

Creating Employee ‘Pull’ for Improvement: Rapid, Mass Engagement for Sustained Lean

Frank Devine¹, John Bicheno²

¹ Accelerated Improvement, Coventry, UK, ² University of Buckingham, UK
acceleratedimp@aol.com; john.bicheno@buckingham.ac.uk

Abstract. The paper describes an approach to engagement called Rapid Mass Engagement (RME) that has been used at a quarter of Shingo Prize winning sites in Europe between 2010 to 2017. The approach has been developed over the past 20 years with an ongoing process of experimentation. Particular features include the involvement of ALL employees, a series of diagnostic and problem-solving not merely consultative meetings, and the development of an employee-created organizational culture, locally developed by employees and codified in their own words. This ‘bottom-up’ dominated approach is in contrast with many top-down approaches, but helps to facilitate lean by enhancing leader standard work, policy deployment and continuous improvement.

Keywords: Employee, Engagement, Improvement, Human resources

1. Introduction

Gallup’s 2017 report ‘State of the Global Workforce’ stated that ‘85% of employees worldwide are not engaged or are actively disengaged in their job’, but ‘in the best managed companies’ as many as 70% of employees are engaged. Moreover, Gallup found that ‘Business or work units that score in the top quartile of their organization in employee engagement have nearly double the odds of success (based on a composite of financial, customer, retention, safety, quality, shrinkage and absenteeism metrics) when compared with those in the bottom quartile’. In a recent article from ‘The Insider’ (HBR, 17 May 2019), Buckingham and Goodall report, after a huge US survey, that ‘engagement averages a paltry 16%’, but doubles when ‘what really engages is their experience on a team’ and further improves when the team is in a trusting environment.

Clearly, then, high engagement should be an important aim for any Lean-aspiring organisation.

This paper aims to

- Outline a new and promising approach to engagement in Lean Transformation called Rapid Mass Engagement (or RME) that has achieved success in productivity gains and in assisting a number of organisations to win Shingo Prizes - gold, silver, or bronze. From 2010-17, 25% of all Shingo awards in Europe went to organisations deploying the approach outlined in this paper. The implementation is an ongoing experiment involving collaboration between an organisation, a consultant and, in some cases, a university.
- Contrast RME with other approaches to engagement in Lean
- Focus on one particular stage of RME whereby an entire workforce creates its own culture of continuous improvement. This culture is codified in a set of behavioral standards.
- Alert practitioners to the risks of when the process has not achieved its objectives.

2. Literature survey: Lean and Engagement

Academic interest in employee engagement and work engagement has risen sharply over the past 20 years. The engagement literature is huge and growing exponentially (Google scholar 2015; Truss et al, 2014, and Albrecht et al 2015). The significant impact of engagement on employee performance has also been researched (for example, Anitha, 2014). Many are written from a Human Resource perspective and appear to orient towards engagement being an HR or top-down concern. (Garrard and Chamorro-Premuzic 2016). It would appear that many academic papers in the area are concerned with definition, with measurement, and with conceptual frameworks.

Differences in the definition of work engagement and employee engagement remain undecided. The most often used definition of work engagement in the scientific literature is ‘. . . a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption’. (Schaufeli, 2018)

The importance of culture and engagement is now also prominent in Lean transformation. (Liker and Hoseus 2008; Liker and Meier 2007; Richardson and Richardson 2018; Bortolotti, et al. 2015; Hopp 2018). Engagement is often cited as being an important consideration in, for example, 5S, Hoshin Kanri, suggestion schemes, problem solving, and team development. Of course, ‘Respect for People’ is one of the two pillars of the Toyota ‘House of Lean’ as is ‘Capability Development’ in the Lean Enterprise Institute model.

Here we briefly mention just three of several routes to engagement. The Shingo Prize (2018) includes 10 principles of which two (‘respect every individual’ and ‘lead with humility’ are strongly aligned with engagement and three (‘embrace scientific thinking’, ‘think systemically’, ‘create constancy of purpose’) are indirectly aligned. In the ‘Toyota Way Fieldbook’ (Liker and Meier, 2006, pp. 226-231) the responsibilities of team members, team leaders, and group leaders are detailed. This makes clear that engagement is not simply an edict from neither the top, nor a stand-alone bottom-up activity but requires active and ongoing involvement through all levels. TWI (Training Within Industry) is a set of concepts – Job Instruction, Job Methods, Job Relations – known as the ‘three legged stool’ (Graupp and Wrona, 2016), that had a major influence on early development of the Toyota Production System and is still used today, in modified form, for ‘developing competent and able people’ (Liker and Hoseus, 2008). Here we note the similarity of TWI Job Relations to engagement – ‘the foundation for good relations’ particularly ‘people must be treated as individuals’. More recently, TWI has increasingly been linked with ‘Kata’ (Rother and Aulinger, 2017) – to judge by several ‘TWI Kata’ conferences in Europe and USA in 2018 and 2019.

