



**Maintaining a sustainable Future
for IT in Higher Education**

Thursday 16th June 2011

Time: 11:00 - 11:30

From Camels to Critical Friends: Intervention Strategies for Sustainable Innovation

ABSTRACT

Managing and embedding large-scale innovation in a university environment is complex. Stakeholder engagement and change management are often the most challenging aspects and it is often difficult for project teams to assess progress whilst in the midst of a demanding schedule. EUNIS aims to help members share experience hence successful models for knowledge transfer within communities are of interest. One model of practitioners supporting one another in effecting innovation was presented to EUNIS 2005. The model, known as CAMEL (JISC infoNet 2006), has since been widely adopted in the UK and further developed across a range of innovation programmes. Another increasingly popular approach is the use of a 'Critical Friend', often (but not exclusively) associated with projects working in CAMEL groups. This paper will describe the role of Critical Friend in facilitating sustainable innovation/change and explore the developing evidence base on its effectiveness - drawing on experiences from the UK. We will look at what effective Critical Friends do and their key skills; the potential benefits of this role; how the use of Critical Friends compares with other support methods e.g. in terms of value-added/cost-effectiveness and potential disadvantages or issues. EUNIS members will be invited to consider the possibilities for member organisations to provide Critical Friends to projects and to undertake CAMEL activities (both within their own universities and with others) as well as to contribute to the ongoing development of a community of practice around the use of Critical Friends (www.critical-friends.org).

1. INTRODUCTION

The Problem of Change

Managing and embedding large-scale innovation projects in a university environment is a complex task. Universities tend to be better known for their traditions than for organisational innovation. Sweeping global economic changes are now forcing universities in many countries to reappraise how they do things and to contemplate radical changes in structures and processes in order to survive and prosper. New technology has long been championed as both a driver and a facilitator of change in universities (Bates 2001; Cuban 2001; DfES 2003; Oppenheimer 2003; Ryan et al. 2000) but, notwithstanding some successes, has rarely lived up to the promises, particularly in the field of pedagogical innovation (Bell et al. 2002; Carr 2003; Chester 2006; Hannafin and Kim 2003; Marshall 2005; Means et al. 2009; Oliver 2005; Sharpe et al. 2006).

Conventional business models have been similarly unsuccessful in universities: most likely because universities are not businesslike systems. They comprise large numbers of people who tend to be largely intrinsically motivated and who see themselves more as a member of their research discipline's community of practice than they do of their employing organisation. This makes them much less susceptible to the kinds of incentives and sanctions used to drive change in commercial organisations. Academics are also necessarily sceptical, which makes it hard to win their support for big new ideas. These characteristics make 'top down' institutional change strategies difficult to implement. On the other hand, 'bottom up' approaches usually founder on the rocks of competing interests, making lack of scalability another significant barrier to change (Marshall 2010). Thus, while universities are facing uniquely challenging times, the means of achieving effective change remain elusive.

A key to successful innovation is ensuring that proposed changes are relevant to not only the organisation as a whole, but to the staff and students who collectively comprise the university (McCarthy and Samors 2009).

'A lesson here is very much about the need to be responsive to the institutional priorities and changes and not try to gain engagement in a project that would be seen to be out of step with this. This does mean making the project appeal to a wide range of people and there is a need to make the benefits to them engaging clear. These may be different in a range of stakeholders and the project needs to have the flexibility to permit this to happen.' City University, UK PREDICT Project Interim Report 18 October 2010.

Stakeholder engagement is indeed often the most challenging aspect of change management and it is often difficult for project teams seeking to develop and embed major cultural, technical and organisational changes to assess progress whilst in the midst of a demanding schedule. EUNIS aims to help members learn from one another, hence successful models for achieving this are of considerable interest.

2. APPROACHES TO SUPPORTING CHANGE

In recent years, universities in the UK have undertaken numerous innovation projects run as UK-wide programmes and funded by agencies such as the Higher Education Academy and JISC. It has been found that effective support to such innovation projects is essential to their success, particularly in ensuring sustainable innovation, embedding of new practice and ultimately, institutional enhancement. The Higher Education Academy and JISC have experimented with, and evaluated, different models of project support, through a range of initiatives. Two models that have proven particularly effective, whether used separately or together, are: CAMEL groups and Critical Friends.

