introduced my own framework through which to make sense of the social complexities revealed by my research.

1.3 Conclusion

In this section, I have outlined the scope of the higher educational research field, and explored why issues of contribution within collaborative educational research are worthy of study. This has enabled me to contextualize the contribution of the portfolio outputs in broad terms and as a coherent collection. In the next section, I will review the specific contributions of these outputs.
PART 2: SYNTHESIS AND EVALUATION OF THE PORTFOLIO OUTPUTS
2.1 Synthesis of links between the outputs

Two main themes link this series of studies; one is methodological, the other conceptual. Methodologically, all the outputs in the portfolio present insider inquiry into educational research undertakings. This standpoint is discussed in Part 3. Conceptually, each study frames a view of collaborative educational research: as cohort, organizational unit, community of practice or simply as a community – a sub-set of society. These evolving conceptualizations evidence an increasingly subtle understanding of collaborative educational research.

I initially conceived iPED2006 as a ‘cohort’ of educational researchers who undertook the roles of conference committee member, keynote speaker, author, peer reviewer or delegate. At the time of writing about iPED2006 in OUTPUT1, I was already working on iPED2007, which reinforced this cohort-based conceptualization. However, I soon became aware of recurring names, common experiences and peculiar idioms amongst the people I was involved with. The term CoP refers to “a normally professional, social grouping whose members work actively on a shared interest, solving shared problems, sharing and constructing knowledge over time” (OUTPUT2: 12), a definition which encapsulates iPED’s undertakings. OUTPUT1 exposed the “interplay between the local [a single conference] and the global [educational research at large]” (Wenger 1998: 162) which was helping to develop the identities of some iPED members. Furthermore, iPED’s determination to “overcome the barriers of [...] hierarchic status” (iPED Research Network 2009: ix) mirrored experts’ support of novice members which is also a feature of CoPs (Wenger 1998). For these reasons, ‘CoP’ replaced ‘cohort’ in my thinking whilst writing OUTPUT1.

Although the CoP concept initially appeared to explain how working, learning and knowledge creation go hand-in-hand and how individuals coalesce into teams, I discovered that CoP theory did not make sense fully of my educational research group experiences. When studying teams who collaborated both face-to-face and electronically, I found that individuals’ differing priorities, reluctance to adopt one another’s software and lack of common mission led to conflict. Despite the desire to co-
create new knowledge, educational researchers differed greatly in the extent to which they self-identified with the project, creating tensions. I explored and expanded these findings in OUTPUT 2. Sharpe and Mackness (2010), and Gourlay (2011) are among those who subsequently identified similar tensions.

Although I saw the importance of nurturing newcomers within a CoP, I found only patchy collegiate support amongst educational researchers. The competitive nature of the field (Becher, and Trowler 2001, Lucas 2006), and the complexity of the academic workplace with its multiple inter-relationships (Barnett 2011), may partly explain this. The small study which provided the starting point for OUTPUT3 revealed workplace tensions, particularly for new academic staff, which caused them to vary in the extent to which they committed to the CoP. Similar results, for example those of Billot (2010) and Clegg (2008), confirm the validity of this finding.

OUTPUT4 viewed the educational research team as an organizational unit focused on the need to demonstrate achievement of current and future funders’ targets. Like Sharpe and Mackness (2010), my conceptualization acknowledged the short-term and *ad hoc* structures under which much educational research is undertaken which are subject to the vagaries of funding body priorities. OUTPUTS developed this conceptualization by presenting educational research and development units as the university in miniature, responding to the pressures for strategic change which writers such as Kubler and Sayers (2010) identify.

OUTPUT6 exposed a difficulty in relation to the CoP life-cycle proposed by Wenger, McDermott and Snyder (2002). In the literature, CoP evolution is viewed as a series of life-cycle phases which reflect an externalized view of the group’s activity (Arrow *et al*. 2004); however, my research revealed internal barriers which related to a CoP’s social development. I therefore looked beyond CoP theory to explain educational research groups’ role as instruments of change (Canonico *et al*. 2011) and enhanced the Saunders *et al*. (2008) three-phase model of embedding research innovation to reflect my insights. My new model presented a dynamic view of social and cultural collaboration with iPED characterized as a ‘community’. I used three novels, *Pride and Prejudice*, *Sense and Sensibility* and *Persuasion* by Jane Austen (1775-1817), to represent the transitions
between the phases in the Saunders et al. model. I framed my analysis with metaphors taken from these same novels; and exposed some of the links between “thinking and language” (Meyer, and Land 2005: 375) (i.e. the adoption of specialised vocabulary) and the development of community identity.

Understanding a collaborative educational research group as a community – a sub-set of society – highlights issues of power, status and trust which, as noted above, some critics argue (Fox 2000, Roberts 2006) CoP theory fails to address. In such a community, individuals gain prominence and power through academic capital. Title (professor, doctor), role (research director, research fellow), or function (project director, PhD supervisor) are obviously prestigious, but so too is the social capital afforded by a track record of collaboration with, or patronage by, powerful players.

My framework of novels and their metaphorical themes provided interesting insights. The prejudice which caused community members to prejudge newcomers and continually to rejudge one another, was a social phenomenon; the pride which hampered collaboration was another; the sensibility which distracted community members from a ‘sensible’ focus on strategic objectives, yet another. To embed our work, we needed all our powers of persuasion. OUTPUT6 explored these and other social and cultural aspects of collaborative research.
2.2 Evaluative description of the portfolio of evidence

This section reviews each of the portfolio publications in chronological order, evaluating their contribution to knowledge and their originality. It also sets out the key research questions and the impact of each, and indicates the extent of co-author contribution.

OUTPUT1

Author’s contribution: 30%

I collaboratively authored this article with the conference theme leaders: Emergent Pedagogies (Clouder), Pedagogical Experiences and Evaluation (Deepwell), and Academic Writing (Ganobcsik-Williams and Deane). I selected and developed the article’s analytical approach, and wrote all but the three ‘theme’ sections. I am named as first author in recognition of my overall contribution to the research.

Research questions:

- What makes a successful conference for international educational researchers?

- To what extent did the first iPED Research Network conference achieve its objectives of facilitating dialogue between researchers in order to explore the conference themes collaboratively, and of providing networking opportunities which would enable participants to build alliances?

Description and substantive contribution:

This publication marked the establishment of the iPED conference series. In this article, I reflected on the role of research conferences and presented iPED2006 as one exemplar. My analysis of participant questionnaires prompted my conclusion that the event achieved its objectives. I also used participation statistics (enquiries, initial submissions, final submissions, registrations and attendance) as well as conference website ‘hits’ to explore possible patterns of exclusion from the conference relating to language,
geography or economics\textsuperscript{11}.

In this article, I presented iPED2006 as the first iteration in an action research project involving conference participants in refining iPED’s decisions concerning subsequent conferences. I compared the benefits of face-to-face and virtual conferences, suggesting that “[p]hysical proximity promotes collegiality through contextualization, visual cues, chance encounters, and observation of others’ spoken and unspoken responses” \textbf{(OUTPUT1: 426)}. I asserted that “a conference series establishes its own community of practice” \textbf{(OUTPUT1: 427)}, noting issues of power and politics which a conference may reveal. I concluded that a successful conference results from the interaction of its composite parts.

In retrospect, my reflections on the nature of conferences and iPED’s objectives would have benefitted from greater theorization. Critique of action research and CoPs is also lacking. However, the article is essentially a review of the event and in order to fit into this particular issue, the editors and I had already cut participant feedback quotations as well as further discussion on the benefits of conferences. \textbf{OUTPUT6} went some way to supplement this article’s shortcomings by providing a critical synthesis of iPED’s initiatives and \textit{modus operandi}.

\textit{Impact:}

\textit{Teaching in Higher Education} is ranked in the upper quartile by SCImago\textsuperscript{12} (95th of 573 Education journals). The journal’s readership includes members of the International Society for Scholarship of Teaching and Learning (ISSoTL)\textsuperscript{13}.