3. Rapid Mass Engagement: development and approach

Rapid Mass Engagement (RME) has been in development since 1990. The 6-stage culture change process outlined below is the result of the 23-year cycle of PDSA-type experimentation via hypothesis-based application and improvement that continues to this day. The methodology tests hypotheses in real work situations with large numbers of employees over long periods across multiple organisations with repeated feedback loops and improvements. Examples include hypotheses that recognition must be timely and that recognition can be enhanced by attention to body language. These hypotheses were tested separately to avoid contagion and predicted that these approaches to recognition would increase employee survey results concerning recognition. In both cases, applied across large sample sizes (to increase statistical reliability) and for a longer time period (to avoid measurement failing to capture slow moving improvements) the hypotheses did not produce the predicted results and, in the case of body language, produced worse results than the control groups! In contrast, many organisations have measured significant increases in their recognition scores after the application of RME’s approach to recognition. Examples include Rolls Royce, Coca-Cola, Johnson & Johnson, Bacardi-Martini and GKN.

Many Lean transformations have in the past failed due to insufficient attention to the ‘people’ aspects. (Emiliani, 2005). Today, to judge by the huge volume of articles – a small fraction of which have been mentioned above – the need for engagement is well established, perhaps even over-emphasized. However, in such conventional Lean transformation, even though employees ‘have a say’ or are involved or consulted, the power to make the final decisions remains with management alone (Devine 2016a). RME takes a different route, with the fundamental belief that true engagement must begin with employees themselves, reflecting their own beliefs and removing obstacles that prevent full participation. To do otherwise is merely ‘pseudo engagement’.

Throughout the RME process employees are involved in adult-to-adult conversations and make decisions not merely react to management decisions. Employees never ‘ask management’ or ‘make representations’; they make many operational decisions themselves and actively prioritise. As a result, employees are not the passive recipients of ‘engagement’ - rather they act on their system of work in such a way that they become actively engaged.

In this sense, management doesn't engage employees; management *creates a process whereby employees become engaged* and then work to sustain the new system thus created. (Devine, 2016a, 2016b). RME is therefore a radical alternative to the traditional top down approach to engagement and enablement. In this approach:

- All the employees on a local site who constitute an interdependent system make decisions and are not merely 'involved' or 'consulted'.
- Employees create their Behavioural Standards in the language chosen by them, not in managerial or academic language.
- Employees agree, by consensus, not negotiation or compromise, with the local senior management team, a jointly-owned and prioritized change plan to overcome obstacles to achieving the site's Higher Purpose
- RME aims to undermine any legacies of negative and limiting assumptions and aims to create rapid momentum and sustainability from the bottom up.

By involving all employees the process ensures the *width* of ownership necessary for a new culture to withstand the kind of early challenges that can undermine it before it grows strong enough to sustain itself. *Depth* of ownership is achieved by the more intense experience of *collective, joint decision making* (known as Consensus Day). Both width and depth are sustained and leveraged by continuous improvement outputs and from joint decision-making.

The overall process of RME is illustrated in Figure 1 below.

