

Development of a new Balanced Evaluation Framework for Service Improvement.

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The drive to improve services and products and to achieve “improvement” in organisations that deliver them is relentless and permeates all walks of life. Since the mid 1990s, both in the United States of America (USA) and the United Kingdom (UK) there has been increasing interest in service improvement within the healthcare sector. Following its introduction, the iterative components of improvement theory (Deming, 1994) have been adapted for use in healthcare. Early improvement frameworks were developed from manufacturing, for example, European Foundation Quality Management (EFQM, 1999) and Process Redesign (Hammer and Champney, 1993), which focused upon mechanistic processes more suited to industrial settings. The adaptation of such frameworks excluded the humanistic aspect of change, therefore, lacked evaluation. This highlights the deficiency of “fit-for-purpose” evaluation frameworks that may not fully recognise the human elements of improvement. This research addresses these deficiencies through the inclusion of a more human relations oriented core component to the practice of service evaluation. The study involved expert participants as well as practitioner clinicians who were involved in change projects. The findings have been used to develop a balanced evaluation framework which has applicability to a wide range of health and social care settings.

Introduction

This study was initiated in recognition of the needs of health institutions in being able to understand more clearly how new change initiatives may be evaluated in terms of efficiency, impact and sustainability. The research started with an exploration of the

literature surrounding service improvement, in order to adapt and implement existing tools and techniques. The review highlighted that most of the literature focuses on the adaptation and implementation of service improvement initiatives, while limited information is available on the evaluation stage of the process. As a consequence, much of the published literature questions the sustainability and impact of service improvement at intra-organizational level (Rogers 1995; Pireddi 2000), which has, undoubtedly, led to scepticism among healthcare professionals. Intra organisational improvement is improvement within organisations and inter-organisational change is aimed at interventions used to raise performance across different organisations and themed groups (Conner and Scott 2005).

Growing expertise in this area led to the development of a theoretical model, which is one where the initiation, implementation and evaluation (Prochaska and Velicer, 1997) of service improvement initiatives, go hand in hand and are inextricably linked. It has been recognised, however, that evaluation of improvement initiatives, at a local level, was, at best, *ad hoc* and, at worst, non-existent. This is understandable, given that evaluation is often complex, but to overlook its importance can leave many of us asking the question, *has it made a difference?* This led to the focus of this research, namely: The development of an intra-organizational evaluation framework that can be used to establish the effectiveness of a service improvement initiative.

In essence, the outcome of this study is a Balanced Evaluation Framework (BEF), available to individuals and teams involved in initiating improvement, to aid them in achieving their goals. In this way, resources are allocated in the most effective way and each individual project is tailored to achieve its desired outcomes. Developing strategies that work effectively within an organisation is a crucial and complementary stream of work, which is necessary if transformation of healthcare in the United Kingdom (UK) is to take place (Modernisation Agency, 2002).

Overview of literature

The literature review yielded few resources, most of which are dated and concentrate on specific areas, such as public participation methods (Robert and Bate 2003), rather than evaluating the whole process of implementing an improvement initiative. This implies that the 'Evaluation', or 'Measurement of Service Improvement Initiatives' in healthcare is not yet present and mainstreamed. The resources are scattered and subjective to needs. In summary, this critical review of the literature has shaped and influenced the development of the project. This research attempted to develop a 'BEF' that may be used by various healthcare services. The research revealed that the NHS had been attempting to put efforts into Measuring Performance Improvement, however, the information relating to it remains incomplete and difficult to assess. The literature review also identified the difficulties and complexities in the particular measurement of healthcare. It is not as easy as measuring improvement in a business organisation, where data can be easily presented, provided and recorded. Healthcare deals with situations and activities that may be difficult to record, as they pass the subjective minds therefore these situations are individually acquired and developed feature with idiosyncrasies unique to the human experience. These idiosyncrasies develop from differing personal constructs, which are developed through experiences. Benner (1984: 3) explains experience as '*... results when preconceived notions and expectations are challenged, refined, or disconfirmed by the actual situation*'. Each individual will have differing experiences, therefore, each person will have a unique view of each experience, leading to idiosyncrasies. It is through these experiences that expertise develops; Benner (1984) describes this in relation to the expert nurse:

... who perceives the situation as a whole, uses past concrete situations as paradigms, and moves to the accurate region of the problem without wasteful consideration of a large number of options. In contrast, the proficient nurse in a novel situation must rely on conscious, deliberate, and analytic problem solving.... not all knowledge embedded in expertise can be captured in theoretical propositions, or with analytic strategies that go into the decision. However, the intentions, expectations, meanings of expert practice can be described.

(Benner 1984: 4)

In summary, healthcare involves several factors that are difficult to quantify, but measuring improvement, nonetheless, must be performed as supported by this review. Inevitably, the measurement of performance improvement, or service improvement initiatives, leads to quality healthcare, as well as the focus and realization of goals, unlike business organizations, which will have a set of measurements, beforehand, of a more objective nature.

Methodology

Action research methodology was selected for the purpose of this research. Action research is ideally suited to dynamic service improvement as it recognises the complexity of human and social interactions that result in change (Phelps and Hase 2002). Action research involves a process of enquiry, intervention and evaluation, which is most appropriate when improved practices and problem-solving are core concerns. It has been applied in organisation and community groups (Gbrich 1999), which, as a comparator, is a similar environment to that of a large regional hospital in the north-east of England. Given the work-based nature of the problem, an action-orientated approach was selected. The Action Research process is cyclical and comprises four main stages, which are planning, acting, observing and reflecting.