This article evidenced the iPED Research Network’s “approach to enabling impact from its research” (REF 2011: 6) that is, to provide international dissemination, collaboration and network opportunities for Coventry University educational researchers. Our adoption of a facilitative, scholarly and inclusive approach to iPED2006,
and our celebration of individual presenters through this article supported the subsequent claim that “iPED strives for mutual benefit” (Broughan et al. 2010: 145). The contacts and potential collaborators which iPED2006 provided included future seminar presenters, co-authors for funding bids and edited books, peer reviewers and conference contributors.

Further development:

In addition to convening four further iPED conferences, I also led an inter-organizational Leverhulme bid\(^{14}\) which was judged fundable but was unselected. The project aimed to explore the personal, institutional and pedagogical impacts of academic writing-skills development in colleagues from Brazil, Pakistan and South Africa. The bid made reference to the limited number of submissions to iPED2006 from lower income economies, their disproportionate rejection rate and low attendance levels, as shown in Figure 1, noting that further investigation was needed to fully understand the data.

![Graph showing sources of submissions to iPED 2006 by economic category of author's country, showing acceptance, rejection and attendance proportions.](image)

**Figure 1:** Graph included in Leverhulme bid showing iPED2006 author outcomes

I developed my critique of contribution within and by educational research groups through OUTPUTs 2, 3, 4, 5 and 6, and their supporting research.

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OUTPUT2

Author’s contribution: 70%
Deepwell proposed the initial response to an invitation to contribute based on KING and Deepwell (2006); she wrote one case study, and contributed to the chapter’s recommendations and conclusions. Acting as lead author (though listed second alphabetically), I selected and developed the methodological framework; critiqued the literature on electronic research (e-research) and virtual CoPs (VCoPs); contributed one case study; wrote all other sections and the accompanying definitions of key terms.

Research questions:

- How might the classic features of a CoP translate to an e-research environment?
- With reference to analysis of the exemplar projects and relevant literature, what can be discerned with regard to:
  - barriers to successful electronic collaboration and the development of a functional CoP?
  - approaches for resolving the conflicting expectations, skills, and cultural norms of electronic collaboration team members, and thereby achieving synergies through technology?
- What recommendations can be drawn from this study which may be pertinent to colleagues setting up other HE e-research projects?

Description and substantive contribution:
In this peer-reviewed book chapter, I defined e-research as collaborative research in any discipline which is effected through electronic means. Drawing on UK, USA, Australian and European sources, I argued that our two exemplars of international educational e-research were sufficiently typical to warrant analysis. My review of the literature on
VCoPs exposed issues which may arise when a purposively created research project team is physically, temporally and linguistically divided. Our autoethnographic framework employed personal inquiry (Mann 2003) to provide critical experiential reflection on emotional responses to e-research, and the ordered situational map (Clarke 2005) to facilitate analysis of e-research organizational and contextual factors. Our project reviews generated insights into issues of leadership, organization, and technology. Our overall recommendation was for compromise as the means of achieving e-research synergy.

**Impact:**

The chapter was made the first of fifty in this American-edited collection by authors from sixteen countries. It was also the book’s sample download chapter until 2013.

We were invited by the editors to participate in the pre-launch webinar alongside one author from the USA and another from Australia (Deepwell, and KING 2008). International citations are accumulating.15

The chapter was also selected for inclusion, without change, in Kock’s (2009) edited collection on electronic collaboration.

**Further development:**

My interest in VCoPs and e-research led to the inclusion of VCoP themes in iPED2008, which I convened. This in turn led to invitations to speak at the International Conference

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15 References to OUTPUT 2 include:
on Web Based Communities (KING 2008a) and for iPED to edit a special issue of *International Journal of Web Based Communities* (IJWBC) entitled ‘Web Based Research Networks and Learning Communities’. I led the project to produce this issue, recruiting co-editors, authors and peer reviewers from within and beyond the iPED virtual community. We received twenty expressions of interest of which eleven were from iPED members. Seven articles were finally selected, five appeared in the iPED-edited issue and two were held over to the following issue\(^\text{16}\) with my role in their selection acknowledged in the editorial (Kommers 2010).

My theme ‘Researching Beyond Boundaries, Academic Communities without Borders’ for iPED2009 provided an opportunity to invite Dr Etienne Wenger to give both the opening keynote speech and a half-day workshop on CoPs. This attracted local, national and international delegates to the conference. iPED2009 also hosted the launch of our edited book (iPED Research Network 2009) which showcased iPED’s e-research.

My critique of educational research CoPs was further developed through **OUTPUTs 3** and **6**.

**OUTPUT3**


*Author’s contribution: 30%*

The authors contributed equally to the discussion, conclusion and underpinning scoping survey on academic identity. I supplied the theoretical framework, drawing on research into academic identity (KING 2006c) and academic strategy (KING 2006a), and findings from **OUTPUT 2**. Clouder acted as lead author and provided one vignette, Deepwell provided the other vignette.

\(^{16}\) Unknown to the editorial team, the overall issue word-count was reduced when an automated journal production process was introduced for that issue.
Research questions:

- How do issues associated with identity, identification and CoPs found in the wider HE landscape relate to the iPED initiative?

- To what extent does detailed study of two of iPED’s sub-communities support previous findings concerning individual responses to strategic change?

- What light can these studies throw on our understanding of individual assimilation and agency within a research community?

Description and substantive contribution:

In this peer-reviewed book chapter, the iPED initiative provided a focus for our exploration of the cultural changes brought about by the 2008 Research Assessment Exercise (RAE). Drawing on Tight (2003), we acknowledged the widespread shift in academics’ roles and identities. Our representation of Coventry University’s evolution from ‘bureaucratic’ polytechnic to mission- and target-driven ‘corporation’, complicated by patches of customer-focused ‘enterprise’ in its ARCs and ARGs\(^\text{17}\), drew on McNay (1995).

Our scoping survey of academic identity had revealed individuals’ frustration with the competing pulls they experienced in educational research. Vignettes of two of iPED’s sub-CoPs reinforced these findings by revealing tensions between traditional collegiate behaviours and newly imposed competitive norms which undermined the role of iPED as a CoP. The chapter contributed the finding that the individuals we studied tended to make active career choices rather than accept imposed change passively. It also highlighted the importance of mentors and trusted colleagues in assimilating new collaborative educational researchers.

Impact:

Professor George Gordon of the University of Strathclyde, in his accompanying commentary on this chapter (Gordon 2009), found that while we raised many questions,

\(^{17}\) Applied Research Centres (ARCs) such as iPED, and Applied Research Groups (ARGs) were established at Coventry University in 2005 to foster entrepreneurial research activity.
we also illuminated and contextualized issues around individual identity. Professor Paul Blackmore, in his introduction to the edited book as a whole, wrote that this chapter offered “a fascinating insight into the issues of identity that arise when major strategic change is attempted in an institution” (Blackmore 2009: 9).

Further development:

The chapter encouraged me in the development of a reflexive approach in order to gain the deeper insights sought by Professor Gordon. In OUTPUT 6, I reflexively explored academic identity, CoPs and their social context. I also pursued the notion of iPED as a community of communities in preparing the editorial for the iPED Special Issue of IJWBC with the description of iPED as “a ‘meta-community’ ” (Broughan et al. 2010: 145).

OUTPUT 4

Research questions:

- What will ‘count’ as impact for the UK Centres for Excellence in Teaching and Learning (CETLs)?
- How might a CETL demonstrate that it has had an impact on teaching and learning practice on, and beyond, its original target group?
- How might CETLs adapt their impact evidence for new audiences?

Description and substantive contribution:

I undertook the funded project for the CIPeL CETL in 2007-8 which set out to develop a new way of visualizing research group impact. I created the Influence Wheel proof of concept and prototype (Figure 2); carried out evaluative interviews with CIPeL staff at Coventry and Sheffield Hallam; disseminated my initial findings (KING 2008b); and researched impact evaluation and the CETL context.
In this peer-reviewed journal article, I considered the funding and sustainability of educational research groups in an impact-oriented context. Having argued that the audience will dictate the meaning of the term ‘impact’, I proposed a need for tools which could adapt impact evidence to suit the audience. I presented a mismatch in interpretation of impact by the CETL evaluators and the CETL teams as a further reason for developing tools which could represent impact in a flexible way.

