



# Double-loop Learning across Healthcare and Teaching Professions

*Pauline Joyce<sup>1</sup>, Paula Kinnarney<sup>2</sup>*

*<sup>1</sup> RCSI Institute of Leadership, Dublin, Ireland*

*<sup>2</sup> Education Department, National University of Ireland Maynooth, Ireland*

*Received April. 2014, Revised June. 2014, Accepted June. 2014, Published Sept.. 2014*

**Abstract:** This paper outlines a qualitative evaluation study of a leadership symposium, which was a partnership initiative, developed across two organizations and two professional groups (teaching and healthcare). It grew from a serendipitous meeting of like-minded academics, who were attempting to achieve similar outcomes with their student groups; namely, to disseminate graduates' action-oriented projects in a public forum. Data was collected from graduates (n=16) via open-ended questions and reflections on their experiences of carrying out their projects. The findings of the study are presented around the challenges, opportunities and learning from leading these change initiatives, using double-loop learning as a framework to interpret these findings. The symposium, offered a unique opportunity for exchange of learning across professions, from an inter-organizational level.

**Keywords:** Public-Private Partnership, Double-Loop Learning, Organizational Learning.

[ E-mail: [pjoyce@rcsi.ie](mailto:pjoyce@rcsi.ie)<sup>1</sup>, [paula.kinnarney@nuim.ie](mailto:paula.kinnarney@nuim.ie)<sup>2</sup> ]



## **Introduction**

This evaluation study explores the challenges and opportunities experienced by teachers and healthcare professionals in leading change across their organizations. A public-private partnership approach was taken to disseminate these experiences via a leadership symposium. According to Smith and Wohlstetter (2006) some educational leaders have experimented with a public-private partnership approach to expand resources and build capacity. However, there are a variety of partnership approaches. Quite apart from the opportunity to innovate, as is the experience discussed here, Lowndes and Skelcher (1998) highlighted the emphasis put on ideas which created flexibility, synergy, added value and leverage. These ideas are still relevant today. The approach presented here is based on an informal partnership of the authors (one from a public university and the other from a private college) emerging from an interest in exploring the similarities and differences across the teaching and healthcare professions, where students were tasked with the same remit of leading change projects in their organizations. During the planning of this approach a more formal partnership was taking place between the two organizations where the authors worked. This initiative ( a leadership symposium with two groups of professions) was viewed by senior staff of the respective institutions, as an inspirational leadership approach (Zenger and Folkman, 2009), where the authors motivated each other and graduates, by their actions, more than their words. The authors were, themselves, leading a project, which was a new partnership initiative, never attempted previously across the organizations.

Reflecting back on the planning for the leadership symposium, the ten success factors identified by Jacobson and Choi (2008), although not explicitly followed, fit well with how the partnership evolved. The unifying vision, as the first success factor, for both authors, was the development of synergies across the professions and learning from these interactions. Commitment, open communication and trust (factors 2 and 3) were high on the priority list with many informal meetings and phone calls regularly. When it came to agreement on keynote speakers there was a willingness to compromise and collaborate (factor 4) and this showed a high level of respect (success factor 5) across organizations. The learning for the graduates in presenting their work publicly met the need to disseminate their work to a wider audience and fits well with success factor 6 of community outreach. Political support (factor 7) together with expert advice and review (factor 8) came from the top level of respective organizations as there was buy-in from the beginning from senior management. A sense of risk awareness (factor 9) was important too. Previously a symposium had been held in one of the organizations so that the format, with one set of graduates and one profession, previously worked well. Bringing together a new organization and an additional professional group was a risk, but the motivation of the authors was high, to make this a success. Finally clear roles and responsibilities (success factor 10) were outlined from the start so that the partnership worked smoothly from beginning to end.

