Transformational leadership in changing a research culture

a personal reflection

Peter Hogg discusses the challenges and pitfalls of changing focus in a complex organisation.

- Models the way
- Inspires a shared vision
- Challenges the process
- Enables other to act
- Encourages the heart
- Honesty / professional integrity
- Inspiring
- Competent
- Envisions the future
- Enlists others
- Promotes effective communication
- Learns from experience; encourages others to do similar
- Creates a climate for learning
- Encourages experimentation and risk taking
- Resilient
- Creates a climate of trust
- Determined
- Fosters accountability
- Develops self confidence
- Coaches and supports others
- Has high expectations
- Praises people
- Says 'thank you'

Figure 1[2]: Examples of leadership characteristics (Kouses and Posner)

Figure 2[3]: The NHS Leadership Qualities Framework (http://www.nhsleadershipqualities.nhs.uk/assets/x/50128)

Introduction

Towards the end of 2010, I went to a parent's evening at my son's school. Whilst there a sonographer friend came up to me and said jokingly, 'have you retired?' She did not need to clarify what she said, because I knew what she meant. I then explained why in recent times, I have been less prominent within the radiographic literature.

In short, together with other staff in my directorate, I have been engaged with extensive 'behind the scenes' activities working towards something new and innovative. The longer explanation commences in this article, which is the first in a series of three.

With the emphasis on transformational leadership, in this article I shall explain the culture change that has occurred within my university and the Radiography Directorate, how that transformation was facilitated and why in the longer term I believe the change should have positive effects.

First I should like to take you back to 2004, because that year represented a typical illustration of what characterised research in the University of Salford's Radiography Directorate.

The context

In mid 2004 we had a steady flow of conference and journal papers and several staff were studying doctoral awards in support of their research careers. There was a modicum of joint team working for research and some MSc dissertation student work related to that activity. We also had three full time PhD students.

On reflection, the conference and journal material we produced was of good quality, but had an eclectic nature and it was driven by personal interests; fairly typical of university radiography departments at the time, both nationally and internationally. Importantly at that time, the individually-focused work did not present a problem because our university valued what we did and the radiographic community seemed to appreciate it too.

March 2009 however, brought significant change. Diversity in our research was no longer to be encouraged and the notion of isolated researchers was to become a thing of the past. We were to work towards interdependent team based research and in April 2009 I was asked to lead the establishment of the new diagnostic imaging research unit which would have a clear clinical imaging focus.

2009 brought the University of Salford a new Vice Chancellor (VC); shortly after this a new senior leadership team was appointed, a vision for our university was agreed and implementation commenced. The basic plan was to become more research led within our curricula and also 'up our research game'.

One driver for the latter is related to improving our research output for future national research assessment exercises[1]. The leadership for the school in which radiography sat decided that its research focus would be clinical; this appeared to us to be a logical decision because within our school[a] we had a prominent and highly successful clinical rehabilitation research unit.

([a] Disciplines included within this school include: physiotherapy, radiography, sport, podiatry, prosthetics and orthotics and occupational therapy)

A consequence of this was that in March 2009 radiography was faced with a choice – 'do clinical research related to imaging or don't do research at all'. If it were to be the latter decision, those who were research active (clinically) would be encouraged to join other research teams within the school. In reality that would have meant that only two or three out of 17 academic staff would have been encouraged to do research.

I felt, and still do feel that my school showed good leadership in this decision. Why? Firstly because it demonstrated that it **had a vision** – 'its radiography department would do imaging related research'. Secondly because by **sharing its vision** it **empowered** radiography to define its own direction – the specific details of the imaging research would be left to the radiography staff. This gave us a fantastic opportunity to **shape our own future**; this is well-documented in leadership literature as an important catalyst in making people feel valued and empowered.

This approach also has many positive personal and organisational benefits. There were caveats though; our research could only have breast cancer (specifically mammography) and also SPECT-CT as the foci; we must achieve 'great things' – unspecified at the time – by 2017; there would be no lone researchers; and our research must be multi-professional and collaborative. Collaborative meant there was a need to include people from outside the University of Salford into our research teams.

Breast and SPECT-CT appeared to have been selected by our school because there was limited but existing, clinical research into these areas and the philosophy of it was in line with school requirements. It might be worth noting that our educational research did not fit with the new agenda and much of this had to be phased out. For the latter, that which we continued to do is now termed scholarly activity. However, without that external stimulus I firmly believe that we would not have easily reached consensus for our research foci. And even after being given these it took almost a year for us to clarify our specific research lines of enquiry within our agreed areas.