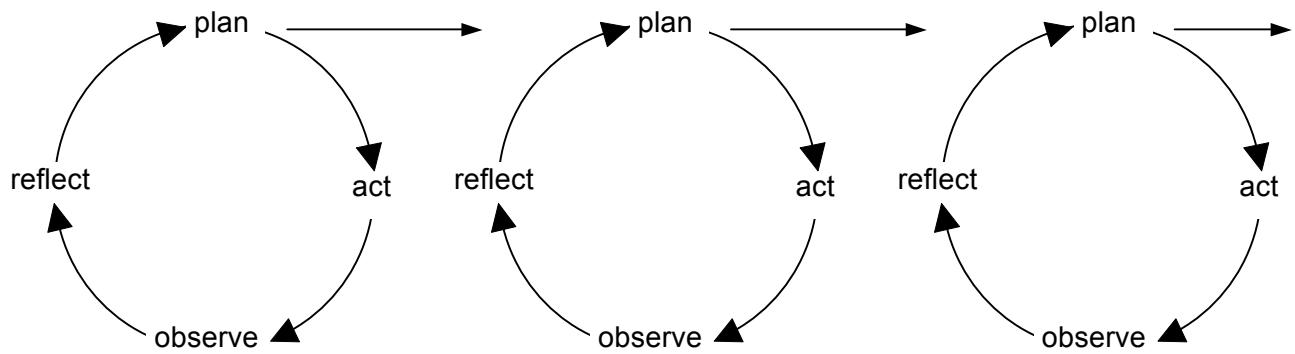


Figure 1 Action Research Four Stage Spiral McNiff et al (1996)

Action Research, is described by Lewin (1948) as an iterative process, which implies that the research process is ongoing. This process is sometimes described as a spiral, instead of a circle, in order to emphasise the iterative nature. The cyclical approach of this method allowed continuous cycles of action and reflection to take place, to capture the changes that occur naturally within the process, therefore, constantly checking the changes that had taken place and understanding the presence of a particular theme, understanding its value and impact in relation to research and the organisation, therefore, providing internal validity. In terms of external validity, there is potential for the resulting outcome of this work to be applied to other health organisations, to aid measurement of improvement. A study that readily allows its findings to generalise to the population at large has high external validity. It is anticipated that this research will be able to be applied to other healthcare sector organisations.

Sampling Methodology

Due to the need to understand team requirements and needs when considering service improvement models, it was decided that focus groups would provide the best means of data collection from a relatively small sample of the population of improvers within the study organisation, therefore, a purposive sample of participants was used for the project; a non-representative subset of a larger population was '*selected because of some characteristic that serves as very specific need or purpose*' (Weiss and Sosulski

2003; Ovretiet 1998: 216). The aim of the study was to explore the quality of the data, not the quantity (Nachmias 1996).

Data Collection

Having clarified the epistemological stance (interpretive constructionist) and broad inductive research approach (action research, through qualitative methods), the next step was to detail the design of these methods. Herr and Anderson (2005) state that the question for an insider-action researcher is, what data is available that have relevance to the study? Based on this, the source of primary data collection was undertaken through a situational analysis, in relation to measurement of improvement (Clarke, 2001). This involved reviewing and analysing documents to identify progress, intra-organisationally, in terms of measuring service improvement initiatives.

Focus Groups

Kreuger (1994) noted that in the late 1930s social scientists involved in mass marketing had doubts about the accuracy of traditional information-gathering methods and used focus group interviews to enable the producers, manufacturers and sellers to understand the thinking of the consumer. McSherry *et al* (2002) liken focus groups to that of an open interview but with a group of people.

Focus groups participants are encouraged to exchange information within the group. This can be particularly helpful for examining both what people think and why. It is a methodology that empowers participants to work alongside the researcher, becoming active in the process of analysis. It is useful when research questions are open-ended, and concerned with elements of people's experience or values. (Kitzinger 1994, 1995; Fontana and Frey, 2000)

Interviews

The unstructured interview is a qualitative research method, based on the phenomenological paradigm. Interviewing experts in the field of service improvement was a rich source of the data for this study. Two participants were selected for interview. Their selection was based on their differing specialist knowledge of service improvement and organisational development, consequently, differing experiences, expectations and opinions. One was an expert in quantitative tools and techniques for improvement and the second was experienced in more qualitative softer aspects of service improvement. Marshall and Rossman (1999) confirm that qualitative researchers rely heavily on in-depth interviewing, describing interviewing as '*a conversation with a purpose*'. Most unstructured interviews are sometimes called 'key-actor', or 'key-informant' interviews.

Triangulation of Data

The approach used to build a robust data set was data triangulation; the combination of two or more theories, data sources, methods, or investigations. This incorporated documentary searches from within the sponsoring organisation, focus groups, unstructured interviews and personal reflections of the insider researcher, to provide the multiple sources of evidence of triangulation in this project. The relationships of the four approaches to data capture and analysis are shown in figure 2.