CAMELS

The concept of CAMEL groups, whereby practitioners support one another in effecting innovation, was presented to EUNIS 2005 when the idea was still relatively new. It has since been widely adopted in the UK and developed across a range of publicly-funded innovation programs.

The idea behind CAMEL groups (JISC infoNet 2006) has its origins in a self-help group formed many years ago by a number of small farmers in Uruguay. The credit for the idea of applying a Uruguayan farming model to the UK education sector goes to Seb Schmoller, CEO of the Association for Learning Technology (ALT) whose uncle was a member of the farmers group. In the UK the model was adopted for a project that set out to explore how institutions who were making effective use of e-learning, and who were collaborating in regional lifelong learning partnerships, might be able to learn from each other in a Community of Practice based around study visits to each of the partner institutions. The original CAMEL name was short for Collaborative Approaches to the Management of e-Learning, but the name and the concept have since moved on beyond being an acronym. Key features of the CAMEL model are:

- Information exchange and collaborative problem solving between enterprises engaged in similar activities and pursuing similar goals.
- Strong emphasis on tacit knowledge and making this explicit
- High levels of trust and openness between otherwise competing parties.
- Collective events where the parties come together, hosted by one of their members, to provide support and assistance to each other.

CAMEL groups usually operate via face-to-face events which may take the form of study visits to each of the participating institutions. These CAMEL events are planned collaboratively, documented before and after, focused on things which matter to the participants and, very importantly, involve a social dimension. Social activities are vitally important for building trust among people who may not know each other or who are more accustomed to regarding each other as competitors. They help to build common experiences that act as social ties, especially if they are positive, relaxing and enjoyable.

Another important feature of CAMEL events is that they are expertly facilitated, which is where the notion of a 'Critical Friend' becomes important. The Uruguayan farmers employed an external consultant to take on this role. In the original CAMEL project the participants took on the role of critical friends to one another. External input was an important element of the model but this role was more one of facilitation. Later adaptations of the model (e.g. The Academy/JISC Pathfinder

Programme and eLIDA CAMEL Project, JISC 2007) have introduced the role of critical friend as this was felt to add an important extra dimension to the relationship.

Critical Friends

“The Critical Friend is a powerful idea, perhaps because it contains an inherent tension. Friends bring a high degree of unconditional positive regard. Critics are, at first sight at least, conditional, negative and intolerant of failure.

‘Perhaps the critical friend comes closest to what might be regarded as ‘true friendship’ - a successful marrying of unconditional support and unconditional critique.’ (A John MacBeath, Professor of Education Leadership, Cambridge University, cited on the Critical Friend Network Web site).

A significant number of projects in the UK now appoint somebody to the role of Critical Friend to the project. Whilst there is no standard ‘job description’ for a Critical Friend, the emphasis on the role being both supportive and challenging is key to the success of this initiative. The relationship has to be one of trust and the Critical Friend must be convinced of the worth of the project/s they are supporting and focused on their success. The ‘friend’ element cannot be overstated. The term ‘critical’ can have negative connotations (although attitudes to the term may vary according to the background of the project participants as ‘critiquing’ is well established in the arts as a positive approach developing a piece of work). Projects will only obtain maximum value from the objective outsider perspective if the foundations of trust and support have already been laid. The role must not be confused with that of an Expert Consultant which usually comprises specialist expertise in particular fields as required and is usually in the form of short-term engagement to resolve particular issues rather than the type of lasting engagement implied with the Critical Friend.

The UK examples quoted in this paper tend to involve external consultants supporting a group of projects working together as a formal, government-funded programme and the relationship between CAMEL and Critical Friend approaches is of particular interest. It should however be noted that the concept of a Critical Friend can work just as well within a single project and that a Critical Friend can even come from another part of the same university. The Critical Friend model has been used in different contexts - with single projects, with internal colleagues or external consultants as friends, with internal and external funding, in ‘non-project’ areas such as the quality enhancement of learning programmes and/or as part of support systems for major multi-project initiatives (Achinstein and Meyer 1997; Bambino, 2002; Costa and Kallick 1993; Dahlgren et al. 2006; Kember et al. 1997; Hill 2002; Koo 2002; Swaffield 2007; Swaffield 2008).