A premeditated approach to change

In previous management posts and in previous non-management leadership positions, I have been a firm believer in and advocate of, the use of transformational leadership principles. I also acknowledge that many radiography directorate colleagues are from a similar mould. In particular I value the transformational leadership characteristics set out by Kouzes and Posner[2] (Figure 1) and in the NHS Leadership Qualities Framework[3] (Figure 2); several of these leadership traits described are highlighted **in bold** within this article.

Transformational leadership is a set of principles and behaviours which enable transformation to occur through others. I knew this would be important because there would be a need to influence professionals across my university and also within clinical and other external settings too.

At the end of the working day during the early stages, I often reflected upon events of the day, and using leadership literature I tried to see different ways of moving forwards before returning to work on the following day. Here are some examples of situations I met and the leadership solutions I used to help resolve them.

Resistance to change was anticipated and it was not surprising when it arrived. Several reasons accounted for it but the most prominent was related to the two research areas not aligning to individual interests, expertise or individual perceptions of what should be done. Over a prolonged period, using a highly democratic process, staff were enabled to **shape their own future**. I needed staff buy-in and commitment, as without this we would go nowhere.

Initially, a big concern for several staff members surrounded the research paradigm; a majority of them had trained to be qualitative researchers and they felt this dimension should exist within our research vision. Voices were heard, and curiously, research paradigms were not specified as part of the 'external mandate' so inclusion of qualitative research was easily accommodated into our vision.

By May 2009 the Directorate had a shared view on our

proposed research, albeit some staff members were still not fully sold on the idea.

Acknowledging that people manage transitions at different speeds, since then with other directorate staff, I have worked to encourage and support those not fully sold on the vision to a point where we almost have complete alignment.

During this period I spent a lot of time listening to peoples views and concerns in 1:1 face to face conversations. I found this form of interaction to be valuable as it allowed me a chance to get to the nub of individual concerns. You might be interested to know that from the onset within the directorate, we encouraged people to show their feelings, but we had a condition on this matter.

We agreed, as a directorate, that it would be acceptable to talk openly amongst ourselves, but it would not be acceptable to air any negative feelings outside our own department – we had to demonstrate an external united front.

The period of listening to staff concerns and helping people to let go of the old and welcome the new was a good investment of my time and other directorate staff too, because I feel quite certain it helped others cope with the change process and helped me to understand concerns that hadn't occurred to me. During the initial period of change I tried to keep at the forefront of dialogue that we had a great opportunity – we could shape our own future. Not all university departments had that opportunity. Even so, almost two years on, there is a minority who are not fully sold on the idea but who 'go along with it'; realistically I don't think 100% full commitment is ever likely given the nature of human beings, but consensus must be.

Surprisingly, the easiest group of people to sell the vision to was the postgraduate students. MSc dissertation students of mammography and nuclear medicine appeared to welcome the foci and many readily aligned their dissertation proposals. Similar to our other MSc dissertation students (radiographic reporting and GI) they still have the opportunity to focus their research into any area they chose – so students are no worse off than previously.

At our first directorate meeting to open the discussion, I was **honest**; indeed on reflection I must have sounded like the harbinger of doom. I explained we would get things wrong repeatedly, but that would be acceptable so long as we **learn from our mistakes** and improve. I gave clear areas in which I thought we might struggle, notably applying for large external grants and submitting work to high impact journals and conferences.

However, I made it clear that we should believe in our individual and collective abilities and when we fail or have setbacks we should get up immediately and carry on. **Self belief** and belief in the project is critical to success.

There have been times when mine and that of others, have faltered. Personally, failure to make adequate progress generally and difficulties encountered specifically on research related matters challenged my strength. Central to our success was reaffirming belief in us and our endeavour, and I feel that I and others have placed a lot of energy into supporting the team in this context.

This relates nicely with the leadership behaviour defined by Kouzes and Posner of **modelling the way**[2]. Knowing that some staff – including me – have had to change research fields, it became essential to help them to adapt and succeed. This would mean identifying and removing – proactive and reactive – obstacles, or helping them to do this for themselves. Obviously there is a balance between **enabling others to act** and knowing when to act oneself in a particular situation.

In some instances this judgement can only be made in the midst of the problem. Planning out the facilitation and empowerment of others was also important, collectively helping individuals gain national or even international profile has been a bonus, for without assistance it could have taken one person many years to attain positions that have national or international positions of influence in our research areas.

In practical local terms we implemented two forums to help novice and more experienced researchers. These occurred four times yearly for each forum and they have been highly valued; indeed I am told they have been highly motivational too. Empowering others has additional dimensions too, for instance together with others, I hope I have provided a fertile environment within which staff, students and others can grow their research in a productive and encouraging atmosphere.