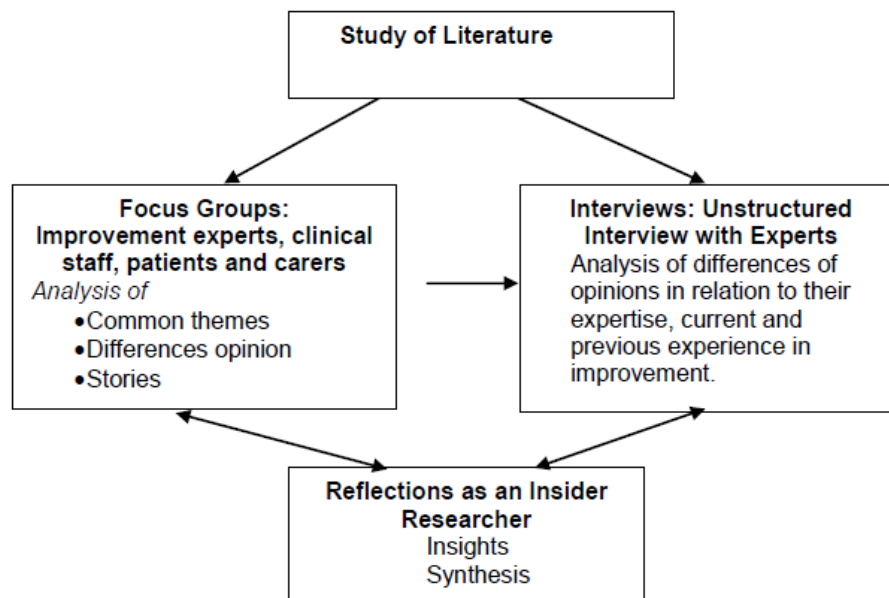


Figure 2: Triangulation – Three Approaches to Data Capture and Analysis

Triangulation is the application and combination of different research methods, to overcome possible bias of data collection (Massey and Walford, 1999) and is considered one of the most significant strategies for strengthening the credibility of qualitative research (Lincoln & Guba, 1985; Miller & Crabtree, 1994). The underlying assumptions of triangulation are that if multiple sources, methods, investigators, or theories provide similar findings, their credibility is strengthened. It also needs to be acknowledged that all these approaches have both strengths and weaknesses, but that using a number of methods allows a more robust set of data to be analysed. These methods need to be applied carefully within the scope of the project, balancing time and availability of the worker-researcher and the participants against the depth of the theory that can be developed using these approaches.

Data Analysis

Data analysis is a critical and potentially difficult stage in any qualitative research project. Symon and Cassell (1998:7) point out that, *'despite the increased popularity and use of qualitative methods there is relatively less information available about how to conduct qualitative analyses.'* The data analysis strategy adopted for this study was developed from good practice cited in the literature, for example in Crabtree and Miller 1992, Marshall & Rossman, 1999, and is outlined in table 1 below.

Table 1 Phases of Transcript Analysis

Phase	Detail of Analysis at Phase
Phase 1: Transcript and analysis marking	Reading the transcripts and marking for words and phrases. Data analysed using coding analysis which is a systematic interpretation and exploration for compressing many words of text into fewer content categories
Phase 2: Deriving themes	Analysis and synthesis of themes from phase 1
Phase 3: Confirming themes	Deductive process of reviewing and analysing the data from phase 1 and 2 leading to the emergence of themes
Phase 4: Verification	Outsider researcher to verify themes

Cited in: McSherry et al (2007)

Results and Discussion

The literature research yielded few resources on the topic; those that were available were dated and concentrated on specific areas, such as public participation method, rather than evaluating the whole process of implementing an improvement initiative.

The research revealed that the NHS had been attempting to put efforts into measuring performance improvement, however, the information relating to it remains incomplete and difficult to assess. The literature also indicates the difficulties and complexities in the particular measurement of improvement in healthcare. It is not as easy as measuring improvement in a business organisation, where data can be easily presented, provided, and recorded.

After the start of the project, a more recent literature search still highlights the lack of evaluation, reflection and review, underlining that typical NHS organisations concentrate on planning and implementing change, yet underestimate the importance of continuous review for embedding and sustaining improvement (Hardacre and Spurgeon, 2006). With most literature concentrating on the use of specific tools for service improvement, rather than the use of multi-method tools for improvement, as a paper by Health Evidence Network (2006) re-iterated, no studies examined whether tools were used properly, or effectively. The lack of literature available on evaluation of improvement initiatives linked with improvement being high on the agenda and the financial constraints within the NHS reinforced the need for this work.

The product of the project has been the development of a comprehensive evaluation framework for service improvement initiatives, based on **five key** elements:

- i. Pre-contemplation
- ii. Contemplation
- iii. Initiation
- iv. Implementation
- v. Sustainability

Each stage is considered when embarking on a change project. Each element has been underpinned with key questions to be asked, to ensure that the correct tools are applied and to ensure that evaluation is present, to demonstrate improvement, a guidance pack has been produced in support of this.

The framework builds on the Improvement Methodology (Associates for Process Improvement, 1996) and the Transtheoretical Model (Velicer, Prochaska, Fava, Norman and Redding 1998).

The improvement methodology (Associates Process Improvement 1999) uses rapid cycle tests of change, to create improvement. This is a clear model, which does mention 'quantitative measurement', but no qualitative measurement and is only, mentioned at one stage in the model, which enabled me to consider further models that had this element.

The Transtheoretical Model of behaviour change (Prochaska & DiClemente 1983; Prochaska, DiClemente, & Norcross 1992; Prochaska & Velicer, 1997) is a model of intentional change. It is based around the emotions, cognition and behaviour of change, something that appears to be lacking in the Improvement mode. It is made up of five stages; table 1 sets out the stages in the two models and what each stage involves:

Table 1: Comparison of PDSA and Transtheoretical Model

Steps in Model	PDSA Model	Transtheoretical Model
STEP 1	3 Preparatory Questions: What are we trying to accomplish? How will we know if a change is made? What changes can we make that will result in improvement?	Pre-contemplation is the stage in which there is no intention to change behaviour in the foreseeable future. Many individuals unaware or under aware that a problem exists
STEP 2	Plan: Plan the change that is intended to be introduced. Clarify the aim. Agree information necessary	Contemplation is the stage in which people are aware that problem exists and are seriously thinking about overcoming it but have not yet made a commitment to take action
STEP 3	Do: Put the change into practice and measure its impact by collecting	Preparation is the stage that combines intention and behavioural criteria. Individuals in this stage are intending to take action in the next month and have

	the agreed data	successfully taken action in the past
STEP 4	Study: Review and analyse the data	Action is the stage in which individuals modify their behaviour, experiences or environment in order to overcome their problems. Action involves the most overt behavioural changes and requires considerable commitment time and energy
STEP 5	Act: Change the plan to what did or didn't work go back to the 'do' stage	Maintenance is the stage in which people work to prevent relapse and consolidate the gains attained from the next six months and intermediate period past the initial action

The trans-theoretical model considers the pre-contemplation stage, in which people are not intending to take action in the foreseeable future, but may be measured for a period of time, until change is instigated. This stage often appears to be missed, or not formalised, when embarking on service improvement initiatives. Although the stages are clear, the sustainability and spread aspects of improvement appear to be missing, along with a clear indication about evaluation throughout the process.

