

## Human motivation - the real key to success in Six Sigma

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*PMI was founded in 1984 and consults and trains clients in systemic and systematic business improvement and Six Sigma all over the world. We are partners with the Institute of Quality Assurance in provision of Six Sigma training and services. We have a unique approach to improvement, encompassing all aspects of change including strategy, system based improvement and most importantly people processes. This approach is augmented by a robust methodology of unparalleled pedigree.*

*Jan Gillett and Jane Seddon have presented at many conferences ranging from the British Deming Association in the early 90s to the International Congress for Quality in 2002 and Tokyo in 2005, as well as at the 2nd and 3rd ANQ in Delhi and Taipei.*

Help people to value themselves, then they help the system add more value for its customers.

### Summary

This paper presents the case for change programmes to develop feelings of higher self esteem amongst all those expected to play a part in the programme; in developing strategies, implementing projects or managing processes. Building on examples from their practise, the authors demonstrate what it takes to develop the self motivation of leaders by helping them to understand their system, the processes within it, and the issues of leading improvement in real time.

### **Effective leaders value themselves as individuals and see value in others**

It is well established that success in business improvement and Six Sigma demands leadership - what does that entail?

We see two key components:

1. Leadership in action to integrate many factors of direction, resources, methods etc for those in the teams, to ensure the successful delivery of improvement projects, standardisation and continual improvement of ongoing processes;
2. Transformation of leadership style and behaviour that underpins the action, from the top as well as at the local level; senior managers cannot expect collaboration, openness, respect and creativity if they don't do so themselves.

At any level people add most value for an organisation when they feel able to be creative, inventive, persistent and managed risk takers. These are natural, human qualities, evident in children, but suppressed by many educational institutions as they grow, as exams become the focus. In most organisations too, appreciation of natural human creativity does not happen spontaneously; in fact most people will probably not have felt listened to, suggestions will have died for lack of interest, and it is probably been safer not to make changes unless forced to.

In the absence of any new signals therefore, local leadership of improvement may only come from a brave few. It should be top management's role to make sure that the improvement programme is focussed on developing

appreciation of local leaders so that the few become many. This demands a counter-intuitive new approach to programme design and management, creating change processes that develop standardised approaches, whilst encouraging people to make decisions they personally think worthwhile within the principles and disciplines. This builds their self esteem, and launches a new and creative atmosphere.

Here is an example from a Local Authority seeking to improve its efficiency and reputation.

*“We deal with many benefits claimants who are vulnerable and stressed. We decided to put our names and direct phone numbers at the end of the letters when we write to them. In this way they know who to contact, and don’t have to waste time going through the telephone menus. They find it are easier to talk to us and it takes less time. It’s more personal: we gain and they gain”*

Sue, Benefits Officer, April 2006

Sue and her colleagues are encouraged to take this kind of initiative – a far cry from the bureaucratic image normally expected of a Local Authority. They, like countless others, will put their creative energies to work when they see others do the same.

## **A change programme must be structured, and provide encouragement to experiment**

It is often said that a change programme must provide structure, predictability, control, and lead to tangible benefits. However it must avoid the rigid control from the top that often limits the ambition for change and freedom of choice for individuals. Many opportunities will appear in unexpected places and need to be pursued without waiting for permission. Top management must therefore learn to reconcile their need for predictability with the benefits of releasing the potential of individual leadership within projects and processes, learning to accept the initial uncertainty that can result.

There is an apparent paradox here. Adherence to controls - to bureaucracy - will tend to stifle innovation. Insisting on adherence to the **principles** of systemic improvement will encourage individual creativity and collective implementation.

*“When environments are standardised, innovation and creativity are able to thrive”*

Shoji Shiba, 2002 winner of the Deming Prize.  
Quality World, May 2006

Toyota is a global example of a very structured environment that continually generates innovation from the operations on the shop floor all the way through to the finished product.