Political astuteness and strategic influencing has been a critical component of what we did and I suspect for the first time my title as professor has opened doors. Using my title has been related to us needing 'an introduction' and 'getting buy-in' for research partnerships in areas in which we had not previously been known.

Within the University of Salford itself, to the highest level (VC), I have repeatedly engaged those in leadership and managerial positions about what we are doing. Basically I want the right people to work with us at the right time and in the right way. I want my university to continue investing in our research so that we can reach a position of sustainability. I know this utopia will not be reached overnight, so I have to find ways to remind people of our committed endeavour and the progress we are making towards our corporate ambition.

To be fair, my university is fully supportive of further building its diagnostic imaging research and this is true at all leadership and management levels. Actually, given the prevailing economic situation, I am really impressed that they continue to support our endeavour.

The final leadership characteristic I wish to mention is **holding others to account**. This has never sat comfortably with me because I believe I am from the carrot and not the stick user mould. At the onset in 2009 I acknowledged that a point would arrive when individually and collectively we would be held to account. 2017 was the obvious end point by which we must have achieved the conditions set by the university, but along the way there would be targets that would need meeting too and these would be reviewed annually. Whilst I have not considered failure as an option I do realise that if we don't succeed then it would mean the end of radiography related research within my university.

Actually this statement is true for any research conducted within any university; indeed it is becoming more of an issue for all universities. Within our research areas we knew our research performance would need to be reviewed and recently we have entered into this phase. This involves pruning out lines of enquiry that do not appear to be making adequate headway. With this, comes further alignment of direction and an ever more honed research focus. In many respects this is sensible – 'back the winners'.

A reflection

At the time of writing this article it is 22 months since we started to change our culture and research focus. My impression is that individually and collectively we have moved a considerable distance to attaining our ambition. I am told by many that the experience of changing the culture has been positive and presently, because of better alignment of research topics, we are finding that one innovation/discovery can assist another staff member working on a related topic. This sort of phenomenon is quite interesting because we are also finding that success by one is more easily shared and valued by others.

We still have a distance to travel and our journey has not been without cost. For instance, it is nearly impossible to stop what you are doing immediately. To a greater or lesser extent many of us had commitments, real or perceived, and they needed concluding before we could fully commit.

For instance, one colleague had a real commitment – he had external grant money to conduct dyslexia research and that needed concluding. I also had real and perceived commitments and I now view perceived commitments as highly important to the individual, but not necessarily in-line with the new corporate vision. It took me a short while to say no to people who were asking me to become involved in things I used to do.

As part of my own journey I have had to commit to withdrawing from things that were no longer important to the new research focus; having done this, my time and energy could then be channelled into where it needed to go. Importantly I have found that trying to hold onto the past has limited me, both intellectually – wasting emotional energy— and practically – wasting time. For perceived and real commitments, planning for and committing to an exit strategy is important.

I have a feeling that to be successful you must be able to let go of the past by acknowledging the need for change and to believe in where you are going. If not then you are likely to waste energy, emotion and time looking over your shoulder and trying to do things that are important to you, and not that important to the cooperate vision.

Not surprisingly this is illustrated in the literature, Figure 3[4] demonstrates a coping cycle comprising of five stages. This is not unlike a bereavement cycle, and indeed does involve some degree of grieving in its early stages.

My initial feelings illustrate well the phases of denial and defence - why should I change, don't 'they' appreciate what I do? My way forwards was initially by accepting that change had to occur, planning to move on and then implementing that plan successfully.

I believe I am now in the adapt/internalisation phases. Having said this I did have positive feelings from the onset. Several years ago when I was Head of Directorate I had a vision of us being world leaders in research. In my time as Head however, I failed to organise our research in order to have a cohesive team based and focused approach. I have acknowledged for quite some time that an external stimulus would likely be the catalyst required for that to be achieved.

The current position is that we have implemented research related changes into our undergraduate BSc programme and further research related innovation is planned. In relation to staff, postgraduate and funded research activity we now have two well defined research areas. One area concerns itself with mammography and that has two teams associated with it; the first is about Emotional Intelligence[5,6]; the second is about compression force in mammography[7]. The second well-defined area has one team focused on low resolution CT in the context of SPECT-CT[8-13].