Table 2 Comparison of the Strengths and Weaknesses of the Two Models

Criteria	Improvement Model	Trans-theoretical Model
Easy to follow	Yes - Clear pictorial diagram to explain working of the model. Appears that it could be used on any improvement methodology. No clear guidance on when it is to be used or not used.	Clear steps but uses lots of words to describe, but no clear examples alongside model. Aimed at much softer evaluation such as behaviours, made clear it is for behavioural change.
Measurement	Yes- Mentions quantitative measurement/scientific measurement	Yes- Mentions measurement at stages, not clear what measurement. How do we measure behavioural change?
Evaluation	No clear mention of evaluation	No clear mention of evaluation
Details tools to aid improvement at stages of model	No	No
Similarity of steps in the model	No overt mention of a pre-contemplation step, but the three preparatory questions could be classed as contemplation. Clear action step Does highlight the need to continuously go through the cycles and reflect	Clear contemplation and pre-contemplation stages Clear action steps The notion of continuous reflective cycle is lacking

Synthesis of the two models has led to the development of a new 'BEF' for service improvement initiatives that consider all aspects of service improvement evaluation, to aid sustainability and spread of initiatives. The new evaluation framework encompasses quantitative and qualitative evaluation. In terms of stages in evaluation, it incorporates pre-contemplation and spread of effective practice.

The findings from the project initiated discussion around initial thoughts on the framework and went on to the development of something new. The learning and findings that have emerged throughout the research have been incorporated into the

development of a unique framework, from which the findings may be considered as follows:

The project participants identified that evaluation was a 'softer' qualitative measure of improvement and that measurement was a quantitative, figure-driven assessment of impact. This is supported by the available literature, which suggests that measurement and evaluation are different things (Kizlik, 2006). Measurement, referring to the process by which we measure, generally uses some standard instrument to determine how big, tall, heavy, voluminous, hot, cold, fast, or straight something actually is

Evaluation, however, is probably the most complex and least understood of the terms. Inherent in the idea of evaluation, is 'value'. When we evaluate, what we do is engage in some process that is designed to provide information that will help us make a judgment about a given situation (Kizlik 2006). Generally, any evaluation process requires information about the situation in question. A situation is an umbrella term that takes into account such ideas as objectives, goals, standards, procedures and so on. When we evaluate, we are saying that the process will yield information regarding the worthiness, appropriateness, goodness, validity, legality, etc., of something for which a reliable measurement or assessment has been made.

The feedback from participants and the available literature quite clearly support the definitions on evaluation and measurement provided, indicating that a comprehensive evaluation framework for service improvement initiatives must consider aspects of both evaluation and measurement. The findings of the project add further to this understanding.

Evaluation and Measurement – Interdependent and Exclusive

The themes emerging from the participants identified that evaluation and measurement were 'interdependent', or 'interdependent and exclusive', depending on the requirement. None of the participants felt that they were mutually exclusive. In relation to service improvement initiatives, this information demonstrates that evaluation and measurement are clearly linked, but it is perhaps useful, sometimes, to think of them as separate, but connected processes. In evaluating service improvement, ensuring that both evaluation and measurement are considered is crucial to its success. Due to its ongoing nature, measurement can serve as an early-warning system to management and as a vehicle for improving accountability. Performance measurement focuses on whether a program has achieved its objectives, expressed as measurable performance standards. Program evaluations, typically, examine a broader range of information on program performance and its context than is feasible to monitor on an ongoing basis (GAO 2005). This supports the thinking and development behind the evaluation framework.

Could the framework be used in practice and is there further development

The need for an evaluation framework was clearly supported by the feedback from participants in the project, the literature review and more recent literature, which highlights the lack of a robust evaluation framework for service improvement.

The feedback from participants and experts supported the thinking behind the need for the framework. Participants felt that it was robust and comprehensive. They felt that pre-contemplation, contemplation, spread and sustainability were vital and, often, a missing link when undertaking improvement, thus emphasizing to the researcher that the framework would be a useful tool for service improvement.

A number of primary categories for development were drawn out of feedback from the groups, which are discussed below:

a. User-Friendly

Usability refers to the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use. (ISO 9241-11).

Often, in large organisations, we appear to be inundated with large, bulky, hard-to-understand documentation, which are too complicated to use in practice. Participants highlighted a need to ensure that the framework was clear and that 'clarification' of the model was required. This resonates with the principles of plain English, which consists of *'any message, written with the reader in mind that gets its meaning across clearly and concisely so the reader can take the appropriate action'* (Word Centre, 2005). This was highlighted by Jackson (1999), in the use of the excellence model, stating that, *'there were times when the model was problematic. In particular at inception when the language was difficult to understand'* (ibid: 62).

Over the last two decades, a 'culture of clarity' has been gaining ground in many large organisations around the English-speaking world. In the United Kingdom, government departments, banks, insurance companies, local councils and others have come to realise that clear communication is actually a good idea. Instead of writing to impress or confuse, they are now writing to inform and explain. They are using plain English to do this (Word Centre 2005).

Based on the literature and feedback from participants, the researcher used a technique, suggested by the Word Centre, to ensure that the evaluation framework was easy to understand and developed a plain English guidance pack (see guidance document) to aid the user.

b. User -Involvement

There is now good evidence that trusting and respecting the user/patient, at a number of levels in the system, significantly, improves health and well-being. The Health and Social Care Act, legislative framework, which came into force on the 1st January 2003 (DH 2003), placed a duty, for the first time, on Strategic Health Authorities, Primary

Care Trusts and NHS Trusts, to involve and consult patients and the public. The statutory duties of the Health and Social Care Act bring the voices of patients and the public into the heart of the NHS debate (DH 2003).