If one understands the lessons of the application of the scientific method in laboratory experiments the paradox is resolved. The only way to agree on what is new, or is important, is to accept standardised processes for description, measurement, significance and so on. Without such rules one cannot know if one has discovered something new. Likewise in organisational processes and improvement itself. Until a single best way has been applied, whether for operations, measurement or improvement, no-one can know what progress is. It is up to senior leadership to ensure the establishment and operation of standard processes, and to maximise the contributions of all in being creative about discovering opportunities for improving them, and adopting them in a standard way.

A company created a series of standard processes to understand and speed up their research and development:

*“We recently cancelled three new product programmes half-way through the timescale when we demonstrated that they were not going to generate the returns we need. We have never done that before as nobody could agree on the criteria for cancellation. Now we are putting our resources into a whole new product stream”*

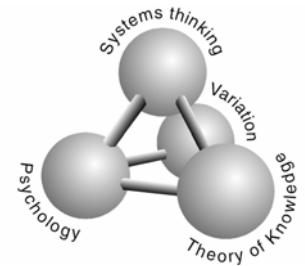
Development Manager, February 2006

Six Sigma and improvement programmes need to create this right kind of structure across the board. It demands systemic transformation.

## Principles for systemic transformation

Dr Deming proposed his System of Profound Knowledge in 1987, the culmination of his lifetime of practise across the world. We at PMI have spent nearly 20 years working with the model, making it the foundation for our practise.

It has four parts, all essential for anyone to develop their leadership of improvement on, or within, the system. It is not necessary to be expert in any one part, but it is important to understand them all, and their interactions, in the search to optimise. your whole business system



## Systems thinking.

*A system is a network of interdependent components that work together to accomplish the aim of the system.*

W Edwards Deming, *The New Economics*, MIT Press 1993

This definition can be used with natural systems or man-made ones. It has many implications for leaders in organisations, enabling them to consider if their system fulfills living system principles (appreciation of interrelationships, enabling self-organisation wherever possible, encouraging diversity within the standard operations). Leaders should ensure that all work satisfies customer needs with the least consumption of resources and energy: standardising activities, connections, pathways and problem-solving.

People should be accountable for adhering to system principles and rules, but beware of making individuals accountable for results. If the results are not good enough the system must be systematically changed, not tampered with. When people are given targets they will work hard to hit them, regardless of the consequences on the rest of the system.

Thanks to Tom Johnson for new insights into natural systems.

*(H. THOMAS JOHNSON, Professor of Business Administration  
Portland State University in Portland, Oregon, 97207.)* private presentation, May 2006

Individual leaders should therefore look at the organisation systemically; from the broadest concept to the most specific implementation, and in how they think and act about projects and change. Processes, as well as functions or geography, should be the basis for understanding and improvement. We are all customers and suppliers and can act better when we think and lead with these roles in mind.

People like this approach. They are used to being categorised by department, seeing organisation structures that do not represent their work, obscuring their relationships to each other and the external customers and suppliers. When we have worked to create a system or process map we hear comments such as “Now I can see what my job is”.

An example from a large company IT Network Service management team illustrates the potential;

*“Following PMI’s guidance we created system maps of each of the parts of the global network service support operations. Now we can see our internal customer and supplier relationships, and have a common language based upon the external customers’ needs. We save time and can rely on the decisions to be better aligned to the common purpose”*

IT Network Services Director, 2006

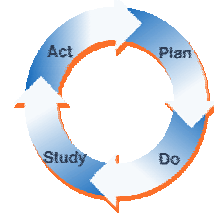
## Understand theories of variation.

Use systematic methods to represent variation and reduce it, to get the output of your processes “on target with minimum variation”, not just conforming to requirements. Whilst many now use the tools of SPC in manufacturing, the theory offers much deeper potential than mere control, and can apply to all processes and for every leader.

All of you who have used control charts to understand and reduce variation will know how good - how natural - they feel. Dr Don Wheeler calls them “honest people’s tools” and indeed that applies to the other methods in the Quality toolset. As you learn them it feels right. They are for insight rather than manipulation. You would like to use them in other applications, so you do. That is local leadership, you can take on, regardless of the boss, building your own self esteem through the satisfaction of applied learning.