**Figure 2: Example Influence Wheel showing hover text on a cell (version used to create OUTPUT4: 39, Figure 1)**

The Influence Wheel provides a visualization of research contribution on, and beyond, its original target group, as a set of concentric circles. As discussed in the article, this is achieved by adapting the function of the ‘doughnut graph’ in MS Excel™. An interactive image is created from the underlying spreadsheet where each row contains appropriate details (for example, of a research output, activity, networking link or collaborator). The circles are generated by categorizing these underlying rows in an appropriate way (for example, to show which ones relate to international influence). The circles ‘ripple out’ from the centre of the diagram in the sequence chosen (for example, local, then national, then international). Within the generated image, each cell represents an
underlying row in the spreadsheet, hence the more cells depicted in a circle, the more of that category of influence could be claimed. The colour of the cells is not meaningful in itself since Excel simply allocates a different colour to each. This is one of the aspects which CIPeL users suggested required refinement if the tool were further developed. Hovering the mouse over a cell reveals a text summary of the related row.

Methodologically, my development and trialling of the Influence Wheel combined an evolutionary design approach (Gilb, and Finzi 1988) with action research iterations. I addressed the need to adapt evidence for new audiences by demonstrating how CIPeL’s existing spreadsheet comprising rows of impact evidence could be re-categorized according to the Saunders et al (2008) three-phase model of change used to evaluate the CETLs. This generated an Influence Wheel diagram which expressed impact in quite different terms from CIPeL’s conceptualization. This practical guidance is a further contribution.

Impact:

The Influence Wheel has been adopted by the HEA Change Academy as a recommended tool for exploring the contribution of educational initiatives18. Its citations are accumulating19. Requests to support its use have been received from researchers at Wolverhampton University, University of Ulster, University of Southern Queensland and University of Queensland (UQ). At UQ, researchers have developed their own variant20.

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19 Citations include:


20 JE of UQ wrote “We find that the influence wheel is an excellent way of thinking about and presenting data with regard to the tracking of influence/dissemination of an activity or project that we are engaged in evaluating.” [email 24/08/2010]. DG of UQ wrote that she was “using it as a tool to track adopters or just those with whom you have engaged” [email 29/04/2011].
Further development:

In an SRHE poster which developed alongside OUTPUT 4 and drew upon its findings, we concluded that “it is easier to make an impact and to have work valued in one’s own institution when it has already gained external recognition and approval” (Clouder, and KING 2008: para 4). This insight led to my writing the article which evolved into OUTPUT6 in which I also developed my thinking on the Saunders et al. (2008) change model.

OUTPUT5


Research questions:

- Why is the location of educational development and research strategically difficult?

- How might a technique derived from project planning support the visualization of academic strategy in terms of key drivers, direction and measurable impact?

- How useful is such a technique?

Description and substantive contribution:

I derived and developed the product-based analysis (PBA) technique; presented it for critique in Australia (KING 2006b) and the UK (KING 2011); developed the exemplar case studies and undertook the underpinning research into educational development centre diversity.

In this peer-reviewed journal article, I used the term ‘educational development centre’ (EDC) to signify the strategic home of educational research within academic institutions. I reviewed the challenging EDC context, considered different embodiments of the EDC function internationally, and explained the need for tools to analyze an EDC’s strategic contribution. I introduced PBA as a novel technique which an EDC could use alongside other strategic analysis tools. An example of a PBA diagram is given in Figure 3.
Figure 3: Product-based analysis depicting an EDC’s 2010–2015 strategy (OUTPUTS: 4, Figure 2)

PBA depicts strategic drivers, goals and interim outcomes as ‘products’ (things) and thereby removes personal or emotional connotations from a strategy. I made the case for PBA through two exemplars from Coventry University which captured different EDC
functional contributions to a host institution. Both exemplars drew on autoethnographic analysis with the former supported by document analysis of four publications by EDC members and the latter by interview and focus-group feedback. The article’s practical guidance in undertaking PBA is a further contribution.

I evaluated the efficacy of PBA against other strategic analysis approaches used by HEIs. I argued that PBA was unusual in capturing changes in attitude, ethos or organization alongside functional strategic change and that PBA also differed from established strategic analysis techniques in that it provided a holistic, rather than partial, view of the way forward. The article contributed PBA as an original technique which required wider critique.

**Impact:**

*International Journal for Academic Development* (IJAD) is the official journal of the International Consortium for Educational Development (ICED)\(^{21}\) which comprises 23 member organizations from across the world\(^{22}\).

It is too early to assess the impact of this article. The editors of *International Journal for Academic Development* welcomed my original outline and encouraged submission of a full paper\(^{23}\). Peer reviewers were also supportive, for example, **Reviewer1** said “[t]his is a worthwhile topic and one which many readers of the journal may find of interest”. **Reviewer2** said “… the paper inspired [me] to try to use PBA in our EDC as well. And assuming that ‘inspiring other organizations’ is one of the major goals of this paper: the goal has been achieved”.

**Further development:**

The suggestion of one peer reviewer of elaborating PBA as a book, is being considered.

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\(^{21}\)[http://www.tandfonline.com/action/aboutThisJournal?show=societyInformation&journalCode=rija20][15 February 2013]

\(^{22}\)[http://icedonline.net/member-organisations/][15 February 2013]

\(^{23}\)IJAD Editor (2011) Email to the author [14 Mar 2011]
OUTPUT6


Research questions:

- How do the personal experiences and public writings of a research community reveal its social and cultural development?
- How might CoP or other theory characterize this development?
- How would this illuminate collaborative contribution?
- What can be learned from this study that would be of value to other research groups?

Description and substantive contribution:

I devised the underlying conceptualization of research group development (KING 2009) and developed it into the Enhanced Three-Phase Model of research group contribution. I further developed this model into a research strategy which provided an analytical framework of metaphorical themes helpful in drawing out social and cultural issues in ‘close-up’ research (Trowler 2012b).

![Figure 4: Enhanced Three-Phase Model of impact depicting the phases and transitions in the community’s evolution (OUTPUT6: 7, Figure 2)](image)

This peer-reviewed journal article provided a critical synthesis of the initiatives, outputs and *modus operandi* of iPED (anonymized as ‘Meriton’, and framed as a writing
community). It built on OUTPUT4 by enhancing the CETL three-phase model of research group impact by articulating the social and cultural transitions between the phases as ‘Pride and Prejudice’, ‘Sense and Sensibility’ and ‘Persuasion’. I used this composite model (Figure 4) to explore iPED’s developing impact institutionally, nationally and internationally.

I countered the potential weaknesses of an autoethnographic approach, acknowledged in the article’s title, by adopting Hammersley and Atkinson’s (2007) recommendation of using themes from fiction to scaffold my analysis. For example, I explored the theme of ‘Accomplishments’ in terms of academic writing skills, while framing them as social and cultural endowments judged by the community’s pride and prejudices. This strategy helped to maintain internal distance, making my personal experiences more widely relevant. The article extended the autoethnography used in previous outputs, and contributed reconceptualizations of Wenger, McDermott and Snyder’s (2002) group maturation process and Saunders et al. (2008) impact model. It concluded by making a series of recommendations for those seeking to establish or develop their own research communities.

Impact:

Arts and Humanities in Higher Education is ranked in the upper quartile by SCImago (5th of 183 Visual Arts and Performing Arts journals) and in the second quartile of Education journals (226th of 573)24. The journal is associated with the International Society for Scholarship of Teaching and Learning (ISSoTL).

It is too early to assess the impact of this article. The editor of Arts and Humanities in Higher Education welcomed my initial proposal25. Reviewer1 said “I think it offers a thoughtful and revealing, but also delightfully whimsical, addition to theorizing research community formation and survival ...” Reviewer2 said “The central conceit – tracing the experiences of Meriton through Austen’s novels – is compelling and has the potential to prove highly illuminating...”.