The patient and public involvement factor is becoming increasingly important with each new government publication. Teams should ignore the Health and Social Care directive at their peril, as, without appropriate involvement of stakeholders, any piece of work could be floored. The act states that patients and the public must be involved for new and ongoing planning of services and at the very beginning of the consultation.

The feedback from patients demonstrates their willingness to be engaged in improvement activities from their inception and highlights the lack of involvement, in relation to service improvement, in the past. Patient participants highlighted that the mechanism of involvement needs to be in the form of focus groups and questionnaires, to capture patients' views, at the contemplation stage of an improvement initiative. This aspect needs to be made clear in the guidance information for the framework.

c. Feedback Mechanisms and Equilibriums

Feedback is a word to describe a situation in which a part of the output of a process is added to the input and, subsequently, alters the output. In this way, feedback can influence how the process operates. The notion of feedback has been a long-standing idea in biology *and* in mechanics (Tortora and Anagnostakos 1990). Temperature regulation, for example, is a feedback process, to maintain internal body temperature. Similar in function, a thermostat either turns on, or turns off the air-conditioner, based on the temperature of the room. In both cases, it is the control mechanism (temperature) that determines how the system reacts and, if required, feeds back information to the system to stop acting.

This notion of feedback was raised by the expert focus group and was described in relation to biological feedback mechanisms; diabetes was used as an example and there was a need to ensure that, at each stage of an improvement initiative, a feedback mechanism was in place, to confirm that chances of failure are reduced.

The research brought out a new concept for me to consider this was the notion of 'equilibrium', was influenced by discussions with the expert panel. Equilibrium can be described as:

A condition in which others, resulting in a stable, balanced, or unchanging system, cancel all acting influences.

Or:

The state of a chemical reaction in which its forward and reverse reactions occur at equal rates so that the concentration of the reactants and products does not change with time (Free Dictionary 2005).

This concept, of equilibrium being a state of balance, fits with the notion of the framework. If we can fulfil the 5 steps in loop 1 of the framework, the feedback mechanisms built into the framework will aid equilibrium and the improvement initiative will be maintained, through continual evaluation. This state of equilibrium has often not occurred with improvement initiatives, as evaluation throughout has not been maintained and no feedback mechanism has been clearly identified to maintain improvement. Once maintained at loop 1, the next leap is to disturb the equilibrium and move to loop 2 of the framework, which may be developing the original initiative further, or moving outside its original arena. This begins to add an element of risk and disruption to the equilibrium, to which individuals will find hard to adapt, when working on the improvement. It is acknowledged that individuals become comfortable with how they are working and change is hard to accept (Tushman 1988). The evaluation framework aids this process by putting markers in place, to ensure that improvement is maintained when the equilibrium is disrupted. In developing the SSM, Wilson (1990), talks of feedback control in systems; feedback control should ensure self-regulation, in the face of changing circumstances, once the control system has been designed and installed. The essence of feedback control is to be found in the idea of homeostasis, which defines the process, whereby, key variables are maintained in a state of equilibrium, even when there are environmental disturbances. Control is normally exercised within a system through some form of feedback. Control outputs

from the process of a system are fed back to the control mechanism. The control mechanism then adjusts the control signals to the process, on the basis of the data it receives.

Feedback has two major forms; positive and negative feedback. The terms, 'positive', and 'negative' feedback should not imply any value-connotation. We may also distinguish between those feedback processes involved with regulation (single-loop feedback) and those involved with adaptation (double-loop feedback)(Schön 1983).

The notion of equilibrium also raised the concept of 'push and pull', which originates from 'lean manufacturing', being a generic process management philosophy, based on the history of Japanese manufacturing techniques used to reduce waste in the system (Womack *et al* 1991). The 'lean' principles have been applied in many environments, including healthcare for some time now, with staggering improvements in quality and efficiency. The underpinning values of removing activities that don't add value, along with respect for people and society, lie at the heart of healthcare. 'Lean' is a philosophy and a tool for aiding change. Although the tool has been adopted in healthcare, the philosophy is still lacking. Bevan (2005) says that approaches to spreading good practice have largely focused on 'pushing' (spreading, disseminating, rolling out, scaling up) change in the system, often being seen as a way to save money in organisations. The future emphasis needs to be on 'pull', because sustainable change cannot be pushed externally, it is an internal process that starts at the level of the individual. The concept of evaluation and the 'BEF' recognises push/pull. Loop 1 is the evaluation of initiative stage; once adopted, to ensure that evaluation is maintained, loop 2 needs to be adopted and maintained through push/pull equilibrium.

The notion of 'push/pull' to gain 'win-win' relationships (Rubin and Campbell, 2003), looks at how, with greater awareness of our behaviours and their consequences, we can, through push and pull strategies, gain 'win-win' relationships. In relation to service improvement, 'pull' can be described as arising when workers come to understand the benefit of improvement for them and commit themselves to improvement effort, independent of management support (Shaffer and Thompson

1992). Research (Rubin and Campbell 2003) suggests that developing 'employee-pull' is essential to sustaining improvement efforts, therefore, could be seen as a method of maintaining equilibrium (see vignette 5.4 below). Improvement programmes, which are brought into organisations at high level, require a certain amount of management push to gain commitment. These pushing techniques may include training, demonstrating support, providing incentives and clarifying the need to improve. The concept, 'push/pull', needs to be considered in light of the evaluation of an improvement initiative. At the start of the evaluation process, if we want sustainability of the process, then to 'push' would only hinder the process, as people will feel that it has been forced upon them. 'Pull' needs to be developed by those embarking on the improvement feeling the need to measure the impact. Once teams/individuals have recognised this need, built it into their improvement initiative and achieved sustainability, then at this point, 'push' may be adopted, to disseminate the learning throughout the organisation and/or the wider NHS. With this in mind and to ensure that evaluation is considered throughout the implementation of improvement initiatives, the 'push/pull' concept has been incorporated into the framework.