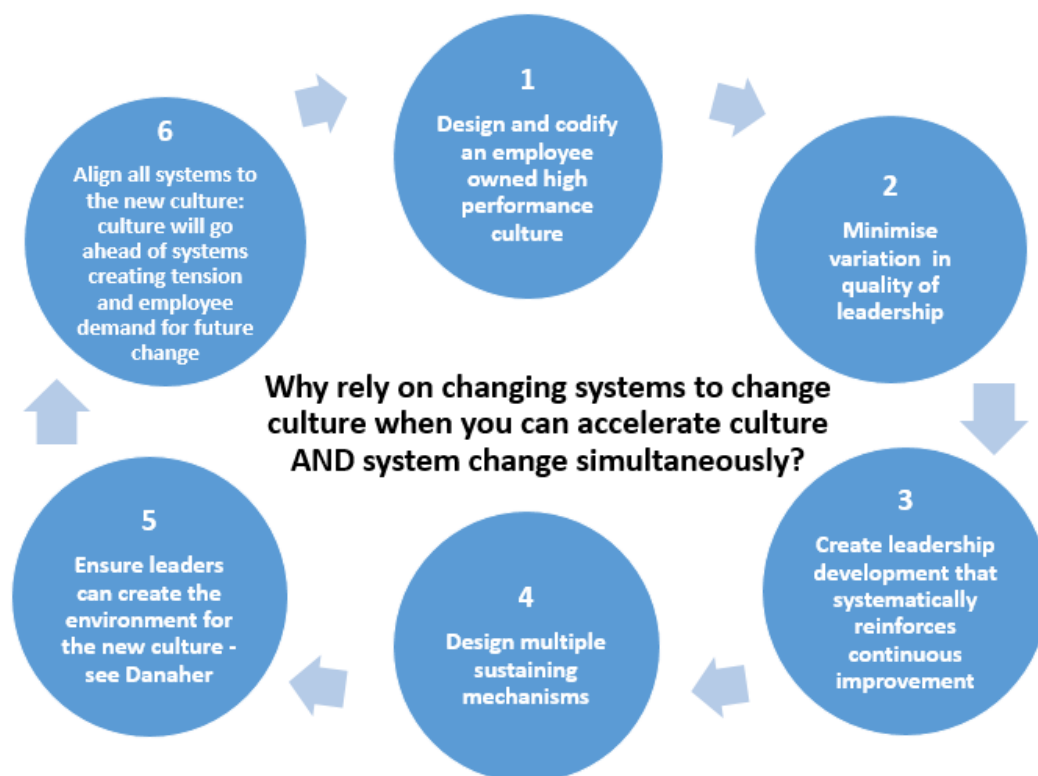


Figure 1: Process Overview (Devine 2016a)

The phases are as follows:

1. The process starts with *employees* rapidly creating a new and competitive culture. A Joint Decision-Making event called Consensus Day agrees, by consensus not negotiation, with the senior leadership, a change plan to both enable (by removing obstacles to the organisation's Higher Purpose) and engages employees via the creation of a new, employee-owned continuous improvement culture. The leadership approach is called the Cathedral or Higher Purpose Model. A core driver is that work is not just about earning wages but also can be harnessed to create jobs and sustain

communities. When employees see the *genuine* focus on changing their experience at work, skepticism reduces and engagement deepens and widens. The engagement is deepened by the intensive nature of the process - e.g. ‘Consensus Day’ at Boston Scientific and Seagate both involved 60-90 employees making joint decisions with their Senior Team about key business issues by consensus over 24 hours of contact time. The mass nature of the process widens engagement as all employees create their own culture.

2. To enable and sustain an initially fragile new culture, standards of leadership *outputs* have to be consistent and high. This makes it difficult for opponents of the new culture to point to examples of individual managers who are not both operating at a high-performance level and *modeling and referencing* the new culture in their day-to-day activities.
3. The new fragile culture needs to be sustained by process change as well as behavioural change and this combination is designed to be mutually reinforcing in nature. The leadership approach thus leverages improvement science.
4. To sustain the new culture, multiple sustaining mechanisms are designed and implemented to avoid natural degradation over time and to *make the new culture independent from the energy and commitment of the original leadership group*. As an example the specific role of the internal facilitator group includes acting as a permanent ‘conscience’ of the new culture and helps ensure all new policies and procedures are measured against it.
5. Creating an environment where the new culture is reinforced every day. As an example, Boston Scientific have a standard internal workshop called ‘Creating the Environment’ whereby the front-line leader and the team are taken through a process of agreeing how to make the new culture a reality not just words on the wall. This includes ensuring that leaders can be challenged without consequence.
6. Once the new culture is created it will expose systems that are inconsistent with it thus creating the tension and pull to improve and align these systems.