3. WORKING WITH A CRITICAL FRIEND

It is of course important to select the right Critical Friend in the first place. These are some of the characteristics that you might look for:

- The Critical Friend should be an experienced professional in the same or a closely related area to the one in which the project takes place. Critical Friends are often ‘all-rounders’ who can relate to experience in a range of areas within their field, although in some cases, it may be more appropriate to appoint a Critical Friend with a very particular (often technical) expertise.

- The Critical Friend should have experience of working as a project leader for similar projects and should have experience of being a 'user' of the type of outcomes the project or process aims to achieve. Such experience allows the Critical Friend to advise the project on the interests of all the different stakeholders and the way their expectations can be managed.
- The Critical Friend should have substantial experience of techniques commonly used in activities such as evaluation, consultancy, mentoring and management.
- The Critical Friend should have, through current or recent experience, a sound understanding of the organisational and/or political context of the project.
- The Critical Friend should have an extensive network of contacts that may be relevant to the project. They should also be up-to-date with national and, where appropriate, international initiatives and organisations that might benefit the project. Ideally they will also have knowledge of and experience of bidding for funding so that they are able to advise the project team on how to keep the project going, if desired.
- The Critical Friend will not be personally or professionally involved with any aspect of the project or process to which they are appointed. This avoids any conflict of interest or any concerns about possible political motivation

The Critical Friend will need to establish their credibility with the project team early on. This is especially true if the Critical Friend has been selected for them by a project sponsor or funding body. They may be suspicious of an outsider so the Critical Friend will need to demonstrate how they can contribute to the project/CAMEL group development in a meaningful way. Group development cannot be imposed from outside, it needs to be developed from within with active participation from members, so the process needs to be incremental and flexible, responding to members needs and adapting to changes in the environment to create conditions in which the process is owned and driven by members. Key aspects include shared goals (identifying themes that collectively members wish to address), developing habits of collaboration and consultation within the community and developing trust and mutual appreciation.

Even having laid all the groundwork well there are bound to be some tricky issues that arise. The following section looks briefly at some common issues and solutions.

Ethical Issues

Ethical issues stem directly from the unusual nature of the role: impartiality, confidentiality, anonymity. The temptation to help project teams by sorting out management problems or difficulties with operational processes is often great, particularly if a project team consists of inexperienced members or if the leadership of a project is weak. The Critical Friend may also be invited by the project team to take on particular responsibilities or to act as mediator between opposing parties. However, in order to retain objectivity, the Critical Friend must avoid getting too involved. Alternative solutions include encouraging the use of a mentor for the project leader, advising on redistribution of tasks and responsibilities within the team or inviting the project evaluator to look into specific issues. These approaches are more likely to be a more sustainable solution for all and preserve the position of the Critical Friend as impartial.

A particularly challenging element of the role involves the relationship with the body funding the project where this body appoints a Critical Friend to help projects reach their potential. Even where the Critical Friend is directly employed by the funding body they cannot report back to them on specific project activities, successes and concerns without prior approval from the project as this would create an obvious conflict with their role with regard to the project team. This can cause problems for both the funding body and the Critical Friend themselves, particularly when there are serious concerns about the achievements of the project team, or the project management is clearly weak. The Critical Friend does have an ethical duty to feed back to relevant stakeholders (e.g. funding masters) any recurring problems and/or opportunities affecting the projects, where this is to the benefit or detriment of the project(s) and the project teams are unable to raise such matters effectively themselves. Where issues do arise in such cases it is important to ensure that they are reported as generically as possible and do not include aspects or details that can be related to any individual or project in such a way as to undermine trust.

Practical Issues

The first issue for Critical Friends in their dealings with a project team is to establish the expectations of key stakeholders of the Critical Friend role and to establish mutual understanding. This is best achieved by having a full and open discussion with the relevant parties about the role at the earliest available opportunity and supporting this by providing some formal statement of the role. Project teams who have not worked with Critical Friends before are likely to be uncertain about a number of areas, all of which should be clarified in an opening meeting, including:

1. reporting mechanisms
2. the distinction between critical friendship and formal evaluation
3. what they can expect by way of support (how much and in what areas)
4. the relationships between projects which the Critical Friend will facilitate
5. the relationship of the critical friend to the programme or funding body.