We also have two emerging areas – 'the patient experience'

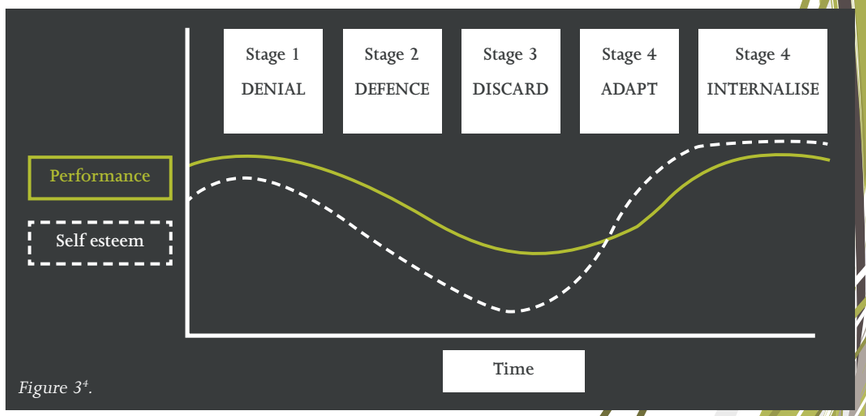

Figure 3[4].

and 'trauma imaging'. Presently a high proportion of our MSc dissertation student dissertations are now focused to an aspect of our research, indeed I firmly believe the foci have attracted some students to study their dissertations with us.

After the two MPhil/PhD students have completed their study with us – February 2011 – our remaining five will have their focus in our new research areas. To a greater or lesser extent all our academic staff now have an involvement, with seven having a research time allocation varying between 20% to 50%.

We also have 12 honorary clinical research appointments within our research teams, and a growing number of clinicians are becoming centrally involved in our research work. Within our university we have an interdisciplinary dimension to our research too; this includes physics, psychology and occupational therapy. We have attracted a modicum of external and internal funding and this has supported studentships, international physics staff exchange to conduct research and also funding for a two year research related appointment.

It is worthwhile recognising that the development of the research did not take place in a void; the directorate has a number of core functions which had to adapt to accommodate the new research agenda. For this to occur various directorate staff had to take on the responsibility of leading change.

A good example of this relates to the BSc Radiography programme. A complicating factor for the teaching related activities came from additional internal and external pressures relating to quality enhancement and 'other significant matters'; these too required additional human resources. The net effect of research and teaching requirements resulted in conflicts in human resource demands and strong leadership, particularly by the BSc programme leader, was required to propose solutions and then implement change.

Of prime importance was the student experience and at all costs, that had to be preserved. Changes implemented associated with the BSc programme included: planning meetings in advance; amalgamating meetings; streamlining the personal tutoring process; standardising documentation; moving from double marking to moderation; and creating small cluster groups of staff who would work on short term goals in similar areas – ensuring there is no overlap of effort.

One successful change, introduced to improve the quality of student placement experience, has actually brought about a serendipitous integration of both teaching and learning. This has involved leaders from both teaching and learning and research working closely together.

Alongside this, for the BSc programme, the clinical learning manager recognised the importance of the change and therefore included research as an item on the clinical tutor agenda. This enabled that section of our clinical colleagues to gain an insight into our new research agenda.

Over the past 22 months I have needed to totally immerse myself in the new areas in order to get things going and it has been a truly life consuming commitment. During the transition process, because of methodological design and testing, and data collection I have had to be a little quieter within the radiography public eye.

Presently we are sitting on the verge of submitting our new work to journals and conferences. Initially I predict that the volume might be less than previously, but hopefully the quality should be better. I also anticipate our publication frequency will rise over the next few years.

In the next two articles I shall outline the research we are now engaged with and importantly why we chose our specific lines of enquiry.

What would I do differently next time?

Faced with similar circumstances in the future what would I do differently next time? Only one thing - try to progress the change process at a faster rate. I suspect this reflects the kind of person I am (eager).

About the Author

Peter Hogg is a Professor of Radiography at the University of Salford.

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Acknowledgement

I should like to acknowledge all staff within the Directorate of Radiography because of their commitment to the diagnostic imaging research.

References for this article can be found under 'Synergy resources' at *www.sor.org/members/pubarchive/synergy.htm*

To comment on this article, please write to *ianh@synergymagazine.co.uk*

How to use this article for CPD

Accreditation by cpd now the College of Radiographers

You may find this article interesting purely from the research perspective. Do you think it is good that university research in radiography should have a clinical focus only?

What about research into education and learning, are these not also the core business of university medical imaging and radiotherapy departments? What is your perspective on this?

The article can also be considered from the point of view of directing and managing change. Clinical leads and service managers may wish to approach it from this angle.

Do the processes described have any implications for change management in your department?

Are there lessons to be drawn or tactics to be tried?

If you are a practitioner without a designated leadership or management role are there any implications for you?

Do you have any aspect of your practice that you would wish to change, or cultural changes you would like to bring about in your department?