## Apply theories of knowledge.

Learn by using the scientific method, expressed as the Plan Do Study Act cycle. Starting with Study, take care first to understand the current situation, then develop theories and test them by experiment. The same thinking should be applied to everyday processes, not just within improvement activities.



Another aspect of knowledge is to use the disciplines of Operational Definition, so that people use words in the same way to mean the same thing.

We find that people like these ideas too. They have a logic that works, and can be applied in all aspects of one’s life, not just at work. This is not to say that they are easy or quick to follow, as it takes time to do the foundation work in Study, or to generate more accurate description. And since they often lead to an awareness of what is wrong in the organisation, that may be hard to handle. But in our experience people often ask for more knowledge about PDSA, so they can understand better. We do not have to force it.

## Recognise psychology of change and motivation.

Integrate people and teams into all of the applications, recognise the influence of motivations, reward systems, feelings and politics in how change is thought about and implemented.

When people arrive on Six Sigma training courses they are often worried, and often with reason. They expect to be instructed in technical tools and left to get on within application on their own. They wonder how they will find applications. This is not surprising if you read the Six Sigma literature, which has long lists of tools and methods. In addition, they may have heard of intensive training programmes that were not supported on-the-job.

There are many other aspects of human thought and behaviour that good application of principles will help, mechanistic direction of tools will make worse.

To be effective, the programme must integrate the vital aspects of psychology with process mapping and data, integrating all four parts of the System of Profound Knowledge to start a life-long devotion to learning and improvement.

## PMI’s system for developing a programme

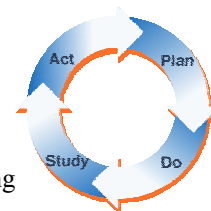
We have developed this model to help client management to develop an improvement strategy that is credible in the eyes of the participants. With this model, senior leaders can advocate and learn without having to direct in detail, whilst local leaders can see the big picture whilst they implement the changes.



1. Senior management learns how to see their organisation as a system, building alignment on its purpose and priorities for change. A small, controllable, initial phase is developed.
2. We create a system of planning and review, to control the resources and ensure that the top management gets good feedback as the work progresses.
3. They identify the very best people to lead the initial projects, and also those who will be managing the processes that are likely to be affected after the project team has moved on.
4. Training is provided for senior managers, project sponsors, project team leaders and members, process managers and operators, always delivered in the context of the organisation’s current circumstance.
5. Key projects are led by trained people, sponsored by educated senior managers, interacting with process managers who are developing their own expertise.

6. The work is reviewed in the light of the original aims, the objectives of the project work, and the impact upon those around the activities. This provides the basis for the next phases. They too will be developed with their leaders, endlessly adapting to the environment at that time.

Throughout the planning, training, implementation and review, all aspects of the System of Profound Knowledge are used to provide reference points. This ensures a consistency between different levels of leadership, and across geography function and language.



We have applied the model at global and local scales, over many years, integrating the concepts of strategic leadership with the practicalities of supporting key improvement projects and training internal expertise in process management and improvement techniques.

## **Conclusion**

Change programmes dedicated to establish understanding and principles of systemic thinking and application work. Those who take part in such a programme often find their lives are transformed. When they are clear about the overall objectives, of the intention to improve the organisation on the customers' behalf, they see it as the right thing to do. As they experience the project and process work, and realise the power of the methodologies for them to make a better contribution, their enthusiasm grows and grows. They feel good.

Jan Gillett, Jane Seddon.

*PMI has helped clients in all sectors across many countries develop knowledge and capability to improve their organisations and make their work more satisfying. Some of our clients include Rolls-Royce plc, Land Rover, BMW, International Paint, Airbus UK, GlaxoSmithKline, Sanofi Aventis.*

*Our philosophy is based on our belief in the capacity of people to learn and subsequently transform their workplace when they are given the stimulation to change their thinking and the methods to do things in a better way. This philosophy has underpinned innumerable business benefits and given many thousands of people a different way to view the world and improve it.*

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