This last point is particularly important because the funding body or other major stakeholder may have expectations of the critical friend that, because of the ethical issues identified above, can not be met and so their expectations too need to be managed.

Secondly, if the Critical Friend is working with multiple projects in a CAMEL group, there is a need to clarify regarding participation in the group activities. The group needs to discuss and agree what constitutes an acceptable level of 'engagement' and implement measures for monitoring this (e.g. taking on responsibilities such as hosting site visits, running a Wiki, etc. and following up on these). This is likely to be based on a sense of 'give and take' and fair distribution of responsibilities that is initiated at the initial meeting and reviewed/extended at subsequent meetings.

'At the very start of Cluster activities [our critical friend] emphasised the importance of all cluster members attending the meeting and social aspects of the two-day event. The collegiate atmosphere that this format created has been very important in the quick generation of effective working relationships. Cluster members discuss things frankly and openly, share successes and develop conference proposals and presentations collaboratively.' Birmingham City University T-SPARC Project Interim Report 29 October 2010.

There could be many reasons for lack of engagement of individual projects, for example changes in key personnel, need to protect IPR, or to hide some failing, lack of time/budget, perceived lack of sufficient return on the investment, significant disagreements or personality clashes, etc. A member may not even realise that others perceive them as disengaged. It is important therefore that the Critical Friend keeps an open mind and adopts a supportive stance which helps both the individual projects and the cluster achieve their aims. Patience is also needed. The level of engagement can be expected to be low initially, growing over time as projects perceive benefits to engagement and consequently invest more in group activities. This is an iterative process and the rate of development is unlikely to be uniform across all participants. It needs to be understood that this is OK.

In summary, the Critical Friend role is full of contradictions, and an effective Critical Friend must balance these well. One paradox is that of maintaining a 'close distance'. The Critical Friend will never become part of the project and share none of the responsibilities of a project manager, but will need to be knowledgeable about the project and create a way of working with the project team which is close enough to allow frank and honest discussion. Similarly, a Critical Friend helps project teams to become reflective, but does not take on the role of evaluator. Related to that, they will help a project team recognise its difficulties, challenges and risks, but will not take on responsibility for managing any such conflicts or concerns. Instead, they will help a project team to see past the obstacles and find a solution, by enabling them to become more objective, and by supporting reflection.

The final paradox of the Critical Friend role is the overarching importance of making oneself redundant. In an ideal world the Critical Friend will succeed in supporting a project team to a point where they are able to find their own way to achieve their goals well before the end of the project. In essence, the Critical Friend is aiming to make their role redundant once the project team itself has acquired the skills, abilities and critical distance to achieve and go on to repeat success.

4. AN EXAMPLE OF APPLYING THE MODELS

One of the largest implementations of the Critical Friend role supporting CAMEL groups occurs in the JISC Curriculum Design and Delivery programmes. These programmes (<http://www.jiscinfonet.ac.uk/curriculum>) represent a large investment in innovation: £8m over a four year period.

In all, 27 projects supported by 7 critical friends have been exploring how technology can help address some of the major curriculum challenges faced by the sector at the present time including learner engagement, widening participation, personalised learning, engaging external stakeholders, employability and workforce development and flexible delivery. Collectively this is the single largest co-ordinated programme of innovation and change management in UK Higher Education. Within the JISC Curriculum Design and Delivery Programmes, Critical Friends were conceived as individuals who could support the projects because of their standing and credibility in the field of curriculum design and delivery, able:

- To provide strategic advice and guidance to projects from an external perspective, providing insights and raising awareness of relevant developments and initiatives in the sector
- To invite project teams to reflect and review their progress and activities, acting as both mentors and coaches to project teams, in both a supportive and challenging role

- To identify synergies and facilitate relationships between projects in the programme
- To provide academic leverage to help projects establish and maintain relations with senior managers especially those at Pro-Vice Chancellor /Pro-Rector level.
- To act as ambassadors for the projects through their networks of contacts

The projects in each programme were grouped into CAMEL groups (each consisting of 3-5 projects) and each group was assigned a Critical Friend. At the start the emphasis of the Critical Friend role was to 'identify synergies and facilitate relationships between projects. The primary role was thus to facilitate the development of the group into an effective CAMEL network and arrange a series of structured study visits to each of the projects. In so doing the Critical Friend was expected to become familiar with each of the projects and through this to develop a relationship of trust.