25 AHHE Editor (2011) Email to the author [13 Jul 2011].
Further development:
To date, tentative enquiries into alternative contexts in which to apply my Enhanced Three-Phase Model have met with resistance. However, acceptance of OUTPUT6 led to an invitation to contribute my metaphorical inquiry strategy to HERD’s special issue ‘The Role of the Disciplines: Alternative Methodologies in Higher Education’. This new article has now been peer-reviewed and published (KING 2013). Ethical approval was awarded for a related research project26. This has taken a visual metaphorical inquiry approach to understanding individuals’ academic identity.

2.3 Contribution of the tools

Figure 5: Framework to express alternative understandings of educational research contribution

*Figure 5* offers a framework which combines the three models presented in this portfolio. These new models help to illuminate the contribution of collaborative educational research (Objective 2).

The Influence Wheel may be used to visualize different conceptualizations of contribution from a single underlying spreadsheet containing details such as research

outputs, activities and those affected by, or involved in, an educational research initiative. It can also be used, as discussed in OUTPUT4, to reveal gaps in contribution as was the case for the CIPeL CETL; to compare contribution at different points in time; or to compare the contribution of individuals. Despite its technical limitations as a prototype, the Influence Wheel has attracted wide interest. For example, at the University of Queensland, the Influence Wheel has been used to compare planned, potential and actual influence.

Product-Based Analysis provides a holistic view of the strategic drivers, goals and interim outcomes of research. This allows individuals and collaborators to prioritize activity which has most strategic benefit (KING 2006b). The model has also been used to analyze a written strategy, to develop or communicate a new strategy, or to track progress against an existing strategy, as shown in OUTPUTS. PBA contributes to the options available to educational researchers seeking to communicate the positioning of their work within an organization. Through workshops and one-to-one discussions, it is apparent that PBA has greater appeal to those who value visual communication. Other limitations may emerge as the model gains wider use.

The Enhanced Three-Phase Model articulates the social and cultural transitions which may attend when striving for external recognition of the outputs of collaborative educational research. When used alongside an analysis framework comprising themes and titles from three Austen novels, this model exposed the problems and opportunities iPED encountered (OUTPUT6). While its wider application has yet to be tested, the model was warmly embraced by HEIR27 delegates (KING 2009). The accompanying metaphorical strategy also resonated with the editor and peer reviewers of AHHE. The model represents my synthesis of evidence of facilitators, barriers and drivers to contribution within collaborative educational research (Objective 3).

PART 3: REFLECTIONS ON PAST AND FUTURE RESEARCH
3.1 Critical reflection on my development as a research practitioner

Methodologically, all my portfolio outputs employ insider research; that is, the research was undertaken in contexts where I was a member of the collaborative educational research groups I studied. As a result of my insider status (Merton 1972), I had access to a wide range of visual, aural, oral and written data-sources including close observation of unfolding events and the development of relationships amongst group members. The data-capture was not always conscious; some unconscious observations became apparent as a result of later reflection. In OUTPUT6, I was able to make sense of experiences, observations and readings in ways that were self-revelatory. One such revelation, omitted from the article, was that different interpretations of the nature and purpose of educational research add to the potential tensions between collaborators.

My current research is governed by local ethical guidance (Marshall 2012). In creating the portfolio outputs, I and my co-authors employed a cautious ethical approach in order that personally acquired insights would be used with appropriate care (Hammersley, and Traianou 2012). For example, individuals were named in OUTPUT1 where their conference presentations were commended. In OUTPUT5, I named four departmental members whose publications formed part of my document analysis since they had each already chosen to make their views public. However, I did not name other individuals in that or my other publications since no benefit would accrue. Although roles and affiliations make individuals potentially identifiable, internal review before submission confirmed the ethical acceptability of each output. However, I feel now that I was too easily reassured, and that I should have sought specific agreement from those implicated in the research post hoc as Ellis (2007), BERA (2011) and others suggest.

My initial perspective as an action researcher originated from my secondment to Liz Beaty’s influential taskforce (1997-2000) where my role was to trial and evaluate novel approaches to teaching, learning and assessment (Beaty, and Cousin 2003, Deepwell, and Beaty 2005, OUTPUT5). Through a series of action research cycles (McNiff, and Whitehead 2002, Stringer 1999), I collaborated with students and colleagues to explore the effects of our new VLE. I found that action research led, as Lewin (1946)
suggests, to changes in my own practice as a lecturer. It also encouraged me to collect photographic and videoed evidence of my initiatives; a strategy I promoted to others locally and nationally (KING 2005a, 2005b).

I retained an action research approach in undertaking the work reported in OUTPUT1 and OUTPUT4. Each set out to evaluate and improve effectiveness; the former of the iPED conference series, the latter of the Influence Wheel tool. These articles tend more toward the explanatory than the theoretical and critical, perhaps revealing a concern for relevance over rigour for which action research has been criticized (Levin, and Greenwood 2012). While I would accept this as a limitation of OUTPUT1, I would contest it in the case of OUTPUT4. This looked beyond the original research context to explore ways that the Influence Wheel could be adapted to suit different needs and different circumstances.

The collaboratively designed research presented in OUTPUT3 built on two concurrent action research cycles. My co-authors each employed a variant of action research to collect group evaluations of the effectiveness of their sub-communities. They deepened these evaluations by reviewing their data in the light of their insider knowledge and insight. These reflections fed into our joint discussion of academic identity in a performative culture.

My development as a researcher is partly evidenced through increasing reflexivity in my writing. In OUTPUT1, our reflections were confined to aspects of the conference which could be made public “without exposing ourselves”28. In writing OUTPUT4, I felt similarly constrained. OUTPUTs 2, 3, 5 and 6 were less concerned with the possibly negative implications of ‘public exposure’ and more concerned with uncovering and interpreting different “phenomena, descriptions, explanations or meaning lying beneath that surface” (Brew 2001: 25). Together these articles exposed the challenges of undertaking educational research in organizationally unstable settings where issues of power, politics and identity were key. Trowler (2012b: 276) promotes the need for careful reflection “because explanation is sought more than correlation” in this kind of

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28 Email to the author-group from co-author DL Clouder, 20 October 2006 (used with permission).
research. Autoethnography, enabled me to write about “things that [I] would normally ignore” (Dauphinee 2010: 809) in order to illuminate collaborative research. Autoethnography also gave me insight into contexts in which I was deeply immersed by making the familiar ‘strange’ and therefore more visible (Hammersley, and Atkinson 2007). In each article, I attempted to make sense of this ‘strangeness’ through questions and reflections generated as much from the data as from the underpinning theory. I found autoethnography helpful but challenging, since it required me to expose my own weaknesses and to interrogate my motives candidly (Ellis, and Bochner 2000). Numerous rewrites were required to create an insider’s narrative which remained conscious of the wider organizational and theoretical context.

Since any research strategy will be selective in the phenomena it hides and those it reveals (Alvesson 2002), I employed a range of strategies in the portfolio outputs according to the context in order to gain a variety of insights – as well as to gain experience in their use. To increase the potential trustworthiness of the findings, more than one context was usually examined. We used two detailed studies in OUTPUT2, each explored through two complementary strategies (personal inquiry and the ordered situational map). In OUTPUT3, we compared the findings of two vignettes against those of a previous study. I used two contrasting exemplars in OUTPUT5, where I compared my own interpretations against others’ (using document analysis and interviews). In OUTPUT6 I employed metaphorical themes from works of fiction to illuminate the single case, drawing on collaborative writings as well as my own memories and materials. I have re-employed this last strategy as ‘the novel’ in KING (2013).

The portfolio outputs thus evidence my development as a research practitioner through an increasingly subtle grasp of methodological options as well as of theoretical perspectives. I will illustrate this development through the use of my models.

The PBA in Figure 6 portrays my development as a researcher since 2005. This diagram shows my key drivers as cross-disciplinary insights, my original research fellow role and aims, and the PEST drivers (political, economic, social and technological) that impinged on my individual targets and collaborative research aims. These drivers influenced my role in creating individual and collaborative research opportunities which
resulted in enhanced educational research skills and research ‘capital’ for myself and others. The RAE and (subsequently) REF frameworks informed the evaluation of this intended ‘critical mass’ of educational research at Coventry. My own reflexive critique of these experiences within and beyond this portfolio worked towards the ultimate goal of understanding of collaborative educational research contribution.