There is a paucity of research exploring the experiences across professional groups using an action-oriented research approach to guide change. Stark (2006) carried out a qualitative study with groups of nurses and educators where she facilitated action learning sets for both groups. Stark (2006) gathered data via field notes from participant observations. She also collected data via a reflective journal of critical incidents related to set meetings, over a 3 year period. In addition, she interviewed members from both groups during and after the



action learning set meetings. Stark undertook eight interviews with four of the groups (two of each professional group) and eleven interviews with individual members of the action learning sets, who agreed to take part (seven educators and four nurses). Findings of this study highlighted that learning was immense and 'sometimes painful', especially when individuals confronted attitudes and behaviours in themselves that they criticised in others (Stark, 2006:29). This exploration of the professional identity of the teacher and the nurse was further developed by Stronach et al (2002) who suggest that the development of the professional requires trust and that such trust implies risks.

According to Roberts (2004) doctors are continually developing as professionals and are not only expected to adapt to changes in medicine but they are also required to adapt to a changing society. This is true of all healthcare professionals. While much of the literature suggests that teacher leadership is more likely to occur and to flourish within schools that have a culture of trust and a collaborative climate (Tschannen-Moran 2004, Donaldson 2006, Muijs and Harris 2006, Yost et al. 2009), Fairman and MacKenzie (2012) found teachers leading within schools that did not have a supportive or collegial environment.

The purpose of this paper is to present qualitative data which formed the responses to four key questions exploring the experiences of teachers and healthcare professionals who presented their action-oriented projects at a public leadership symposium. The program which the teachers completed was a Post-Graduate Diploma in Educational Leadership, taking place over one academic year. It aims to enhance the capabilities of teachers in their current work and to support their preparation for future senior leadership positions. The students are required to carry out an action-oriented project, which involves implementing an improvement in their school settings. The master's in Leadership in Health Professions Education on the other hand, focuses on the standard of learning and teaching for health professionals, while at the same time enhancing leadership skills for occupying executive and management posts in health education. Similar to the teacher group the healthcare professionals are required to carry out an action-oriented project focusing on an improvement in education and practice (Joyce and Al Fahim, 2013).

## **Methodology**

This was a qualitative evaluation study, consisting of a purposive sample of 16 graduates from healthcare and teaching. The aim of the study was to explore the challenges and opportunities experienced by teachers and healthcare professionals in leading change across their organisations. The projects of sixteen graduates, eight from the teaching profession and eight from healthcare were presented during a leadership symposium. The department where the teachers underwent their postgraduate diploma focuses on education of teachers from kindergarten up to secondary school level equivalent. On the other hand, the department where the healthcare staff were enrolled focuses on leadership and education at a postgraduate university level, with interprofessional groups of healthcare professionals. The key objectives of the leadership symposium were to develop synergies across the professional groups; develop a network of professionals across teaching and healthcare; highlight comparisons and contrasts in experiences of carrying out the projects and to extend the dialogue of change in the community.

Ethical considerations included the right of the graduates to decline the invite to take part in the study. Confidentiality of data which was not in the public domain was maintained by



grouping responses together and not identifying the individual names of participants. Data was collected via open ended guiding questions which participants were asked to respond to in writing. This allowed the participants to reflect on what aspects of their experiences were most important. The data allowed the researchers to obtain systematic comparisons to derive thematic concepts. In addition the participants were asked, following this data collection phase, to prepare 5 PowerPoint slides each, which highlighted the most important aspects of their experiences of leading projects in their organisations using the same four key questions. These focused on:

1. Key leadership challenges in undertaking the project.
2. Key leadership opportunities offered by undertaking the project.
3. Key lessons and learning for the wider professional community.
4. Considerations for 'leading change, as a professional'.

This meant that the participants themselves were involved in deciding on the key points, from their initial reflections, which they wanted to share in their presentations. For some of these professionals it was the first time they had an opportunity to present publicly, their thoughts about change to another professional group. Each presentation was facilitated by an academic staff member who invited questions and monitored the discussion. Feedback from the facilitators was documented in the form of reflections, by the authors, to further make sense of the data from the four key questions above. Reflections also included observations of the presenters who seemed nervous or confident.

## Results

The qualitative data was analyzed by both researchers so there was agreement on thematic concepts identified. The authors used double-loop learning and the work of Argyris (1977), Senge (1990) and Argyris and Schon (1978) to frame the level of learning of the findings. Up to this point the graduates on both programs had reached level 3 of learning and the symposium was an attempt to challenge them to progress to level 4, Table (1).

