Using interactive workshops to prompt knowledge exchange. A realist evaluation of a knowledge to action initiative.

Rushmer, R.K.; Hunter, D.J.; and Steven, A.

Rosemary Rushmer
Professor of Knowledge Exchange in Public Health
Teesside University,
Middlesbrough,
Tees Valley
TS1 3NN
r.rushmer@tees.ac.uk author for correspondence

David J. Hunter
Professor in Health Policy and Management
Centre for Public Policy and Health
Durham University Queen's Campus
Stockton
TS17 6BH

Alison Steven
Reader in Health Professions Education
Faculty of Health & Life Sciences
Northumbria University
Coach Lane Campus
Newcastle upon Tyne
NE7 7XA

Abstract

Background

Interactive workshops are often the default mechanism for sharing knowledge across professional and sector boundaries; yet we understand little about if, and how, they work. Between 2009-2011, the Research to Reality programme in North East England ran eight stand-alone facilitated multiagency workshops focused on priority public health issues. Local authorities, the health service, and academe collaborated on the programme to share latest evidence and best practice. A realist evaluation asked the overarching question 'what worked where, for whom, and under what conditions' regarding the knowledge exchange (KE) mechanisms underpinning any changes. Data were collected from fifty-one interviews, six observations, and analysis of programme documentation.

Findings

191 delegates attended (local authority 46%, NHS 24%, academia 22%, third sector 6%, other 2%). The programme theory was that awareness raising and critical discussion would facilitate ownership and evidence uptake. KE activity included: research digests, academic and senior practitioner presentations, and facilitated round- table discussions. Joint action planning was used to prompt informed follow-up action. Participants valued the digests, expert input, opportunities for discussion, networking and 'space to think'. However, within a few months, sustainability was lost. There was no evidence of direct changes to practice. Multiple barriers to research utilisation emerged.

Discussion

The findings suggest that in pressured contexts exacerbated by structural reform providing evidence summaries, input from academic and practice experts, conversational spaces and personal action planning are necessary to create enthusiasm on the day, but are insufficient to prompt practice change in the medium term. The findings question assumptions about the instrumental, linear use of knowledge and of change focused on individuals as a driver for organisational change. Delegates' views of 'what would work' are shared. Mechanisms that would enhance interactive formats are discussed.

(281 words exc. headings)

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Introduction

There is nothing straightforward, logical or guaranteed about research usage and its uptake into practice (1-3). It is a social and dynamic process, heavily shaped by cultural and contextual factors (4-7). Increasingly, efforts are underway to explore what works in knowledge transfer and exchange strategies (8). Interactive workshops are often the default mechanism for sharing knowledge across professional and sector boundaries (9); yet we understand little about if, and how, they work. Since the 1930's (10) workshops have been associated with participatory management approaches. Through two-way communication and engagement, workshops are believed to facilitate up-take of ideas and ownership of subsequent changes. However, as a knowledge-to-action technique, 'success' may depend on workshop design and use, and in practice the term 'workshop' may cover multiple approaches. Workshops may be didactic and directed, attempting to steer and propel evidence-informed change, or seek to enlighten and raise awareness (9). If workshop components can mediate between 'evidence' and its uptake (through the psycho-social mechanisms of involvement and ownership) then the precise nature of the 'active ingredients' and the conditions under which they work (or not) should be explored. This paper addresses these issues.

In relation to the Research to Reality (R2R) programme we define our terms as follows (drawing upon (11-13):

- *Knowledge transfer*: the one-way process of sharing research evidence with a targeted group of potential research-users (e.g. education and information giving)
- *Knowledge translation*: efforts to 'package' research findings in a language and format useful to potential research-users, perhaps adding interpretation and pulling out key messages
- *Knowledge exchange*: a two-way process where knowledge, evidence, opinions and experiences of 'what works' are shared and discussed by stakeholders
- *Knowledge-to-action*: any reported changes to practice following and based-upon workshop attendance.

Background

The Research to Reality (R2R) programme (which ran from November 2009 - January 2011) comprised eight facilitated multi-agency workshops in the North East (NE) of England, and focused on national performance targets in public health (14). Initiated by the Regional Improvement and Efficiency Partnership (15) R2R was a collaboration across local government (16) the National Health Service (NHS (17)) and a regional public health

research collaborative (18) [1]. The initiative was made possible by the convergence of several factors, including: examination of comparative data on the performance targets within the NE region (showing common public health issues but varying degrees of success in tackling them); the desire to further explore the nature of complex cross-cutting health, social, and economic well-being issues; a wish to raise awareness of effective interventions; and the availability of funding for the programme. The R2R programme and evaluation were overseen by a steering group (SG) comprised of representatives from these bodies and was co-funded by local government and the NHS.