**Figure 6: Product-based analysis (PBA) of my development as a researcher since 2005**

PBA reveals the broader effects of my research activity but gives little indication of the number of my interventions. For this, the Influence Wheel is required.

The Influence Wheel shown in Figure 7 provides a snapshot of my cumulative contribution to educational research. The spreadsheet in APPENDIX II lists my publications, disseminations, collaborations, and the adoption of my work by others. The spreadsheet rows have been categorized according to whether they concern (1) raising local awareness, (2) exploring wider effects or (3) adaptation or extension by others. The electronic version of the visualization is interactive in that hovering over a cell will reveal...
a truncated version of the row contents. The static version given here, nonetheless, provides insight into the scale of my contributions at these three different levels.

![Influence Wheel](image)

*Figure 7: Influence Wheel depicting the extent of my research contribution since 2005*

I have written further of my development as an educational researcher in KING (2013) where I used a novel by Miles Franklin (1879-1954) to draw out cultural and social issues: *My Brilliant Career* (1901/1980) provided both the title and the themes that framed my analysis. The theme of *adolescence* exposed the liminal stage through which I had had to pass to gain mastery of troublesome educational research concepts (Land, Meyer, and Smith 2008, Meyer, and Land 2005). The theme of *marriage* gave me insight into the difficulties I had encountered in developing my research profile while my institution restructured and reorganized. This metaphorical analysis exposed undisclosed feelings.

A pattern of concealment and disclosure emerges from these reflections. My use of different research strategies and different exemplars is necessary because each “makes the world visible in a different way” (Denzin, and Lincoln 2012: 4); and, by implication, each makes it invisible in different ways. Similarly, the Influence Wheel and PBA will, like any graphical representation, foreground certain aspects (Friend 2005); other aspects will be backgrounded or omitted altogether. This is a necessary feature of
graphics. Finally, the metaphors employed in the Enhanced Three-Phase Model, its accompanying analysis, and those selected from *My Brilliant Career*, each highlight certain aspects of the researched context while hiding others. This is an inherent quality of metaphor (Lakoff, and Johnson 1980) which has the power to constrain thought as well as freeing it. Together these strategies helped to crystallize my understanding of educational research contribution; which, nevertheless, inevitably remains incomplete.

While my insider research continues, my wider role is increasingly that of mentor rather than mentee. I also greatly enjoy supporting and interacting with new educational researchers through my lectures, workshops and action learning sets.

### 3.2 Future work

It is evident that my research has the potential to develop in a range of directions. A book on PBA as suggested by one peer reviewer; collaboration with the many users of the Influence Wheel; application of the Enhanced Three-Phase Model to other research groups; are all possibilities. Since early 2012, I have also worked on a new research strategy I call ‘Mapping Academic Identity’ (MAI). This is a visual metaphorical strategy I devised to introduce student-colleagues to the concept of academic identity, something which had previously proved difficult. The PgC Higher Education Professional Practice course leader has now used MAI successfully with two further cohorts. I employed the MAI strategy in an article for HERD (KING 2013) alongside ‘the novel’ and a third strategy I called ‘the grid’ which I had originally conceived in 2005 (KING 2005b). I gained ethical approval for a research project to explore MAI further with the PgC course leader and four PgC students once they had completed their course. Preliminary work was presented at the SRHE annual conference (KING et al. 2012, Wilson, and KING 2012), and a collaboratively written journal article is planned. Interest generated at SRHE led to an invitation to collaborate with a colleague in New Zealand. The MAI initiative has given me the satisfaction of supporting the educational research development of my five Coventry collaborators while observing the effectiveness of my strategy when applied by others. I expect this serendipitous creation of research opportunities, and my creation of new visual research strategies, to continue.
3.3 Conclusion

Through this portfolio, I set out to show how my work has added to our understanding of individual and group contribution to collaborative educational research. The ‘I and we’ in my title is intended to suggest the difficult balance between individual and group interests that collaborative educational research entails. On one hand are the potential synergies offered by collaboration; on the other, the possibility of internal conflict and mutual distraction. An individual’s contribution to a collaborative output may be hidden or over-valued, intentionally or unintentionally. It is these kinds of social and cultural issues which make the contribution of collaborative research to an individual career, an HEI or the wider field, problematic. My response has been to seek ways of making such contribution more transparent. In an increasingly competitive HE context, where researchers vie for funding, prestige and recognition; greater understanding and improved transparency would seem to be worthwhile research goals. My objectives in this portfolio have been concerned with understanding collaboration and contribution better. I feel I have achieved this.

3.4 Claim for PhD Equivalence

My claim for PhD equivalence is fourfold. Firstly, originality, through the use of models and theory from outside the Education domain which have brought fresh insight to the HE context. Secondly, contribution to knowledge, by increasing understanding of the notion of contribution in relation to collaborative educational research. Thirdly, impact, through the adoption of my work by others. Finally, sustained effort, through the application of a research focus to a coherent theme.

I therefore claim that, through this portfolio, I have evidenced an original, independent and coherent contribution to knowledge equivalent to that achieved in the award of any other PhD.
REFERENCES


KING, V. (2008a) ‘IJWBC Special Issue: Web Based Research Networks and Learning Communities, Guest Editors: The iPED Research Network’. Invited talk at IADIS
International Conference on Web Based Communities. held 24-26 July 2008, Amsterdam, The Netherlands


REF (2012b) *Part 2C: Main Panel C criteria*. [online] available from <www.ref.ac.uk/media/ref/content/pub/panelcriteriaandworkingmethods/01_12_2C.pdf> [15 February 2013]


APPENDICES
APPENDIX I: Curriculum Vitae

Full Name
Virginia Clare KING

Employment History
1976-89 IT professional (computer programmer-analyst and consultant), West Midlands
1989 Part-time lecturer in project management, Coventry Polytechnic
1989-99 Senior Lecturer, Computer Science, Coventry Polytechnic/Coventry University
1997-2000 Secondment to Teaching and Learning Taskforce, Coventry University
1999-2005 Principal Lecturer & Information Systems Subject Leader, Coventry University
2005-2007 Pedagogical Research Fellow, Coventry University
2007-2012 Higher Education Consultant
2007 to date Part-time lecturer, Coventry University

Education
BA (Hons) English and Linguistics, University of Lancaster (1976)
City & Guilds 730 (Teacher Training for HE/FE) Stage 1 (1989), Stage 2 (1990)

Professional Memberships
Fellow of the Higher Education Academy, UK (2006)
Member of the Society for Research in Higher Education
Member of the Higher Education Research and Development Society of Australasia

Professional Roles
External Examiner:
- Coventry University Franchise and Partner Colleges in the West Midlands, Greece, Malaysia, Singapore and Hong Kong (1999-2005)
- MSc Information Systems, University of Brighton (2001-2004)
- Undergraduate degrees in Information Systems, University of Derby (2005-2008)
- MSc E-Learning and Information Systems, University of Central Lancashire (2008-2011)

PhD Supervisor: Parveen Kaur Samra PhD (awarded 2010), Coventry University: ‘Online Training Services in Work Based Learning for SMEs’
Peer Reviewer:

- 2006-2009 HEA ICS Annual Conference
- 2009-2010 HERDSA Conference
- Higher Education Research & Development (journal) (2012-date)


Tutor: PgC Higher Education Professional Practice, Coventry University (2005-date)

Research Projects:


KING, V. (2007-8) CIPeL Impact: Reach and Influence of the Centre, Pilot Study (CIPeL CETL Small Grant)

KING, V. (2011-2012) Coventry University Alignment with the UK Concordat to Support the Career Development of Researchers. (Organisational Development and Learning)

### Appendix II: Virginia King Contributions to HE Research 2005-2013

*(List of publications, outputs, research grants and adopters of her work, presented in the form of Influence Wheel spreadsheet contents)*

<table>
<thead>
<tr>
<th>Virginia King Outputs, Activities and Adopters</th>
<th>Shortname</th>
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<th>Adaptation &amp; Extension</th>
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</table>
## Virginia King

### Critical Overview, Appendices

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<td>KING, V. (2012-2013) 'Mapping Academic Identity (P3698)'. Research Project Leader, Coventry University</td>
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Appendix III Ethics Documentation