The challenge of this work has been in the creation of something new. Creativity can be defined as happening when someone improvises or undertakes original activity, the very nature of the evaluation framework. Creativity requires the release of human potential, which is at the heart of innovation. Creativity is important and relevant to leadership and organisational development, staff development, culture, innovation, increased productivity and growth (Bass and Steidlmeier 2006). In order for the framework to be developed and cascaded into the organisation, it was necessary to lead this creativity. This was achieved through nurturing the idea through the supportive environment and championing of leaders. This began by communicating with the Chief Executive and Operational Director of the organisation, to ensure that senior management were engaged in planning and executing change from the outset, to improve the chances of a successful implementation. This was followed by communication with the focus groups and individual experts, to allow them to connect with and aid the further development of a framework fit for the purpose.

Communicating effectively was crucial in the development of the project and took place through various mechanisms, from using verbal communication, to written communication, but needed careful consideration prior to delivery. People in organisations, typically, spend over 75% of their time in an interpersonal situation (Jenkins, 2006), thus, it is no surprise to find that poor communication is at the root of a large number of organisational problems. Effective communication is an essential component of organisational success, whether it is at the interpersonal, inter-group, intra-group, organisational, or external levels. Fitzgerald *et al* (2008) state that, in relation to diffusion of new knowledge, the most complex model is the communication feedback model, but the feedback loop from users is an additional success factor.

Rich (1997) reviews the issues in developing measures of knowledge utilisation and suggests that variance in knowledge utilisation can be explained by differences in types of information, as well as by differences in the needs of users. These models, however, only provide a limited explanation of the processes of interpretation of evidence, in situations of ambiguity, where, drawing on Weick's ideas (1995), one would anticipate such 'sense making' to occur. One of the key aspects of communication of innovative work is the ability to 'sense make'. Weick (1995) is adamant that sense making is not a metaphor and should be understood literally. The concept, at its simplest, is 'the making of sense'. In an organisation, sense making is about words in action (Weick 1995) and links with the action-research approach, used in this project. It can be seen from many perspectives, such as structuring the unknown (Waterman, 1990), explaining surprises (Louis, 1980), or the interaction of information seeking, meaning ascription and associated responses (Thomas *et al* 1993). This sense making approach, when thinking about, implementing and communicating the research, is essential to implementation and sustainability of change. Using leaders, focus groups and experts has allowed this sense-making process to develop an evaluation framework that can be understood by its user. What must be considered is that this process of sense making is ongoing, which must be continued, to ensure that it is embedded at both intra-organisational and inter-organisational level.

The development of the framework has implications at a strategic level. The NHS Plan (2000) sets the scene for improving services, on which to build. The plan states that the NHS will work continuously to improve quality services and to minimise errors.

Developing and considering proposals for changes in the way those services are provided (Health and Social Care Act 2001) has become a key feature in healthcare, however, what has become apparent is that local evaluation, to indicate that improvement is implemented successfully and sustained, is often the missing link.

Although there are targets set, nationally, for Trusts to meet, local evaluation of improvement is lacking. More recently, the publications of the NHS Operating Framework 2006-2007 (DH 2006) sets out the service priorities for the year and states that all organisations will need plans in place to implement changes and deliver benefits, highlighting the needs to be able to demonstrate the improvement.

Ashburner *et al*, (2001) argue that a weakness in much of the literature on organisation transformation is that it proceeds at a highly general level and does not define an empirical assessment criteria for judging whether change has occurred. They go on to say, '*no criteria for assessing the extent of change have been established*' (p. 6). This supports the need for an evaluation framework to be available to organisations that will aid the demonstration of improvement. In light of the policies that have been introduced at national and local level, it would appear that the time is right for such a framework to be embedded in change policy.

Culture and Power

Organisational culture is often invisible and hard to define (Schein, 2000), but most definitions agree that culture is created by the members of the organisation and outlines a basic understanding of how the world is and of how the organisation (and its members) should be in the world. In understanding how the world is, people take complex reality, select important elements of that reality and configure them to create a meaningful picture of the world. 'Normal' behaviour around power, diversity and use of time are often so integrated into everyday life that they are taken for granted, yet

they guide the behaviour of members of the organisation and are a powerful factor in how work gets done. Any significant change in any formal, visible element of the organisation will need to be accompanied by changes in the way that organisational members enact their often 'out of awareness' response to change of the organisation's culture. Gabriel (1999: 195) cites Schein (1968/1988), who argues that individuals respond to organisational socialisation processes in one of three ways:

- Conformity – the individual accepts the organisation's culture, absorbs its norms and values.
- Rebellion – the individual rejects the organisation's culture and rebels against it in tacit or overt ways.
- Creative individualism – the individual selectively accepts and rejects the organisation's culture, adapting it to his or her own personality.