**Table (1) Influences at Different Levels of Learning**

	<b>Levels of Learning</b>	<b>Activities to progress learning</b>
1	Individual	Reflections Presentations to peers
2	Group	Action learning meetings Presentation to colleagues in the organization
3	Organizational	Sponsorship to carry our project Involving stakeholders outside of their own department, relationship building
4	Inter-organizational	Presentation at Leadership Symposium Dissemination at conferences

Whereas single loop learning focuses on identifying errors in the environment and correcting these errors, for Argyris (2002), double-loop learning occurs when errors are



rectified by changing the underlying values which guide practice, before changing the actions. He suggests that highly skilled professionals, having spent much of their lives acquiring qualifications and mastering their disciplines, are frequently quite good at single-loop learning. However, when single-loop strategies go wrong they can become defensive and their ability to learn from these errors can shut down (Argyris, 1977). Relating this to organizational learning means that relevant learning happens at multiple interacting levels i.e. individual, group, organization and inter-organization (Table 1). The findings are interpreted in the context of double-loop learning under three key themes: Resistance to change; Extended/restricted professional and Exchange of learning.

### **Resistance to Change**

By the nature of action-oriented projects there are many challenges in leading change. In response to the first question – what were the key leadership challenges in undertaking the project? - references to change and leadership are illustrated by similar-type quotes across healthcare and teaching professions. The experience of resistance is highlighted for example in the following quotes of the graduates:

Dealing with “difficult” members of staff who opposed changing the way things were done.

Teachers working in the same classroom together – some felt uncomfortable with this.

(Teachers)

Whereas Hardy and Lingard (2008) found resistance across school sites when there was a call for teachers to engage in collaborative learning, the latter quote suggests that this teacher found resistance while working within the same classroom.

From healthcare staff:

There was animosity directed at a personal level

Back-tracking by key stakeholders / Challenge to maintain momentum

(Doctor)

Both groups seem to reflect upon unspoken politics and defensive behaviour which they encountered during the process of implementing change. Again Argyris (1991) could interpret this as being related to the experience of professionals being successful most of the time, not experiencing failure. Thus, when single loop learning goes wrong they can become defensive and this could manifest in resistance. Being able to communicate these feelings can be linked to the facilitation of an environment where professional learning is supported and enabled (Bradshaw et al, 2005).

In addition to some negative challenges, there were positive responses to the challenges encountered across the professions. Both groups identified how, within the challenges experienced, the project allowed them to build positive relationships with staff, understanding better their environment, within their departments and across the wider community. Such learning has been supported through the decades by both professions (Fullan and Miles, 1992; Lies and Sutherland, 2001; Fullan, 2002; McAuliffe and Van Vaerenbergh, 2006) in recognising that change is systemic. The complexity of leading change is identified strongly by teachers and healthcare staff, in particular, stepping into different roles as required. The following quote from a teacher illustrates this very well:



A clear understanding that the leadership role is a complex one. As a leader I must be able to wear many hats: visionary, figurehead (represent the project publicly), champion, (communication of progress, needs, and benefits), liaison and monitor (embrace, develop, and maintain my liaison role), chief negotiator (especially important in the early stages of a project, scope, costs, and schedule), negotiator (help team members resolve difficulties), motivator (keep the project moving, making sure I acknowledge and reward good work), talent spotter (enlist support of key personnel), team leader and player (be a role model in how I execute my tasks). I must also handle the “people” issues that may arise in the course of the project. There are an endless number of social-psychological issues that confront project leaders, but motivation, discipline, and conflict management are three of the more usual ones.

As with all change, communication was the most important lesson learned across the professions. This was discussed at length in the presentations of the projects. Ghavifekr et al (2013) concurs that the success of the change depends on the acceptance by organizational members. This involves motivating staff and communicating views and ideas for effective change, as was verbalized in the presentations from both professional groups. In fact Haughey (2006) suggests that networks, communities and teams can help create new patterns of learning within schools.