The Influence Wheel, as a CIPeL Small Research project, was covered by:

1. The approved overall CIPeL CETL research ethics document (extract: Table of contents)
   Specifically, this project formed part of its approved:
2. CIPeL Research and Evaluation Strategy
APPENDIX III, Document 1, CIPeL CETL Overall Ethical Framework

Coventry University

RESEARCH PROPOSAL FOR ETHICAL APPROVAL

Title: Evaluation of E-Resources Developed to Promote Interprofessional Learning

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5. Objective 2
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7. Objective 4
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9. Rigour
   Ethical Considerations
10. References
13. Appendix 1 CIPeL Research and Evaluation Strategy
14. Appendix 2 RLO Student Evaluation Form
15. Appendix 3 RLO Peer Review Form
16. Appendix 4 Focus Group Interview Question Guide
18. Appendix 5 CIPeL Secondee Interview Guide
21. Appendix 6 Staff Focus Group Interview Question Guide
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CIPeL Research and Evaluation Strategy

1. Introduction

The Centre for Interprofessional eLearning (CIPeL) is a collaborative Centre of Excellence in Teaching and Learning (CETL) between Coventry University and Sheffield Hallam University. The CIPeL is funded by the Higher Education Funding Council for England (HEFCE).

The strands of activity of the CIPeL are:

- To produce interprofessional learning objects, learning activities and assessment tools to address interprofessional capabilities
- Research and develop pedagogic strategies and models related to e-approaches to interprofessional learning
- Disseminate and engage internal and external stakeholders with e-approaches to achieving interprofessional capabilities.

2. Background

The strategy has evolved over the first months of the CIPeL and has been informed through reflection on the original bid to HEFCE; attendance at a Higher Education Academy (HEA) seminar on CETL research and evaluation processes; a workshop conducted by the appointed external evaluator and HEA representative to CIPeL. It is further informed by reference to a critical review of evaluations of Interprofessional Education (LTSN for Health Sciences and Practice, 2002), the findings of which indicated that:

- Evaluation designs seem to centre largely on before and after and longitudinal studies.
- There is an identified need to consider processes and outcomes of interprofessional learning.
- Few studies have considered longevity of change indicating need for prospective and longitudinal studies
- Quantitative studies dominate therefore need for interpretive and critical studies especially use of ethnography, phenomenology and action research studies that take in multiple perspectives
- Mixed methods are advocated to explore multifaceted nature of IPL
The CIPeL research and evaluation strategy brings together three aspects of inquiry: research, evaluation research and monitoring (Chelimski 1995). There is likely to be some overlap between these aspects: monitoring is primarily for accountability and relies on robust systems of governance; research is focused on knowledge creation and involves the use of theory to generate new insights, including evaluation research. These will be utilised to drive development and involves scrutinising the processes that make the CIPeL work.

3. Aim and Objectives of the CIPeL Research and Evaluation Strategy

The aim of the strategy is to ensure that the activities of the CIPeL are transparent and that new knowledge and insights are systematically observed, articulated and disseminated.

Objectives:

1. To work with others to identify research and evaluation topics that will support and drive the activity strands of the CIPeL

2. To ensure support for the production of e-learning objects and their evaluation

3. To support the development of research-development proposals that fall within the interests of the CIPeL and promote their implementation.

4. To commission studies of particular importance to the CIPeL through PhD studentships and small research grants

5. To ensure that all research, evaluation and monitoring processes are conducted within an ethical framework, including the allocation of resources for projects

6. To encourage increased collaborative working

7. To increase the research capacity in both institutions

8. To ensure that the processes and products of the CIPeL are made transparent and disseminated in order to inform and promote change

4. Overall Methodological Approach

The CIPeL's phenomena of interest with respect to research and evaluation are multiple and varied and do not fall within any one research paradigm. Drawing on the critical review of evaluations of Interprofessional Education (LTSN for Health Sciences and Practice, 2002) cited above, the overall strategic intent of the CIPeL activities, therefore, is to embrace a multi-method approach to the inquiry processes of the project. With respect
to survey methods employed, in order to ensure a robust approach to data collection and strengthen validity and reliability of findings, both institutions will employ the same data collection instruments.

5. Monitoring Processes

Monitoring is not a primary concern within the research and evaluation strategy. However, some evaluation activity will overlap conceptually with monitoring, such as those identified in the appended matrix concerning the development and evaluation of learning objects.

Project monitoring will be undertaken by the centre manager through the usual procedures of institutional audit and any formal reporting required by HEFCE and governance procedures of the collaborative partnership. The HEFCE requirements for monitoring, and the focus of institutional monitoring are:

a. HEFCE monitoring requirements

HEFCE requires the CIPeL to send an annual monitoring statement (AMS) every twelve months throughout the project. The purpose of this is to:

i. Summarise the CIPeL’s mission, key objectives and targets, and performance against objectives in strategic areas.

   Monitored through use of Gantt Charts outlining key activities each year against timelines/responsible parties. Tracks % complete on every task and updated every two months.

ii. State the CIPeL’s priorities for the next operating year.

   Monitored through the annual business plan developed from Stage 2 bid.

iii State the CIPeL’s key assumptions about future trends.

   Monitored through available statistics on: CIPeL web users, number of students/users accessing activities (part of which courses, how links back to IPL), financial spend, dissemination activity.

iv. Provide a financial statement to ensure we are on target in line with business objectives.

   Monitored via monthly financial reports collated by each institution.

v. State the current levels of activity which underpin the plans and financial forecasts.
Monitored through available statistics on: CIPeL web users, number of students/users accessing activities (part of which courses, how links back to IPL), financial spend, dissemination activity.

vi. Explain any cases where under-achievement of targets and activities will mean that overall objectives and outcomes are not achieved, or when there is an impact on the delivery of other targets and achievements which together mean that overall objectives and outcomes cannot be achieved.

Monitored by reports as necessary.

b) Institutional monitoring

The CIPeL will monitor for HEFCE requirement as outlined above, but looking at the importance of sustainability at project end and to ensure maximum potential is being achieved using available resources by the CIPeL, monitoring will take place at institutional level in the following areas: student experience, staff experience, team experience, institutional impact, external stakeholder impact, IT/e-learning impact (see matrix - appendix 1).

6. Research

a. Evaluation Research

The differentiation between 'research' and 'evaluation' can be clouded conceptually. This strategy takes the position of 'evaluation research' being the systematic application of social research procedures for assessing the conceptualisation, design, implementation and utility of interventions. In other words, evaluation researchers (evaluators) use social research methods to judge and improve’ (Rossi & Freeman, 1993). The CIPeL will utilise evaluation research to make judgements about the utility of the pedagogical strategies developed through the CIPeL. Kirkpatrick’s (1996) Four Levels model, summarised below, suggests the focus of evaluation research within the CIPeL.

Level 1. Reaction (opinions and feelings regarding the learning encounter)

Level 2. Learning (gained in terms of knowledge skills and attitudes)

Level 3 Behaviour (change in terms of actual performance in the workplace)

Level 4 Results or impact in the wider arena (sustainability in the workplace)
It is considered that these foci will be usefully considered through an action research framework within which the CIPeL’s adoption of a multi-method approach can operate. Action Research is useful in contexts where problem solving and improvement are the focus of the study. The combination of enquiry, intervention and evaluation makes the action research cycle well fitted to the aims of the CIPeL and as action research studies can be of any size and scope, the wide remit of the differing projects that will characterise the work of the CIPeL can be accommodated within such a framework. Various research methods can be utilised within an action research framework, the emphasis being on utilising the appropriate methodology to attend to the identified 'problems' in the study, thus fitting the ethos of a multi-method overall approach. The diagram below illustrates how an overarching action research approach that considers the processes of the CIPeL project (see evaluation section below) encompasses other cycles that evaluate smaller projects such as the learning objects and e-activities built by secondees.

