

Special Report: The Soft Skills Challenge For The Science-Based Professional:

Why Traditional Soft Skills Training and Development Programs So Often Fail to Make a Difference

The Need for Soft Skills in the Scientific Community:

The importance of science and technology to our way of life is generally taken for granted, however in a world where it has been said that the general population is nearly scientifically illiterate, the various roles that science based professionals are called on to fulfill are increasingly significant. In our complex global society our scientific and technical communities are facing new challenges, whether it be moving beyond the bench into leadership roles within an organization, starting up their own company to take their technology to the market, or providing credible information to non-scientists for government policy making decisions, to name just a few examples. Yet their scientific training has done little to adequately prepare them for dealing with others and achieving results with and through people, especially those not like them.

The Challenge:

The solution most often used in the past was to send the science professionals to courses to learn how to become better communicators and leaders. But traditional communication and leadership development programs, heavily weighted to '*learning* how to communicate and lead', have too often failed to produce the level of communication and leadership behaviour needed for success in to-day's society. In a large part this is because the hurdles that scientists and technical specialists must overcome to become better communicators and leaders have been under-estimated, and therefore under-addressed.

At the heart of the matter is the fact that they must change their behaviour if they want to see the results that they desire - and this is one of the most difficult things to do, especially when the majority of their training has been counter-productive to improving leadership and communication skills.

The Hurdles:

There are five key areas that need to be considered and addressed to improve communication and leadership within the science-based communities. They are:

- 1) Their Natural Tendencies;
- 2) Their Training;
- 3) Academia and Workplace Culture;
- 4) The Brain's Natural Hard-wiring, and
- 5) The Disconnect Between the Trainers and the Science-Based Professional

1) Their Natural Tendencies:

People who enter the science and technology fields tend to:

- * be highly task oriented and analytical in nature;
- * have a strong belief in the superiority of logic;
- * be objective and rely on hard data,
- * think they need more data when in doubt, or maybe they don't have the right data
- * get caught in 'analysis paralysis'
- * be deeply committed to their work
- * become so focussed on their work that they loose contact with the people around them
- * become frustrated by what they see as the illogical actions of others, and
- * often see people as obstacles

One scientist, on moving into an Executive Director's position, remarked that they loved the job - if only they just didn't have to deal with people!

Traditional leadership development programs, rooted in providing facts and information in a typical classroom setting where scientists 'learn' new skills, are easy for them - they 'get' the information. However moving it into action isn't necessarily on their radar screen. The lack of action around new information is not uncommon and Pfeffer and Sutton (2000) have referred to it as the "knowing-doing gap", a not uncommon situation in knowledge based industries that limits performance even when the knowledge is present. Without a strategy and support to move knowledge into action back in the workplace, it is unlikely that behaviour will change and therefore few beneficial results will occur.

2) Their Training

Not only does the traditional scientific training not adequately prepare science based professionals for dealing with others, it often results in widening the chasm between them and the rest of the population.

Academic training in the sciences has a tendency to:

- * promote the superiority of the logical approach
- * discount feelings and emotions, since science deals with 'facts'
- * place high reliance on case studies and theory based learning, the essence of education being talk and writing, not action
- * gauge success by mastery of the facts, not taking action
- * promote the superiority of whatever disciplines one is in
- * create the impression of the superiority of science based disciplines over non-science ones
- * promote the development of 'independent' thinkers
- * create an atmosphere of competition, not co-operation

One scientists recently told me that even when they are working on a collaborative project,

they are not really collaborating - they are always looking for the advantage, that 'something' that will give them an edge over their colleagues.

Once a science trained professional moves into a leadership role, or has to deal with people not like him, all his training works against the very actions that he now must take to succeed in achieving results with and through others.

3) Academia and Workplace Culture

When people enter the sciences, whether in an educational or workplace setting, they discover a culture that:

- * supports traditional pay, promotion and recognition systems based on individual excellence
- * sees science as serious business - with little time for idle chit-chat or relationship building
- * places high value on technological fixes, discounting non-analytical approaches to problem solving
- * places a high value on mental activity, reaching conclusions and making presentations (of a very technical nature of course)
- * too often sees peer reviews as an opportunity to raise ones own profile rather than provide constructive feedback
- * looks for individual excellence, where working on a 'team' is avoided as a potentially career limiting move.