It was expected that, once the relationships had been formed, the projects would also wish to develop more individual relationships with their Critical Friend and use them as a sounding board outside of their CAMEL interactions. This phasing of the interactions was intended to allow the relationship to develop in a more natural way, avoiding the risk of projects feeling they were under an excessive amount of external 'scrutiny' during the phase when they were receiving quite a lot of direction about how to set up and manage their projects effectively. The relationship between Critical Friends and projects will ultimately be a personal one but, based on the experiences of other structured programmes in the UK (particularly Pathfinder), and the need to provide consistent support mechanisms across the programmes, Critical Friends have been encouraged to work within fairly tightly defined terms of reference and collectively agree a common approach to delivering a set of activities for their CAMEL groups.

In the UK examples (especially the JISC programmes described above), as well as engaging with individual projects and CAMEL groups, the Critical Friends have also tended to spend time engaging with the bodies responsible for overall management of the programmes to feed through emerging issues at key points. As such the Critical Friends sit at the nexus between the projects and the programme team which is ultimately responsible to the government funding body. It is vital that this team has a shared vision of the programme as a whole and that regular two-way communications are established. Skills required include:

- Expert strategic level knowledge and understanding of the key areas covered by the programme
- Experience of working with a range of different institutions
- Experience of coaching or mentoring at a strategic level

In the example of the JISC Curriculum Design and Delivery programmes the Critical Friend was felt by projects to be one of the most valuable support mechanisms available to them. Some of the benefits are discussed below.

5. BENEFITS ACHIEVED

This paper has necessarily had a long pre-amble because it is necessary for the reader to be familiar with the models underpinning the approach, not least to understand how they might be applied in other contexts. It is hoped that this introduction will encourage readers to use the references to find out more about the projects that have used the approaches and the success they achieved. It is however worth summing up briefly why we feel the approaches have value.

The authors of this paper have been involved in the JISC Curriculum Design and Delivery programmes (representing both the funding body responsible for managing the programmes and Critical Friends to the programmes) and have experience of CAMEL and Critical Friend roles in other contexts. Based on this experience, we firmly believe that these forms of support (especially when combined) have allowed us to deliver better and more sustainable projects.

Project teams are often under great pressure to deliver results and can sometimes find themselves 'fire-fighting' rather than thinking strategically. The presence of a Critical Friend who can help them spot early warning signs of things that may cause them problems, take an objective view of issues and place their own issues into a wider context has been an important factor in ensuring the projects achieve their goals. Participation in CAMEL groups has helped projects see that they are not alone in the issues they face and has helped them share ideas and examples of how problems can be solved. We said at the beginning of this paper that stakeholder engagement is key to successfully implementing and sustaining innovation and that this represents a particular challenge in the university context. One of the most useful outcomes of the JISC Curriculum Design and Delivery programmes has been the extent to which, we have developed our collective understanding of the issues involved and come up with a model for stakeholder engagement (Birmingham City University 2010) and a series of tools, techniques and approaches for effective engagement ranging from the use of Rich Pictures to effect business process change (University of Greenwich 2010) through to the use of a board game to engage academics in discussion about course design and the range of technologies they might use to enhance specific learning experiences (Kingston College 2010).

Sustainable innovation in a university environment is dependent on achieving willing buy-in from a broad spectrum of stakeholders. This is less likely to be achieved through project methods that engage stakeholders as passive responders and recipients of change. Participatory design methods offer greater promise of buy-in than more conventional systematic efforts that start with presumptions of known and agreed objectives and performance measures. But participatory methods, such as those described above, necessarily entail high levels of uncertainty with respect to duration, costs and outcomes. Not surprisingly they appear to be high risk compared with more conventional approaches. It is therefore understandably difficult for internal teams to adopt this approach. The Critical Friend role, based on distance, impartiality, trust and credibility has the potential to act as an agent for change, empowering project teams to adopt what may seem at first uncomfortable and unpromising strategies that ultimately hold out the promise of truly sustainable innovation. The fact that the approaches are trialled across CAMEL groups and the results compared adds weight to the belief in their effectiveness.