Some of the above quotations refer to a strategic-change focus. According to Diefenbach (2007) the external environment is a powerful force and plays a major influencing factor in change management. In addition Bordum (2010) acknowledges the importance of hierarchies in the success of change so that change is resisted if the executive level only is targeted.

#### **Extended/Restricted Professional**

The responses to question two around ‘Key leadership opportunities offered by undertaking the project’ and question three around ‘Key lessons and learning for the wider professional community’ are captured under the theme of the ‘Extended/Restricted Professional’. In healthcare and teaching many years are spent learning to perform as a healthcare professional or teacher. These forms of preparation have been coined as *signature pedagogies* by Shulman (2005) and are types of teaching that form the basis for how future practitioners are educated. Three fundamental dimensions of these critical aspects of preparation are ‘to think, to perform and to act with integrity’ (Shulman, 2005: 52). Signature pedagogies form habits and influence the culture of the professional’s work. He believes it is important that each profession recognises these habits in providing context for how they plan and implement projects in their settings. The literature on the extended and restricted professional (Hoyle, 1974; Haughey et al 1996; Ohlen and Segesten, 1998) helped us make sense of some of the responses we received to the enquiries. According to Evans (2007) restricted professionals are those who might have a narrow vision, are accepting rather than critical of their own practice and this can result in resisting change and innovation. The extended professional, on the other hand, continuously strives to improve practice and is continually examining for inadequacies and weaknesses which may be reduced or removed. Based on Hoyle’s (1974) work on teaching and education, Evans (2007) suggests that the restricted and extended professional concept is based on a continuum rather than on a boundary of two extremes. At the symposium both sets of graduates presented characteristics of the extended or restricted professional.





These quotes could suggest a view of the 'extended professional':

Establishing a coalition of concerned parties with similar longterm goals and interests and developing a jointly shared vision of the change.  
(Healthcare staff)

Working closely with and harnessing the skills and abilities of colleagues with whom I would not have had the opportunity to work closely with in the past.  
Becoming published ... and working closely with ... on areas of literacy.  
(Teaching)

There is a suggestion of the importance of networking and of publishing in order to advance the careers of both groups. Marshall (2009) captures well the challenges, for doctors in particular, to demonstrate their competence and be accountable to society. She suggests that revalidation is one way to respond to these challenges. This encompasses personal development planning and demonstration of validation by peers. One way of achieving validation by peers is to publish papers in journals which are peer-reviewed. According to Marshall (2009) time spent by a clinician collecting evidence and devising ways of improving what they do, must be seen as a significant part of the work of a professional.

According to Hoyle (1974) the restricted professional's perspective is limited to the immediate in time and place so that workplace events can be perceived in isolation.

Writing from a medical perspective, Cruess et al (2000) suggest that a gulf developed between the medical profession and society because of a better informed community who now demand accountability and transparency. Perhaps the notion of the restricted professional is as a result of a cautious doctor or teacher, for example, who are now more under the spotlight than ever before with new societal expectations and demands. However, this is the very time when double-loop learning is needed. Both the teaching and healthcare professions deal with high risk situations on a day-to-day basis and are under constant pressure to keep up-to-date and competent in their areas of practice. Any change initiative could in fact increase the potential of risk if they do not get the initiative right. The following response could suggest a 'restricted professional' perspective if we agree with Hoyle in perceiving workplace events in isolation or Cruess in being cautionary:

Teachers need to be encouraged to start small and to review and evaluate work regularly. When establishing communities of practice, ensure that they share a common concern and capitalise on schools interest to work together, by developing teachers' skills of critiquing constructively each others' work.

(Teaching)

Yet, there is a sense in this quote that the teacher is collaborating and taking the bigger organization into consideration. For VanVeen et al (2001) this orientation towards the school as an organization fits with an extended role. For the healthcare staff member below there may have been a restriction in authority to carry out a project rather than a willingness to extend his/her role beyond a clinical remit:

First opportunity to devise and manage a change initiative from start to finish.  
(Healthcare staff)



Double-loop learning provides a framework for both professions in dealing with high risk situations as it allows for uncertain situations to evolve across professional boundaries dealing with the emergent nature of change. Another quote from a graduate, that 'saying it all out loud' at the symposium increased her learning of carrying out the project.