The atmosphere created is definitely not conducive to the development of a people centric leadership approach. It is also not conducive to helping them understand the role feelings and emotions play in the workplace, not just in achieving better business results and attracting and retaining top talent, but also in things such as higher morale, motivation and commitment. Goleman (2002) has said that the best leaders are set apart from the rest by their ability to understand the powerful role played by emotions in these areas.

4) The Brain's Natural Hard-Wiring

Research has shown that our brain functions pretty much the same way it did a thousand years ago, with much of what we do the result of unconscious decisions our brain is hard-wired to make to reduce the pressure that comes from constant change and adaptation. Cooper (2006) explains that this inherent reaction to such pressure is a deeply embedded survival mechanism "designed" to have us "do whatever is necessary to avoid stress, minimize pain, eliminate surprises, fend off uncertainty, and resist change."

This ancient survival response shows up as:

- * a strong resistance to change - anything that will move one out of their comfort zone is seen as a threat by our brain
- * a continuing reliance on years of training in analytical skills as the basis of a science professional's automatic response
- * discounting of new information that does not support previous learning
- * a search for evidence to support the existing way of doing things and current

beliefs

* a tendency is to operate on automatic pilot, relying on what worked in the past.

So often it matters little how 'good' a particular leadership development program is, since the majority of them are based learning facts and concepts - not in how to make changes and take action. And as one frustrated technical expert lamented to me - "I've taken all the leadership courses available but it hasn't made any difference - people still won't do what I want!". In fact, while he had excelled in the courses, he had not changed his behaviour - so he continued to get what he'd always gotten - low morale, little participation and increasing losses from wastage.

5) The Disconnect Between the Trainers and the Science-Based Professional

Most often the people brought in to present communication and leadership courses have excellent "people skills". They are very good communicators and are 'hard-wired' so that they seem to be able to read people's minds.

However, the downside is that because they are so very good at it, they don't understand why others, such as scientists and engineers, don't get it when they tell them to do something. They think that because people understand the theory they are presenting, it will translate into an improved ability to deal with people. Sadly, too often it doesn't, so another trainer is brought in and more of the same happens.

The Solution:

Many scientists and technical experts want to become better communicators and leaders, however most programs lack the support needed to translate these skills into appropriate behaviours in the workplace, the support that is crucial if they are to move their knowledge into action. And while by nature excellent observers, they do not observe their own actions and reflect on the impact they have on others. This is where a program that combines learning new skills with coaching support from someone with strong communication and leadership skills and experience, cognizant of the issues and challenges the scientific community faces, can have a major impact.

Experience has shown that with the coaching support that enables them to step back and observe and reflect on what is actually happening, versus what they want to happen, they quickly identify what behaviours need to be changed and what they need to do to get the results they want. While not every science professional will want to move beyond the bench the exponential growth of information limits what any one person can achieve on their own - to be successful, they must develop the ability to work interdependently with others. Additionally, to be more effective in taking their expertise to a wider audience requires an improvement in communication and leadership capability. Without ongoing coaching support, much of the money spent on programs to develop these areas will continue to fall short of achieving the hoped for results.

There is an opportunity here to help our scientific community take their performance to new heights by providing them with programs that not only help them learn new leadership and communication skills, but also helps them put the new knowledge into action, building the new habits they need to bring people together and create the combined synergy that produces results that go beyond the merely additive. In doing so we can ensure that the

people with the science and technology expertise needed are not sub-optimized because of their natural leanings, their training, their workplace culture and their hard-wired brain reactions.

Background References:

Pfeffer, Jeffrey, Robert I. Sutton. 2000. *The Knowing-Doing Gap. How Smart Companies Turn Knowledge into Action.* Boston: Harvard Business School Press

Goleman, Daniel, Richard Boyatzis, Annie McKee. 2002. *Primal Leadership: Realizing the Power of Emotional Intelligence.* Boston: Harvard Business School Press.

Cooper, Robert K. 2006. *Get Out of Your Own Way: The 5 Keys to Surpassing Everyone's Expectations.* New York: Crown Business.