**CIPeL action research cycle**

<table>
<thead>
<tr>
<th>University based IPE</th>
<th>Service based IPE</th>
</tr>
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<tbody>
<tr>
<td>Learners reactions</td>
<td>Change in behaviour</td>
</tr>
<tr>
<td>Change in attitude or perception</td>
<td>Changes in the organisation or delivery of care</td>
</tr>
<tr>
<td>Changes in knowledge or skill</td>
<td>Benefit to patients/clients</td>
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</tbody>
</table>
b. Research

Research in terms of knowledge creation will focus in a general sense on interprofessional pedagogy and the position of e-learning in the articulation of such pedagogy. This will encompass inquiry into unknown or poorly defined aspects of interprofessional e-learning, including staff and student experience of the interprofessional curriculum and its development. Research will be undertaken by members of the CIPeL team itself and also, through the award of small research grants and two PhD studentships, by individuals more broadly across the universities and their associates.

7. Evaluation

This section will refer to inquiry into the overall processes of the CIPeL. This inquiry will be conducted through the appointment of an external evaluator; the appointment of 'critical friends' from within each institution but not directly involved in the CIPeL, and self and team reflection. The external evaluation will focus on consideration of the 'knowledge products' of the CIPeL. The internal evaluation by the team members themselves and their critical friends will explore and reflect upon the processes of the collaborative partnership.

Insights into group processes will be captured through reflective statements, prompted by significant events either in personal note form or discussions/observations with/by internal evaluators. These processes carry the implications common to 'insider' inquiry and as such will be conducted within an ethical framework agreed within the CIPeL team and with the appointed evaluators.

8. Ethics and Research Governance

The CIPeL will embrace a robust ethics and research governance framework. Various specific issues may arise through the CIPeL's scope of work. A wide range of participants will be involved in research and evaluation processes including: university staff; students; lay participants; potentially NHS patients and social care clients and carers and NHS and social care staff. Good practice guidelines with respect to including patients and service users in student learning have been developed in a previous project (CUILU) and guidelines have been developed in a previous project (Forging Ahead) regarding the recording of patients and service users. These guidelines will be employed to ensure a positive experience for lay participants in any activity. In addition, all participants in any research or evaluation research work will be protected through such work undergoing appropriate ethical approval and research governance processes. Depending on the nature and scope of these projects, the
processes employed will be those of the university, the NHS or social care institutions.

All research and evaluation activities within the CIPeL will conducted under the British Educational Research Association (bera) Ethical Guidelines for Educational Research (revised version 2004). These guidelines are considered appropriate due to bera’s recognition of the multidisciplinary nature of the educational research community and the variety of paradigms and methods that arise from the diversity of this community. Also recognised are the problematics around certain concepts such as subjectivity and objectivity.

Bera's guidelines fit well with the underlying values of the CIPeL and all work conducted will adhere to the ethic of respect for the person, for knowledge, for democratic values, for the quality of educational research and for academic freedom. The CIPeL will follow the guidelines concerning: responsibilities to participants; responsibilities to sponsors of research and responsibilities to the community of educational researchers. In addition all participants engaged in the research and evaluation processes of the CIPeL, will agree to abide by the principles embodied in the CIPeL Research, Evaluation and Dissemination Code of Practice (appendix 2).

9. **Objectivity**

It is acknowledged that objectivity is a vexed concept, particularly in projects that employ mixed methods in which the primacy of objectivity in more quantitative approaches sits alongside the embracing of subjectivity of the qualitative paradigm. An added dimension is the difficulty of maintaining an objective, bias-free perspective in ‘insider’ projects such as the CIPeL - even where this may be thought desirable. CIPeL will take up Patten's (1990) advice regarding a pragmatic approach that avoids objectivity versus subjectivity debates, and adopts a stance of neutrality. Patten does not claim neutrality to be easily attainable, but calls on researchers to commit to being balanced in reporting both confirming and disconfirming evidence. CIPeL will aim for neutrality to be built into its processes through ensuring a diversity of evaluands and consistency in the use of research approaches, instruments and tools across the two institutions wherever appropriate.

10. **Selection and support of research and evaluation projects**

It is anticipated research and evaluation activities will be undertaken by members of the core CIPeL team as part of their role. Additionally, individuals and groups from the two institutions may apply for funding to undertake research/evaluation projects. Processes of selection have been devised to be as non-restrictive as possible in order to ensure innovation and seeding of ideas from as many individuals as possible. However, criteria will be applied to consideration of such applications to ensure that funding is granted to projects that meet the remit and scope of the interests of the CIPeL.
a. PhD studentships

Two PhD studentships will be awarded. One studentship will be based in and awarded by each institution, but it is expected that the field of study will encompass both institutions and research supervision will be shared across the institutions. The major areas of study for these studentships will be:

- Development of the curriculum in both institutions - exploring the impact of IPeL on IPL
- Staff experience across both institutions (e-learning and IPL)

b. Secondments for the development and evaluation of interprofessional 'units of learning'.

Much of the operational activity of the CIPeL centres on the development and dissemination of e-supported learning units designed to address interprofessional learning outcomes. A unit of learning is defined as a learning object plus a learning activity, a learning object being defined as 'a digitized entity that can be used, reused or referred to in technology supported learning' (Rehak and Mason, 2003), or more simply any digital resource that can be reused to support learning (Wiley 2003). Individuals from both institutions will be invited to apply, through an agreed process, for 'secondments' to the CIPeL with the purpose of creating units of learning (learning object and learning activity). The evaluation of the products of these secondments will be managed through an action research framework using an evaluation tool common to both institutions. The production of the learning objects will be supported by the CIPeL learning technologists.

Where required, members of the CIPeL team will provide support and research supervision for the conduct of the action research within which the learning objects and related learning activities are produced. These secondments will also accrue reward for both individuals and their seconding departments. This will be in the form of monetary payments to the staff development funds of departments and directly to the individuals taking forward the projects. These payments will be awarded on completion of the project.

c. Small research grants

Individuals from both institutions will be invited to apply for funding and support for small research projects. Students who are undertaking small research studies as part of programmed courses will also be eligible to apply for small grants. To ensure equity of opportunity and to ensure supported work fits within the remit of the CIPeL, the application for small research grants will mirror that for secondments to create and evaluate learning objects. In order to meet certain objectives of the CIPeL some smaller studies may be commissioned. Where required, members of the
CIPeL team will provide support and research supervision for the conduct of the studies.

10. **Research and evaluation matrix**

The matrix found in appendix 1 demonstrates the themes, categories and questions considered accessible to the monitoring, evaluation and research issues of the CIPeL. The matrix will be used to inform the direction of the monitoring, research and evaluation activities of the CIPeL.

**References**


Theme 1: Learner Experience (impact on perceptions & attitudes to IPL, identity)

**Reaction**
What were learner’s end of module and end of programme reactions to IPeL?

**Personal learning**
What did students learn?
To what extent did learners' knowledge of interprofessional collaboration/working and or skills improve?
What forms of interprofessional interaction and decision-making occurred as a result of using learning objects?
What learner characteristics allow them to benefit from IPeL?

**Change in behaviour**
To what extent did learners' perceptions/attitudes towards change?
Were there differences between different participating groups?
Did changes in approaches to learning penetrate into other modules?
Where any changes evident in behaviour of students, for instance, in practice based modules?
What is the nature of the relationship between teacher, student and group engaging in IPL?
Theme 2: Staff Experience (perceptions, attitudes, identity, impact on teaching)

Personal impact
To what extent did staff perceptions/attitudes change?
How have academic identities been challenged by IPeL?

Staff learning & support
To what extent and how did staff knowledge and or [learning and teaching] skills improve?
What forms of support did secondees access and value in working with CIPEL?

Change in behaviour
What forms of interaction and decision-making were evident within the community of staff facilitating IPeL?
Did changes in approaches to teaching penetrate into other modules eg: assessment of practice-based modules?
What is the nature of the relationship between teacher, student and group engaging in IPL?
Theme 3: Institutional Focus (impact and change)

Impact on faculty
What has been the impact of CiPeL on the faculty?
How successful has CiPeL been in building teaching capacity?
To what extent has educational research capacity been raised by CiPeL?
How did levels of engagement change over time?
Which staff development activities had the greatest impact on staff embracing IPeL pedagogic practices?