Change of culture in the organisations is very important and inevitable. People often resist changes for a number of reasons, including fear of the unknown, loss of power or rewards, or deskilling (Senior 2002: 252), hence, it is the duty of the management to convince people that gain will outweigh the losses. Effective organisational change, such as implementation of the 'BEF', invariably, requires effective leaders. Burman and Evans (2008) argue that it is 'leadership' that affects culture, rather than 'management'. They describe the difference and point out that these leaders are of a specific type. These leaders successfully navigate periods of change, encourage and facilitate difficult negotiations adopting a truly authentic leadership (Bennis 1994) style taking into account the needs of the organisation, group, individual the model and to themselves. They are prepared to disrupt existing patterns of organisational behaviour, create and highlight conflicts and challenge institutional taboos. They also recognise their own role in creating and maintaining the status quo, therefore, are prepared to accept a loss of control and a measure of ambiguity about the future, as the price for increasing innovation and engagement. This may mean letting go of personal control over the hierarchy, or loosening the structures and rules within the organisation that aim for consistency and uniformity (Clarke and Ramalingam 2008). Where other

frameworks and models for change use a transactional philosophy the 'BEF' uses a transformational philosophy recognising there is a strong link between leadership and transformational change. In relation to the 'BEF', senior leaders will need to create a culture for change, embracing change, supporting the emotional costs of change at individual and group and task level and evaluating through transformational leadership (Kouzes and Posner 2003), thus allowing managers to undertake the transactional leadership (evaluation of task) (*Ibid* 2003), leading to double loop learning, through feedback on the results.

Clarke and Ramalingam (2008) compare an organisation to a human mind, with emotional and reflective capacities; we can begin to appreciate the role that emotion plays in making decisions about organisational change. The metaphor is an interesting one, as it helps us to understand why change is often accompanied by powerful emotional responses. These emotional responses can be understood, broadly, at two levels, evoked by a perceived threat to the wellbeing of, either the individual, or the organisation. At the individual level, the people in an organisation have emotional needs for control, inclusion and emotional closeness (Schutz, 1958). When the status quo of an organisation is threatened, individuals feel confused about whether these needs will be met in the future. Organisational changes may lead to a gain, or a loss of power (control), for managers or units within the organisation, or may create the need to dissolve old working relationships and create new ones, upsetting existing groups and relationships. Unsurprisingly, people may feel excited, but also confused and threatened, under these circumstances. At the organisational level, the emotional component is more profound. People tend to invest their organisation with meaning; participation in an organisation's culture means that individuals internalise a specific way of seeing the world (at least, when they are at work). This, in turn, creates a strong emotional bond with the organisation. Any change in the organisation – even a fairly minor change – can be interpreted as a threat to that world-view and to the meaning of the organisation. Such changes, typically, create emotional confusion and distress, which, in turn, leads to resistance to the change. It is important to recognise that this sort of resistance is a necessary and useful element of how organisations

work. It preserves the culture of the organisation, prevents bad ideas being implemented and allows the organisation to retain some stability and continuity in a changing environment. In short, it is a natural mechanism that has evolved in organisations, in order to make change difficult (Nevis 1988; Maurer 1996). 'Traditional' approaches to change, which begin with the assumption of the organisation as a machine and which depend on assumptions of rationality, are not designed with resistance in mind. Change programmes that are embedded in rationality tend to ignore resistance, downplay it as a selfish, emotional response, or attempt to engage with it through rational debate. This is supported by Tran (1998, p. 99), who proposes that emotionality and rationality co-exist in organisational settings and that the acceptability of emotional expression, as a fact of working life, is gaining credence. She also poses an interesting theory, asserting that, for an organisation to learn, be creative and grow, there must be an environment where an emotional climate is allowed to arise, evolve and be maintained.

Fineman (1996) suggests that emotions are:

... intrinsic to social order and the working structures, conflict, influence, conformity, posturing, gender, sexuality and politics. They are products of socialisation and manipulation. They work mistily within the human psyche, as well as obviously in the daily ephemera of organisational life (Fineman 1996: .1)

As a result, emotions often end up as victims of resistance; ignored, shelved, or used selectively. Thinking of the organisation as a mind opens one further important perspective. While the human mind resists change, particularly change that is externally imposed, it can change itself through the process of learning. Writers, such as Peter Senge, suggest that organisations, like people, can learn. Organisational learning certainly requires that the members of the organisation learn, but '*individual learning does not guarantee organisational learning*' (Senge, 1990) and other conditions are also necessary. Of course, some change programmes will inevitably cut across the things that motivate people. This is particularly the case where a change will mean that certain individuals or groups stand to lose power, or influence; power, or at least status, is a very important motivator for many people. Where a change is taking

away things that people hold as important, this should be made explicit, however, implicit within the criterion of effectiveness is timeliness. From my reading and understanding of the literature, I recognise that, to change an aspect of the culture of an organisation, one has to take into consideration that this is a long-term project. Corporate culture is something that is very hard to change and employees need time to get used to the new way of organising. With this in mind ,the implementation and change of thinking that the 'BEF' will bring about will take time and I need to be conscious of this.

Based on the feedback from the participants and its implications on service improvement within the NHS, the framework has been refined to incorporate the recommendations made. The final framework is presented in figure 3.