How might you approach these and whose support would you need?

Sean Kelly, CPD Officer

Fujifilm launches its first portable diagnostic ultrasound system into the UK

Fujifilm has expanded its range of products in the UK with the introduction of its first ultrasound system. Fazone CB is a portable, lightweight ultrasound system offering high image quality on a large 12" screen, making it ideal for hospital wards and outpatient departments, as well as examination rooms or vehicles. It is ergonomically designed to provide user-friendly operation, with easy-to-use large buttons, which are cleverly grouped according to examination mode.

The system is equipped with a 'sound speed correction' function for faster, clearer examinations, based on Zone Sonography technology, which transmits a broader ultrasound beam to collect extensive echo data immediately by using large zones. This makes a new, advanced image processing environment possible.

Inselspital in Bern begins radiotherapy treatments using Varian's TrueBeam system

A leading Swiss cancer clinic has begun delivering advanced radiotherapy treatments using the TrueBeam system from Varian Medical Systems. More than 40 patients have been treated using the new system for fast, precise radiotherapy and radiosurgery since clinical treatments began at Inselspital, the university hospital of Bern.

"Treatments with TrueBeam are very quick and delivered with great precision," said Professor Daniel Aebersold, director of radiation oncology, "and studies have shown that increased dose delivery rates can potentially lead to higher cure rates, although this will need to be further validated through longer-term clinical trials. At first we are using TrueBeam mainly for patients with large tumours, such as you often find with cervical cancer, anal cancer and advanced head and neck cancer."

Inselspital has become the fifth hospital in Europe to commence clinical treatments using TrueBeam.

Triple Olympic medallist opens Philips Brilliance CT big bore scanner

The triple gold and silver Olympic medallist, Ben Ainslie, recently opened the new Philips Brilliance CT Big Bore Oncology and Pinnacle³ Smart Enterprise treatment planning facilities at the Sunrise Centre, Royal Cornwall Hospital, a dedicated regional oncology centre.

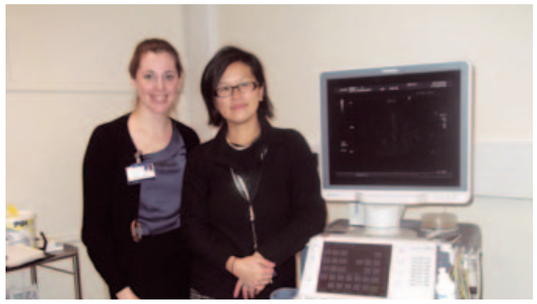
Amy Walker, pre-treatment superintendent, said: "The Philips equipment met our needs as a department that wants to keep advancing in the services we can offer our patients requiring radiotherapy. It offers more detailed scans and greater flexibility in scanning patients in a variety of positions required for radiotherapy planning. We now also have the use of IV contrast and 4D respiratory gating where appropriate, and the Big Bore also allows us to scan larger patients."

Standing in front of the scanner is Peter Colclough, chief executive of Royal Cornwall Hospital, with (standing, from left): Gary Bailey, account manager, imaging, Philips; Amy Walker, pre-treatment superintendent; Derek Tarrant, CT business oncology manager, Philips; Rob Davies, general manager, central & west district, Philips; Mike Hayden, sales director, imaging systems, Philips; Lorraine Cowley, physicist; Dr Toby Talbot, clinical oncologist; and Dr Duncan Wheatley, clinical oncologist. Seated (from left): Philippa Robins, radiotherapy manager; Ben Ainslie; Sharon Tatlow, senior radiographer; and Robin Laney, director of medical physics.

Toshiba ultrasound scanner makes it way to St Michael's Hospital Bristol

The fetal cardiology department at St Michael's Hospital Bristol recently purchased a Toshiba Aplio XG ultrasound scanner. The University Hospitals Bristol NHS Trust provides tertiary level cardiac screening and diagnostic services to the obstetric ultrasound departments within the south west region. Although primarily purchased for fetal cardiology, the comprehensive cardio package on the system also allows it to be used for adult patients within the hospital.

Dr Bev Tsai-Goodman said: "The Aplio XG allows us to produce precision images with clarity and high resolution. The fetal cardiac programme facilitates optimisation of the images acquired with simplicity and precision. The very nature of fetal echocardiography demands a user-friendly and ergonomic platform and the Aplio XG provides this with ease. The addition of this equipment has allowed our service to both grow and continue to provide a high level of care across the region, which we hope will long continue."



Sophie Bale, specialist cardiac sonographer (left), with Dr Bev Tsai-Goodman, consultant paediatric cardiologist.