As a result of these mature approaches to stakeholder engagement, each of which is suited to the particular institutional context, we can have some confidence that these projects are actually able to

effect institutional transformation. The innovative work they are doing is owned by the stakeholders involved so that, rather than fading away at the end of the funded project, the innovation is sustained and embedded so that it becomes part of the way the institution operates.

6. WHAT ARE THE IMPLICATIONS FOR EUNIS?

Having discussed the two models, and how they can work separately and in combination, it is worth reflecting on how they might be applied within the EUNIS community.

Guidance materials on setting up a CAMEL network are freely available (JISC infoNet 2006) and these have been recently supplemented by a set of online resources entitled 'Critical Friends: an Effective Practice Guide' (JISC infoNet 2011). There is also a network for people who act as Critical Friends to projects (see references) and EUNIS members who take on this role are welcome to join this growing community of practice. All of these resources can be used to apply the techniques within your own institution/projects or as part of a wider community.

There is a history of informal peer support within EUNIS (especially amongst groups such as the e-Learning Task Force) and this raises obvious possibilities for CAMEL type groupings around topics of specific interest. The development of learning spaces is one such example where the cost of participating in study visits and face-to-face workshops may well be justified by the benefits.

Similarly the EUNIS community consists of a large group of professionals who may be able to act as Critical Friends to one another's projects. This is not something to be undertaken lightly: it is unlikely that a Critical Friend from another country will have the detailed strategic and contextual overview we suggest is normally a requirement for the role but there may be circumstances where a more distant perspective is useful especially where the individual brings a broad understanding of how things are done in other places.

Both of the approaches can be relatively cost effective in comparison to other types of training and consultancy and this is likely to become an increasingly important factor in planning support for future projects.

We hope this paper will encourage others to try these models and to feed back on their experiences through the various community networks available.

7. REFERENCES

- ❖ Achinstein, B. and Meyer, T. (1997). The uneasy marriage between friendship and critique: Dilemmas of fostering critical friendship in a novice teacher learning community. Paper presented at the *Annual Meeting of the American Educational Research Association*, March 24-28, Chicago. ED 412188.
- ❖ Bambino, D. (2002). Critical Friends. *Educational Leadership*, 59(6), 25-27. Costa, A. and Kallick, B. (1993), *Through the Lens of a Critical Friend*, *Educational Leadership* 51:2, 49-51
- ❖ Bates, T. Farrel, G. M. (ed) (2000) The continuing evolution of ICT capacity: The implications for education. *The changing face of virtual education* pp. 29-46. The Commonwealth of Learning , Vancouver
- ❖ Bell, M. , Bush, D. , Nicholson, P. , O'Brien, D. and Tran, T. (2002) *Universities online: A survey of online education and services in Australia*. Department of Education Science and Training , Canberra, Australia
- ❖ Birmingham City University (2010) T-SPARC Project Stakeholder Engagement Model. Retrieved 30th April 2011 from <http://jiscdesignstudio.pbworks.com/w/page/27046505/T-SPARC%20Stakeholder%20Engagement%20Model>
- ❖ Carr, N. (2003) IT doesn't matter. *Harvard Business Review* 81:5, pp. 5-12.
- ❖ Chester, T. M. (2006) A roadmap for IT leadership and the next ten years. *Educause Quarterly* p. 29. <http://www.educause.edu/apps/eq/eqm06/eqm0626.asp> (accessed 26 April, 2010)
- ❖ Critical Friends Network. Retrieved 30th April 2011 from <http://www.critical-friends.org/>
- ❖ Cuban, L. (2001) *Oversold and underused: Computers in the classroom* Harvard University Press , Cambridge, MA
- ❖ Dahlgren, L.O., Eriksson, B.E, Gyllenhammar, H., Korkeila, M.S., Rothoff, A., Wernerson, A. and Seeberger, A. (2006) To be and to have a critical friend in medical teaching, *Medical Education* - Oxford, 40:1-72
- ❖ DfES (2003) *Towards a unified e-learning strategy* Department for Education and Skills , London
<http://www.dcsf.gov.uk/consultations/downloadableDocs/towards%20a%20unified%20e-learning%20strategy.pdf> (accessed 26 April 2011)
- ❖ Hannafin, M. J. and Kim, M. C. (2003) In search of a future: A critical analysis of research on web-based teaching and learning. *Instructional Science* 31 , pp. 347-351.
- ❖ Kember, D., Ha, T.S., Lam, B.H, Lee, A., NG, S., Yan, L. and Yum, J.(1997) The diverse role of the critical friend in supporting educational action research projects, *Educational Action Research*, 5,3:463-481.
- ❖ Kingston College (2010) KUBE Project: Curriculopoly Board Game. Retrieved 30th April 2011 from <http://jiscdesignstudio.pbworks.com/w/page/24176193/Curriculopoly-board-game>
- ❖ Hill, G. W. (2002). *Critical friendship*. Australia: Mottram d'Hill & Associates.
- ❖ JISC (2007) e-Learning Independent Design Activities for Collaborative Approaches to the Management of e-Learning (ELIDA CAMEL Project). Retrieved 30th April 2011 from <http://www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/elidacamel>
- ❖ JISC infoNet (2006) CAMEL: Collaborative Approaches to the Management of e-Learning. Retrieved 30th April 2011 from <http://www.jiscinfonet.ac.uk/camel>