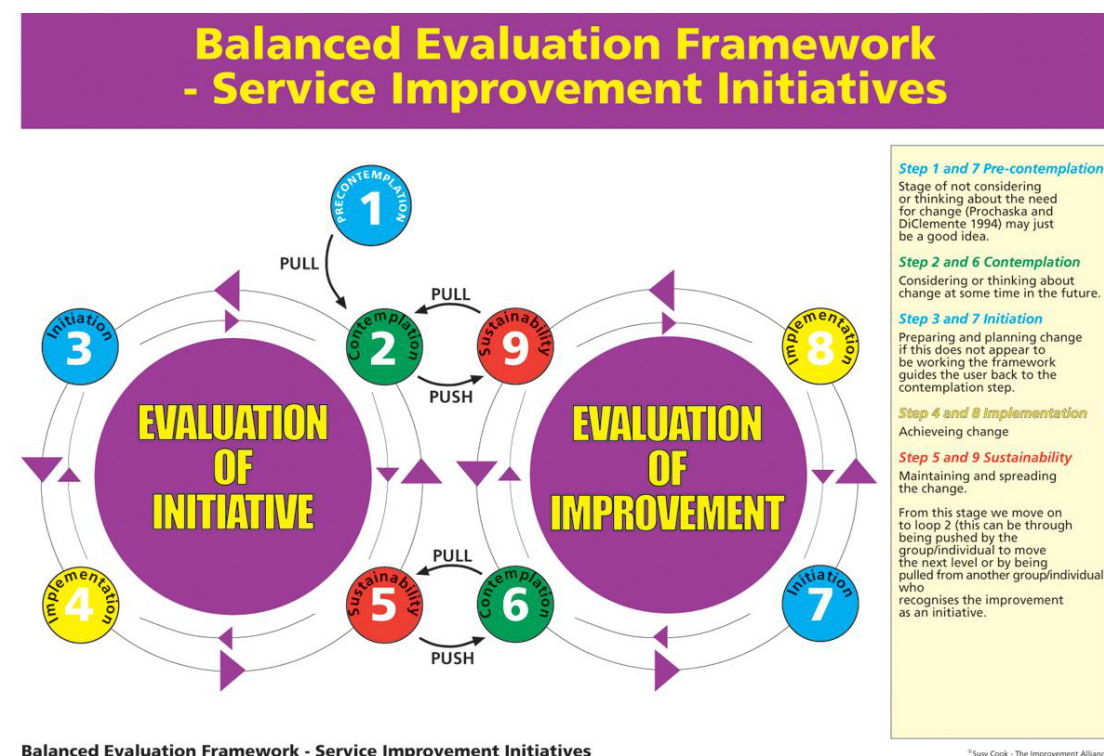


Figure 3: Final Iteration of BEF

This project has focused on a gap in service improvement, that of evaluation. The identified gap has been an important one to me, as it represents a void that exists in the field of service improvement, as practitioners and teams try to initiate improvement and want to experience sustainable improvement, for their own satisfaction, the good of patients and organisational performance, as a whole. The overall aim of this work-based project was the development of a balanced evaluation, to demonstrate the effectiveness of service improvement initiatives. In delivering this aim, I have engaged with key people from across the NHS, to facilitate discussion and debate. In the discussion sections, I have identified key factors required for the framework. I have also critically reflected on the development of the framework and chronicled a stimulating, yet challenging journey.

Conclusion

The literature review highlighted the need for a comprehensive evaluation framework for service improvement initiatives. The most significant points that came out of the review were:

- That the review yielded few resources, most of which were dates and concentrated on specific areas, such as public participation, rather than the whole systems process of implementation of an initiative.
- The implication that evaluation and measurement of service improvement initiatives are not yet present and mainstreamed.
- That some effort was being put into performance measurement, but was incomplete.
- That the literature recognises the difficulty and complexities of evaluation measurement in healthcare.
- That, inevitably, measurement of performance improvement, or service improvement, leads to quality healthcare, therefore, a need to evaluate effectively.

From the literature review and the collection of primary data, the following topics were investigated:

To Understand what we Mean by Evaluation and Measurement

The literature did not discuss evaluation and measurement, in relation to its link with evaluation frameworks. Indeed, this aspect was implicit, rather than explicit. Inglis and Matykiewicz (2005: 87) describe evaluation as 'Process orientated, occurring before and during programme implementation. It focuses on understanding and learning from the processes to make sense of outcomes.'

With measurement described as 'A few specific measures, linked to the programme objectives and aims, demonstrate whether the changes are making improvements (Modernisation Agency 2005: 7).'

The results of the focus groups further supported this as they viewed evaluation as:

- Assessment
- Qualitative
- Subjective
- Summary

Moreover, measurement is viewed as:

- Quantitative

This highlighted the need to ensure that both evaluation and measurement were incorporated into the evaluation framework, to capture both outcomes and outputs in relation to service improvement.

Investigate Whether Measurement and Evaluation are Interdependent or Exclusive

The results clearly highlighted that measurement and evaluation were seen as both interdependent and exclusive, therefore, in order to get a complete picture of the impact of an improvement initiative, both 'hard' measures and 'softer' measures need to be considered.

Determine What Elements are Missing from the Framework and if it could be used in practice

The focus group feedback demonstrated that the framework could be used in practice. It was felt, however, that a feedback mechanism should be developed for the framework to ensure sustainability. A user-friendly guidance pack should also be developed, to support the framework and its implementation.

Based on the feedback from the groups the framework was refined to reflect discussions.

The project has led to the production of a 'BEF' for practitioners homogenised to the NHS environment to aid accurate demonstration of service improvement initiatives at intra-organisational level (figure 3) that can be used by practitioners and teams, when

implementing a change initiative. A guidance document has also been produced, to support the framework.

Conclusions and Recommendations

This piece of research has identified a gap in the body of knowledge, this being the evaluation of service improvement initiatives, which led to the development of a 'BEF'. The action research approach has been an effective method, as it has allowed for reflection and learning to take place and, in turn, aided the development of the framework, through iterative cycles.

The research highlighted that measurement and evaluation are often not considered, in detail, when embarking upon change, but they are both important to understand the impact of a change initiative. It also highlighted that the framework needed to be user-friendly, be replicable, involve users and carers and that it needs to be embedded, top-down, in the organisation. It is anticipated that the resultant framework will affect health policy, by first, raising the profile within the organisation so that people become aware of the need to evaluate change initiatives. Secondly, the use of the framework will build capability within those leading improvements as they consider the implications generated by the application of the framework in practice.

How Does this Research Inform the Future?

Healthcare operates in a challenging environment, where practitioners need to continually drive the improvement agenda forward, hold the gains from success and ensure that improving practice becomes the norm. Users have come to expect a service that is responsive to new knowledge and that can respond, timely, to innovations across healthcare, putting an end to unnecessary variation. The most valuable asset that healthcare has, is the knowledge of those involved in developing and delivering the services; that is what needs to be nurtured for future success.

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