### **Exchange of Learning**

The symposium can be understood as a space which necessitated extended professional engagement, or as Vince (2004:73) might label as a 'structure that connects'. This space provided an opportunity for graduates to publicly reflect. Argyris (1991) believes that if learning is to persist, professionals must look inward, in addition to solving problems. Such public reflection, in turn, can provide opportunities to engage with the consequential mixed emotions following attempts at ongoing learning (Vince, 2004). While discussing the politics and emotions surrounding projects might be seen as too high risk, we argue that this is where real learning can occur.

The fourth question challenged the graduates to reflect on considerations for leading change as a professional. The idea behind this question was for them to express their overall learning of carrying out these projects and to link this learning with being a professional. The responses to this question were quite varied both in length and in orientation. The following examples are from teachers:

When leading change it is essential to exercise acute situational awareness in gauging the teachers' readiness to engage in the change process i.e. where they are in their career, personal considerations, levels of motivation, position in the organisation etc.

Sometimes we don't have to look too far for the answers. By facilitating a process of reflection and collaboration we can uncover deep insights and generate meaningful, sustainable change.

It is all about relationship building, being empathetic, able to view a situation from all sides, communicating honestly, keeping everyone updated, and inviting all to become involved, working with a critical mass and extending one's circle of influence.

These quotations vary from the need to read the situation clearly to facilitating a process of reflection and relationship building, involving learning across levels one to three (Table 1).

Responses overall were brief from the healthcare professionals and drew on ethics, trust, self-belief and transformational leadership as seen in the sample of quotes below:

Behaving in an ethical manner, developing mutual trust and respect with co-workers and being transparent, engaging all stakeholders

Transformational leadership can help align organisational members as it provides for inspiration, motivation, intellectual challenge and individualised consideration for the greater good.

Resilience, self-belief, self-questioning, support structures, down-time, optimism.





The benefits of professions sharing their experiences opens up a new chapter in working across boundaries as it is too easy to consider one's challenges unique to the specific profession. Tagliaventi and Mattarelli (2006) found that knowledge flows between professional groups but this is leveraged, in particular, by organizational proximity and shared values. Although their research was based around the healthcare professionals there is no reason why networks from one profession cannot link with other professions. Real world research involves people building relationships, managing upwards and getting buy-in at all levels. According to Bottery (2006) educators as professionals (both sets of graduates are actively involved in educating) need to engage in professional self-reflection if they are to make an impact on society at large. Bottery suggests that professionals should not be shy in sharing their knowledge and expertise but they also need to recognise others' understandings and expertise in order to make improvements. Sharing encounters across professions will extend the dialogue of change and develop networks which may not have yet been considered.

## **Conclusion**

This enquiry began with a conversation and casual meetings. It continues in that way as the authors start to evaluate the second symposium and generate further discussion with a wider group of academics. As action-oriented researchers and reflective practitioners 'we face a shared future' (Coughlan and Coghlan, 2012:184). While limitations of the small size of the sample are acknowledged there is some learning to be gained from this study. The symposium has acted as a springboard for the next cohort of students in planning their projects and encouraging them to think more deeply about the challenges and opportunities which lie ahead. This paper has given an account of a partnership initiative which has huge potential to cross education and healthcare in a way which has not been done previously. It has sown the seed for professionals at postgraduate level to explore further what other learning they can gain from each other if they cross the boundary of health and education. On reflection this should have always been an obvious fit, as healthcare professionals, by the nature of the current focus on preventative medicine, are educating the public about their health and how they can prevent many of the prevalent diseases such as cancer, diabetes and heart disease. According to Stronach et al (2002: 131) professionalism could be viewed in metaphorical terms as a 'pulse'. Each professional performance can be articulated around some version of that pulse. In other words practices from the inside-out (from the heart) need to be encouraged and rewarded (outside-in). To be healthy it needs exercise (action) and recognition. We support the argument of Stronach et al (2002: 132) that 'excellence can only be motivated, it cannot be coerced'.