Impact on IPL initiatives
How has the interplay between CiPeL and the IPLP initiatives developed in both institutions and how has CiPeL influenced curriculum development?
What are the challenges to establishing IPeL as part of mainstream provision? What are the pressures, barriers and drivers inhibiting and enhancing the initiative?
How has ongoing development of innovative solutions been assured?

Impact on policy, strategy, processes
How have institutional processes, strategies and policies (such as IT strategy, T&L strategy, E-learning strategy, quality assurance, human resource strategy, mentorship arrangements) been challenged or developed by the CiPeL?
What has been learned about the process of change management in promoting IPeL?
How and by whom has IPeL been championed in the wider institution and how has this impacted on planning implementation and outcomes?
What part have the LTI and CHED played in supporting the establishment and embedding of CiPeL?
Theme 4: Team Focus (collaboration and team working, identity, perceptions and attitudes)

Collaboration
What has been learned about the nature of cross-institutional collaboration?
How have E-solutions promoted the collaboration?

Team identity and working
How was the team identity shaped, developed and sustained?
What are the challenges and opportunities of working in a distributed collaborative team?
What did the team learn from its own interprofessional make-up about interprofessional working?
How have individuals within the team developed during their involvement in CIPeL?
How is the team identity affected by institutional contexts?

Team in context
How did the team work towards embedding CIPeL in their institutions?
What is the impact of the expectations of others on the team and how can they be managed?
How can split roles resulting from part-time involvement in CIPeL be managed?
Theme 5: External Stakeholders (promotion and development, dissemination, extent of inclusivity, wider collaborations)

Inclusivity
To what extent and in what ways were service-users and carers involved in the work of CIPeL?
What involvement have practitioners had in CIPeL?
To what extent have students been involved in the developmental work of CIPeL?
What are the most effective models for engaging in CIPeL as an associate, student, practitioner etc?

Wider collaborations
To what extent were students able to engage with students from the other host institution and more widely, including students from overseas?
What makes for successful collaborations and which external collaborations have been most productive for CIPeL?

Promotion & Dissemination
How has CIPeL been promoted to academic and health and social care communities?
To what extent has awareness of e-approaches to IPL been disseminated to colleagues in other professional areas?
What is the optimal approach to knowledge information management that draws people in?
Theme 6: Technical performance - Learning from learning objects,

**IPL ness**
To what extent do materials developed by CIPEL facilitate students achieving the CULU capabilities?
What are the essential ingredients for making a learning object/activity interprofessional?

**General use of Los**
To what extent do access issues govern student learning from learning objects?
What is the nature of the relationship between learning object and learning activity?
How does learning object complexity impact on its use and reuse?
What makes for a successful learning object/activity?
How can learning object reusability be strengthened?
Could learning objects be used equally effectively in both VLE's?

**Repository**
What has been learned about establishing and maintaining a repository?
Theme 7: IPeL pedagogy

Models, theories and frameworks
What models can be developed to understand the impact of learning objects on learning?
Does ‘contact theory’ adequately underpin IPeL? Is there a more appropriate theory for IPeL?
What are the emergent pedagogies underpinning IPeL?
Has CIPeL work enhanced understanding of the learning capabilities framework in any way?
How successful has CIPeL been in developing a model of resource authoring as a form of publication?
What is the knowledge-building capacity of the CIPeL?

Pedagogy in practice
Can contact conditions in face-to-face teaching be reproduced successfully through e-learning?
Does IPeL overcome the barriers evident in face-to-face teaching and does it help develop confidence and position taking?
What are the optimal conditions for successfully facilitating learning using a learning object/activity?
How do the processes of making a learning object and developing a learning activity differ in terms of traditional approaches to developing teaching materials?
What types of assessment tools are relevant and appropriate to assessing interprofessional e-learning?
What are the perceptions of learner autonomy and how can it be preserved in the context of subjectifying influences and under pressure of surveillance?
## Monitoring Data

### Theme 1: Learner Experience

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many students’ accessed learning objects/activities? (Professional groups and conversion rates)</td>
<td>Learning from Learning Objects</td>
</tr>
<tr>
<td>How many reports of difficulties in accessing learning objects were received? Where were the difficulties?</td>
<td>Learning from Learning Objects</td>
</tr>
<tr>
<td>How user friendly/accessible/interactive is the CIPeL website?</td>
<td>Impact and Change</td>
</tr>
<tr>
<td>To what extent have students been involved in the developmental work of CIPeL?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How many students require IT development/training before accessing CIPeL?</td>
<td>Promotion and Development</td>
</tr>
</tbody>
</table>

### Theme 2: Staff Experience

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>How much time did secondees spend developing learning objects/activities?</td>
<td>Learning from Learning Objects / Collaboration and Team Working</td>
</tr>
<tr>
<td>How many secondees attended training sessions and what were the outcomes?</td>
<td>Promotion and Development / Collaboration and Team Working</td>
</tr>
<tr>
<td>How many staff secondments occurred?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>To what extent did levels of engagement change over time?</td>
<td>Impact and Change</td>
</tr>
<tr>
<td>What was the scope of work undertaken by secondees?</td>
<td>Learning from Learning Objects</td>
</tr>
<tr>
<td>How many people have been involved in the CIPeL excluding secondees (i.e. small projects)?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How many learning objects were produced?</td>
<td>Learning from Learning Objects</td>
</tr>
</tbody>
</table>
### Theme 3: Institutional Focus

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>How successful has CIPEL been in building capacity?</td>
<td>Impact and Change</td>
</tr>
<tr>
<td>How many expressions of interest turned into secondments or small research grant recipients?</td>
<td>Impact and Change</td>
</tr>
<tr>
<td>How successful was the staff development programme in encouraging staff to embrace IP e pedagogic practices?</td>
<td>Impact and Change / Promotion and Development</td>
</tr>
<tr>
<td>How many internal dissemination events have occurred and how does this relate to subsequent staff involvement?</td>
<td>Impact and Change / Promotion and Development</td>
</tr>
<tr>
<td>What range of promotional items (internal newsletters, team brief documents, e-bulletins) has CIPEL exploited?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>To what extent has awareness of e-approaches to IPL been disseminated to colleagues in other professional areas?</td>
<td>Promotion and Development</td>
</tr>
</tbody>
</table>

### Theme 4: Team Focus

<table>
<thead>
<tr>
<th>Question</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many conference presentations have the team completed?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How many training sessions have the team attended?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>Where has the work of CIPEL been presented?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>What processes did the team go through in establishing the core team?</td>
<td>Collaboration and Team work</td>
</tr>
</tbody>
</table>
### Theme 5: External Stakeholders

<table>
<thead>
<tr>
<th>Question</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many publications have been achieved?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How many practitioners were seconded to CIPEL?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How successful has CIPEL been in promoting IPeL to the HE community, nationally and internationally?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How have opportunities for traditional as well as more innovative approaches to dissemination been optimised?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>To what extent has CIPEL become embedded in HE communities and promoted external engagement?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>What is the relationship between external promotional activities vs. impact?</td>
<td>Promotion and Development</td>
</tr>
<tr>
<td>How many practitioners or other external users have accessed learning objects/activities?</td>
<td>Learning from Learning Objects</td>
</tr>
</tbody>
</table>

### Theme 6: Learning Technology

<table>
<thead>
<tr>
<th>Question</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>How successful has CIPEL been in creating new resources and a repository of these resources that is easy to access?</td>
<td>Technological performance</td>
</tr>
<tr>
<td>What was the frequency of access of areas of website?</td>
<td>Technological performance</td>
</tr>
<tr>
<td>Did access fluctuate over time?</td>
<td>Technological performance</td>
</tr>
<tr>
<td>Which parts of the website proved most popular?</td>
<td>Technological performance</td>
</tr>
<tr>
<td>How has the IT infrastructure in both institutions facilitated and inhibited the technological aspects of implementing CIPEL initiatives?</td>
<td>Technological performance</td>
</tr>
<tr>
<td>How can quality assurances mechanisms are built into learning eg: learner feedback built into activity?</td>
<td>IPeL Pedagogy</td>
</tr>
</tbody>
</table>

September 2006
OUTPUT 1

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