- ❖ JISC infoNet (2009) JISC Curriculum Design and Delivery Projects. Retrieved 30th April 2011 from <http://jiscdesignstudio.pbworks.com/w/page/24275132/JISC-Curriculum-Design-and-Delivery-projects>
- ❖ JISC infoNet (2011) Critical Friends: an Effective Practice Guide. Retrieved 30th April 2011 from <https://camels.pbworks.com/w/page/35213174/Home>
- ❖ JISC infoNet (2011) Stakeholder Engagement Resources produced by the JISC Curriculum Design and Delivery Projects. Retrieved 30th April 2011 from <http://jiscdesignstudio.pbworks.com/w/page/12458512/stakeholder-engagement>
- ❖ Koo, M. (2002) The missing Critical Friends' voices: An angel's heart or a beautiful mind? Marianne Koo, Hong Kong Institute of Education, AARE (*The Association for Active Educational Researchers*) Conference Paper KOO02139. <http://www.aare.edu.au/02pap/koo02139.htm> (accessed 26 April, 2010)
- ❖ Marshall, S. (2005) *Determination of New Zealand tertiary institution e-learning capability: An application of an e-learning maturity model: Report on the e-learning maturity model evaluation of the New Zealand Tertiary Sector* University Teaching Development Centre, Victoria University of Wellington , Wellington, New Zealand
- ❖ Marshall, S. (2010) Change, technology and Higher Education: are universities capable of organisational change? *Research in Learning Technology* 18: 3, pp. 179-182.
- ❖ McCarthy, S. A. and Samors, R. J. (2009) *Online learning as a strategic asset: Volume 1: A resource for campus leaders* Association of Public and Land-grant Universities <http://www.aplu.org/NetCommunity/Document.Doc?id=1879> (accessed 26 April, 2010)
- ❖ Means, B. , Toyama, Y. , Murphy, R. , Bakia, M. and Jones, K. (2009) *Evaluation of evidence-based practices in online learning* US Department of Education , Washington, DC
- ❖ Oliver, R. (2005) Ten more years of educational technologies in education: How far have we travelled?. *Australian Educational Computing* 20:1 , pp. 18-23.
- ❖ Oppenheimer, T. (2003) *The flickering mind* RandomHouse , New York
- ❖ Rudd, T., Colligan, F. and Naik, R. (2006) *Learner Voice: a handbook from Futurelab*. Bristol, Futurelab
- ❖ Ryan, S. , Scott, B. , Freeman, H. and Patel, D. (2000) *The virtual university: The internet and resource-based learning* Kogan Page, London, UK
- ❖ Sharpe, R. , Benfield, G. , Roberts, G. and Francis, R. (2006) *The undergraduate experience of blended e-learning: A review of UK literature and practice*. Higher Education Academy , York, UK
- ❖ Swaffield, S. (2007) Light touch critical friendship, *Improving Schools*, 10,3: 205
- ❖ Swaffield, S. (2008) Critical friendship, dialogue and learning, in the context of Leadership for Learning, *School Leadership and Management*, 2008, 28, 4: 323
- ❖ University of Greenwich (2010) UG-Flex Project use of Rich Pictures. Retrieved 30th April 2011 from <http://jiscdesignstudio.pbworks.com/w/page/24763278/Rich-Pictures>