Shulman (2004) gives examples of communities of learners whose focus is on an action-oriented project which they present publicly as their final capstone experience. He calls this the 'consequential task' (p. 489). Some of the principles used by Shulman (2004) are that the learner is an active agent in the process and learning becomes more active through inquiry, dialogue and questioning. There is collaboration among learners and this is nurtured within a community or culture that values such experiences and creates many opportunities for them. Equally Hargreaves and Shirley (2009) suggest that students are not merely targets of change. They are active partners with a leading voice in their own development.



Teachers and healthcare professionals play a vital role in educating the public. However, there is huge potential to broaden this initiative to other professions such as lawyers, engineers etc. What stops us developing synergies, for example, between engineers and doctors, lawyers and teachers, and so on? The authors view this experience as 'dipping our toes' into a territory which we believe has great potential. Others should consider exploring the crossing of boundaries outside of their own professions using a distinctive space for exchange of learning. All it takes is inspirational leadership.

### **Acknowledgements**

We thank all the graduates who took part in the leadership symposium.

### **References**

- Argyris C. (1977) Double Loop Learning in Organizations. *Harvard Business Review*, Sep-Oct: 115-125.
- Argyris C. (1991) Teaching smart people how to learn. *Harvard Business Review*, 4 (2): 4-18.
- Argyris, C. and Schon, D. (1978) *Organisational Learning: A Theory of Action Perspective*, Addison-Wesley, New York, NY.
- Argyris, C. (2002) Double-loop learning, teaching and research. *Academy of Management, Learning and Education*, 1(2): 206-219.
- Bradshaw, P., Powell, S. and Terrell, I. (2005) Developing engagement in Ultralab's online communities of enquiry. *Innovations in Education and Teaching International*, 42 (3): 205-215.
- Bordum A. (2010) The strategic balance in a change management perspective. *Society and Business Review*, 5 (3): 245-258.
- Bottery, M. (2006) Education and globalization: redefining the role of the educational professional. *Educational Review*, 58 (1): 95-113.
- Coughlan, P. and Coughlan, D. (2012) *Collaborative strategic improvement through network action learning: The path to sustainability*. Edward Elgar, Cheltenham.
- Cruess R., Cruess, S. and Johnson, S. (2000) Professionalism: an ideal to be sustained. *The Lancet*, 356:156-159.
- Diefenbach, T (2007) The managerialistic ideology of organization change management. *Journal of Organizational Change Management*, 20 (1): 126-144.
- Donaldson, G. (2006) *Cultivating leadership in schools: connecting people, purpose, and practice*. Teachers College Press, New York.
- Evans, L. (2007) Developing the European Educational Researcher: towards a profession of 'extended' professionalism. Paper presented at the European Conference on Educational Research, University of Ghent, 19-21 Sept (network 22: Research in Higher Education). <http://www.leeds.ac.uk/educol/documents/174160.pdf> Accessed 12/9/13).
- Fairman, J. and Mackenzie, S. (2012) Spheres of teacher leadership action for learning, *Professional Development in Education*, 38 (2): 229-246.