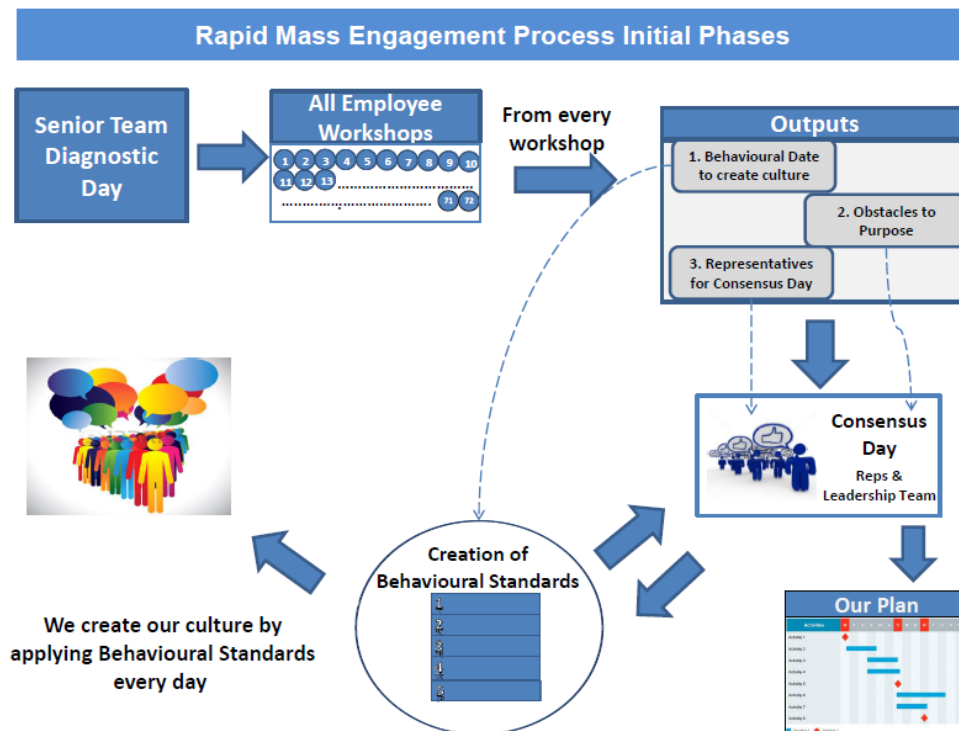


Figure 2: Early Stages of RME

Throughout the process, including the leadership development and continuous improvement aspects, existing systems and procedures are examined to identify potential conflicts and barriers - both social and technical. This is a specific design feature and aligns with ‘Socio-Technical’ design and ‘Quality of Work Life’ (Trist 1981). The ‘socio’ aspects include issues such as the effect of changes on

employees' social standing and self-image and which are sometimes missed even when employees are involved in substantial technical changes.

In this process, all employees diagnose the key obstacles to achieving the organisations' Higher Purpose and agree the nature of the new culture needed to overcome such obstacles. The early stages of RME are illustrated in Figure 2.

4. Five Points of Comparison with Conventional Approaches to Engagement

1. RME creates engagement and pull for Lean from the bottom up not top-down. There is a similarity with lean policy deployment in as far as values are interpreted 'top down', but an important difference in that Behavioural Standards are employee-created and 'bottom up'.
2. The Behavioural Standards methodology (see below) of codifying the employee-created culture is more behaviourally specific and locally meaningful than top-down corporate values and thus increases accountability.
3. The improvement methodology is direct, measuring results in real time in real work situations with permanently repeating feedback loops and improvement opportunities. This is designed to overcome limitations that often frustrate managers and HR staff. An example is having to rely solely on indirect forms of measurement such as surveys and corporate KPIs that have to be interpreted and thus suffer from lack of follow-up opportunities. (Shah and Ward, 2007)
4. Behavioural Standards are directly aligned with the lean concept of 'leader standard work' in as they specifically encourage and systematise the 'gemba' dialog that should be present. (Mann, 2010)
5. Continuous improvement is facilitated by the process of decentralization and rapid, mass engagement and by encouraging Deming's famous point 'Drive out fear' to take hold, as described at length by Liker and Hoseus (2008), Liker and Meier (2007) and by the Richardsons (2019).

5. Behavioral Standards as Local Differentiation

Behavioural Standards are designed as differentiators, i.e. locally decided cultures agreed by the employees in a particular location and owned by those employees. They *supplement, but don't replace*, the integration effects of well-designed and communicated Corporate Values. They are a deliberate form of differentiation, creating an approach that respects the local culture and language of employees whilst nevertheless being compatible with stated corporate values, 'mission statements' or 'credos'. (Quinn, 2018).

At Boston Scientific, Ireland a team of 20 volunteers worked for 3 days with Devine distilling 1400 behaviours into a small, agreed set. A series of 3-hour workshop for groups of up to 34 employees at a time was conducted covering all 3000 employees at the site.

To quote a senior manager from Boston Scientific 'Ideal results need ideal behaviours, which are driven by system design and people beliefs, both of which are informed by principles' (Shields, 2019)

In another example, 1,200 Seagate employees agreed a recent set of RME Behavioural Standards in February 2019, as shown in figure 3.

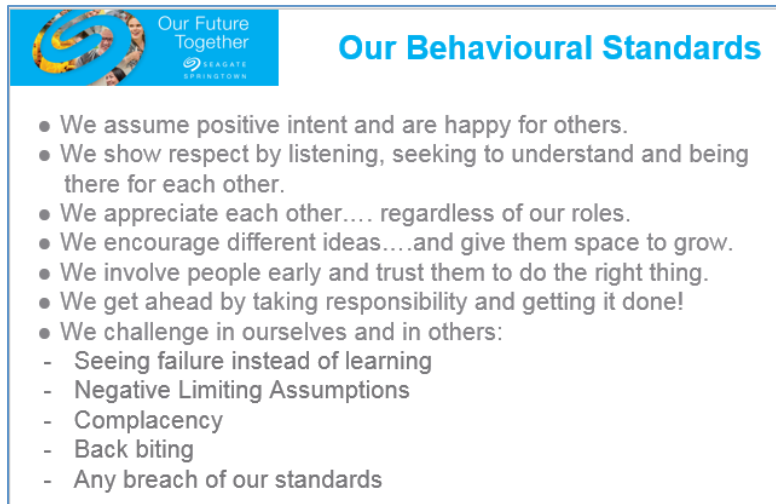


Figure 3: Seagate Behavioural Standards

6. Risks and examples of when the process has not achieved its objectives

Such a high impact process cannot be risk-free. Sub-optimisation is predicted in the following circumstances.

1. Lack of complete ownership of the process by **all** members of the senior team.
2. The promotion of a senior leader at an early stage of the process before the culture is strong enough to sustain itself.
3. Lack of support from corporate leaders.
4. Any gaps re the experience in the process itself and the quality of the facilitator, and the related issue of underestimating the depth of knowledge needed to understand the process well enough to produce a powerful Consensus Day and change plan.
5. Not being willing to match the ambition of the business objectives with the ambition of the engagement process necessary to achieve it
6. Not taking the time necessary to understand the process and do due diligence re the independent facilitator/consultant
7. Not ensuring that leaders are trained specifically to reinforce and sustain such a High Performance, non-hierarchical culture.
8. Not integrating the engagement process with the approach to continuous improvement.

7. Typical Results

- Boston more than doubled its output on the same footprint within 5 years
- Rolls Royce increased output to such an extent that a new Test Bed facility (£30-50m) was not needed and the employees concerned moved from bottom, with frequent IR issues, to top in the corporate engagement survey.
- At Coca Cola, Investors in People found that RME produced ‘the greatest transformation in employee attitudes ever measured’ across IIP’s extensive database.

Tangible results were studied in two MSc Dissertations of the implementation at DePuy. In summary, they found

- A 73% increase in productivity
- A 45% reduction in absenteeism
- A 300% increase in ideas implemented per person
- A 30% increase in engagement scores and a 34% increase in Q-12 engagement scores

(Whyte, 2011; Twomey, 2011)

The successful implementation of the RME in both Shingo (DePuy) and non-Shingo (Boston Scientific) sites indicates that the application of the Shingo Principles rather than pursuit of the Shingo Prize per se, was important. The Shingo Principles thus acted as an intellectual underpinning of both the need to engage with employees in a deep and meaningful way and to have a systematic approach to leadership development designed to do so (Devine 2016c).

An external endorsement is: “The best example we have seen of an organisation that truly embraces the cultural aspects of the Toyota Way to deliver sustainable results” (Kevin Robinson Assistant General Manager Toyota Manufacturing UK, 2010)

8. Conclusions and Experiences

During the experimental process of developing RME, learning included:

The process should be Rapid. For Engagement to be meaningful, *it has to change the working experience of employees*, and the speed with which action is taken is extremely meaningful to employees, partly because of the powerful contrast to their normal experience. Speed also signals powerful leadership intent and seriousness.