- Fullan, M. (2002) The change leader. *Educational Leadership*, 59(8): 16-20.
- Fullan, M and Miles, M. (1992) Getting Reform Right: What works and what doesn't. *Phi Delta Kappan*, 73: 745-752.
- Ghavifekr, S., Afshari, M., Siraj, S., & Zabidi Bin Abdul Razak, A. (2013) Vision- Driven Strategies and Policies for Managing Educational Systemic Change: A Qualitative Analysis. *Australian Journal of Basic and Applied Sciences*, 7(4): 333-341.
- Hardy I & Lingard B (2008) Teacher professional development as an effect of policy and practice: a Bourdieuan analysis. *Journal of Education Policy*, 23(1):63-80.
- Hargreaves A. and Shirley D. (2009) *The fourth way: the inspiring future for educational change*. Corwin Press, Thousand Oaks, CA.
- Haughey, M., Howard, P. and Marshall S. (1996) Technical expertise and teacher growth: results of teacher evaluation policy impact study. *Journal of Education Policy*, 11(2): 159-168.
- Haughey, M. (2006) The Impact of Computers on the Work of the Principal: Changing Discourses on Talk, Leadership and Professionalism. *School Leadership and Management*: formerly *School Organisation*, 26(1):23-36.
- Hoyle, E. (1974) Professionalism, Professionalism and Control in Teaching. *London Educational Review*, 3(2): 13-19.
- Jacobson, C. and Choi, S. (2008) Success Factors: Public Works and Public-Private Partnerships. *International Journal of Public Sector*, 21 (6): 637-667.
- Joyce P & Al Fahim M (2013) Action-oriented research for master's level dissertations: an opportunity to improve practice. *CCA Quality Series No 6. Commission for Academic Accreditation*, United Arab Emirates <https://www.caa.ae/caa/DesktopModules/QualitySeries.aspx> Accessed 6/4/14.
- Lles, V, and Sutherland, K. (2001) Organisational change: A review for health care managers and researchers. *National Coordinating Centre for NHS Service Delivery and Organisation R&D*, London.
- Lowndes, V, and Skelcher, C. (1998) The dynamics of multi-organizational partnerships: an analysis of changing modes of governance. *Public Administration*, 76: 313-333.
- McAuliffe, E. and Van Vaerenbergh, C. (2006) Guiding change in the Irish health system. *Health Service Executive*, Dublin.
- Marshall, M. (2009) Revalidation: a professional imperative. *British Journal of General Practice*, 59: 476-477.
- Muijs, D. and Harris, A. (2006) Teacher led school improvement: teacher leadership in the UK. *Teaching and teacher education*, 22 (8): 961–972.
- Ohlen, J and Segesten, K. (1998) The professional identity of the nurse: concept analysis and development. *Journal of Advanced Nursing*, 28(4): 720-727.
- Roberts, M. (2004) Producing Tomorrow's doctor. *Journal of Vocational Education and Training*, 56(4): 467-484.



- Revans R. (1998) *ABC of Action Learning*, Lemos & Crane, London.
- Senge, P. (1990) *The Fifth Discipline: The Art and Practice of the Learning Organisation*, Doubleday, New York, NY.
- Shulman, L. (2005) *Signature pedagogies in the professions*. *Dedalus*, 134(3): 52-59.
- Shulman L. (2004) *The wisdom of practice: essays on teaching, learning, and learning to teach*. Jossey-Bass, San Francisco.
- Smith, J. and Wohlstetter, P. (2006) Understanding the different faces of partnering: a typology of public-private partnerships. *School Leadership & Management: Formerly School Organisation*, 26(3): 249-268.
- Stark, S. (2006) Using action learning for professional development. *Educational Action Research* 14(1): 23-43.
- Stronach, I., Corbin, B., McNamara, O., Stark, S. and Warne, T. (2002) Towards an uncertain politics of professionalism: teacher and nurse identities in flux. *Journal of Education Policy*, 17(1): 109-138
- Tagliaventi, M. and Mattarelli, E. (2006) The role of networks of practice, value sharing, and operational proximity in knowledge flows between professional groups. *Human Relations*, 59(3): 291-319
- Tschannen-Moran, M. (2004) *Trust matters: leadership for successful schools*. Jossey-Bass, San Francisco.
- Van Veen, K., Slegers P., Bergen, T and Klaassen, C. (2001) Professional orientations of secondary school teachers towards their work. *Teaching and Teacher Education* 17: 175-194.
- Vince, R. (2004) Action learning and organizational learning: power, politics and emotion in organizations. *Action Learning: Research and Practice*, 1(1): 63-78.
- Yost, D., Vogel, R., and Liang L. (2009) Embedded teacher leadership: support for a site-based model of professional development. *International Journal of Leadership in Education*, 12 (4):409-433.
- Zenger, J. and Folkman, J. (2009) *The extraordinary leader: turning good managers into great leaders*. McGraw-Hill, New York.