The process should involve everyone *in the system to be optimised*. It should involve the ‘culture’ being self developed, and hence owned, from bottom-up rather than being imposed ‘top down’.

‘Mass’ means engaging all employees not a sub-set of them.

Making changes via a pilot process to test the process carries risks of ‘Not invented here’ attitudes leading to a rejection of the ‘foreign body’ by those not involved.

Experience over 23 years and at over 20 sites indicates that RME is a promising approach to improvement, particularly at a time when employees are increasingly better educated (20% of Seagate engineers have PhDs), more demanding, less passive, and less willing to accept top-down ‘command and control’.

9. References:

Bortolotti, T., Boscarri, S. & Danese, P. (2015). Successful lean implementation: Organizational culture and soft lean practices. *International Journal of Production Economics*, 160, 182-201

<http://dx.doi.org/10.1016/j.ijpe.2014.10.013>

Devine, F., (2016a) When employees create their own High Performance Culture: The Rapid, Mass Engagement Process, *Lean Management Journal*, September

Devine, F., (2016b) The Rapid, Mass Engagement Process – Part Two, *Lean Management Journal*, November

Devine, F (2016c) Demystifying Leadership-Setting Leaders Up for Success. *Lean Management Journal*.

Emiliani, M.L and Stec, D.J., 2005. Leaders Lost in Transformation. *Leadership & Organization Development Journal* Vol. 26 No. 5, 370-387 DOI: 10.1108/01437730510607862

- Garvey, P (2015) Engaging an Organisation in Operational Excellence: A Case Study in Mass Engagement. MSc Dissertation, University of Buckingham
- Garrad, L. and Chamorro-Premuzic, T. (2016). The Dark Side of High Employee Engagement. HBS. (accessed.....)
- Graupp, P. and Wrona, R. (2016). The TWI Workbook (Second Edition). New York: CRC Press
- Hopp, W. (2018) Positive lean: merging the science of efficiency with the psychology of work, International Journal of Production Research, 56:1-2, 398-413, DOI: 10.1080/00207543.2017.1387301
- Liker, J.K., and Meier. (2007). Toyota Talent. New York: McGraw Hill
- Liker, J.K, and Hoseus, M. (2008). Toyota Culture. New York: McGraw Hill.
- Mann, D. (2010). Creating a Lean Culture. New York: CRC Press
- Quinn, R. E and Thakor, A., (2018), 'Creating a Purpose Driven Organisation, Harvard Business Review, July-August, pp78-85.
- Richardson, T. and Richardson, E. (2019.) The Toyota Engagement Equation. McGraw Hill
- Rother, M. and Aulinger, G. 2018. Toyota Culture. McGraw Hill.
- Shah, R. and Ward, P. (2007) Defining and Developing measures of Lean Production. Journal of Operations Management 25, 785–805
- Shields, C. (2019) Boston Scientific Galway Culture Journey. Presentation made at Enterprise Ireland Conference, Croke Park, May 2019.
- Shingo Institute. (2019). The Shingo Model. <https://shingo.org/model>. Accessed June 2019
- Shuck, M. B., (2011) Four Emerging Perspectives of Employee Engagement: An Integrative Literature Review. Human Resource Development Review 10(3) 304–328
- Shuck, M.B., Rocco, T.S., Alborno, C.A., (2010) Exploring employee engagement from the employee perspective: implications for HRD. Journal of European Industrial Training, Vol. 35 No. 4
- Schaufeli, 2018. Work engagement in Europe, .Org Dynamics, 47, 99-106
- Trist, E. 1981. The evolution of socio-technical systems: a conceptual framework and an action research program, in Van de Ven, A. Perspectives on Organizational Design and Behaviour. Wiley, 1981. Accessed July 2019
- Twomey, W (2011) Beneath the Waterline - A Study of the Effect of Applying Leader Standard Work to the Social Aspects of a Manufacturing System on the Performance of the System. MSc Dissertation Lean Enterprise Research Centre, Cardiff University
- Whyte, P (2011) *Exploring the Use of Systems Thinking to Understand and Plan Change*. MSc Dissertation Lean Enterprise Research Centre, Cardiff University