As a convenience sample, the first six of the eight workshops were included in the evaluation, and covered the following topics which reflect common priorities based on local performance targets.

Insert table 1 about here

Topic	**Targets in England (National Indicators, NI)**
Stopping smoking	NI 123
Alcohol related harm hospital admissions	NI 39
Under 18 conception rate	NI 112
Work and Incapacity	NIs 152, 153, 173)
Obesity amongst Primary School aged children	NI 56
NEETs (16 to 18 year olds Not in Employment, Education or Training)	(NI 117)

Table 1: Six R2R workshops included in the evaluation and their corresponding public health targets

Aims of the programme

The programme aims were wide-ranging and decided by the SG's local authority and NHS representatives with input from the academic members and aimed to: facilitate (two-way) KE between academics and practitioners; provide the evidence base for alternative approaches leading to achievement of targets and improved outcomes; share innovative practice and improve networks between practitioners from different organisations at the strategic and (senior) practitioner levels; and identify potential areas for further research. The specific topics for the workshops were selected by the local authorities.

Workshop invitations were issued via local government circulation lists and targeted at people working to address the public health targets, including policy and strategic leads, portfolio holders, partnerships managers and service managers, alongside lead professionals from partner organisations (e.g. primary care, the acute sector, and third sector organisations).

[1] R2R was a collaboration between the former Regional Improvement and Efficiency Partnership (RIEP) the Association of North East Councils (ANEC), Fuse (the Centre for Translational Research in Public Health), and the NE Strategic Health Authority (SHA). In 2010, a new government was elected in the UK, (in the middle of the programme), and health care system reforms were introduced. At the time of writing the SHA and RIEP no longer exist. The national performance indicators were changed.

Programme theories

The programme theory (highlighting the underlying psycho-social mechanisms providing the active ingredients to facilitate change), was:

- by facilitating critical discussion of 'what works' (academic and practice-based evidence, in written and verbal form), across academic and field experts and amongst peers, understanding of the practical application and potential benefits of evidence use would be increased, uptake of the evidence would be facilitated and changes to practice would follow.

A secondary programme theory was that:

- allowing policy, practice and academic partners to come together to consider their common interests, share the challenges and opportunities of working on public health issues, trusting relationship would be initiated and these would be followed-up by future contact and collaborative work.

Workshop format and knowledge exchange activities

To meet the diverse aims of R2R, a complementary set of KE activities were selected to meet the complex inter-linked social and relational mechanisms needed to get evidence to follow across sector boundaries (5). The conceptual and empirical tradition behind these approaches is long and well-established. It can be found in the seminal works of multiple cognate disciplines: organisational psychology (19); participatory management (10); change management (20, 21); quality improvement (22); participatory research approaches (23); complex system thinking (24). What they all have in common is the recognition of the need to appeal to both the *hearts* as well as the minds of those taking part. The following sets of KE activities were selected:

- *Pre-circulated Research Digests*: Prior to each workshop delegates received a research digest. Commissioned from a lead academic the digest contributed to knowledge exchange by summarising key messages from the evidence-base, identifying gaps in evidence or contested issues, and highlighting where evidence was strong (25).

- *Presentations and questions*: At the workshops academics and senior practitioners gave short presentations (20 minutes), on best evidence and innovative practice in the field, to provide active interpretation of the evidence, and addressing the learning styles of those who learn visually or by listening rather than reading (26).

- *Facilitated round-table discussions* followed based on the material presented and aimed at teasing out implications for local practice and public health initiatives. Delegates could air concerns, ask questions, share experiences with peers, and generally consider the material without feeling' pressured (20, 23, 27). Delegates from different organisations were allocated to each table to facilitate new relationship building. Longer refreshment breaks created informal networking opportunities.

- *Action planning exercises and written personal commitments*: attempted to prompt follow-up action, encouraging delegates to consider how they might use material shared on the day in their future practice (knowledge to action) and how they might wish to work with academics and research evidence in the future.

- *Informal networking*: at lunch and coffee breaks (as well as the formal programme activities (the formal curriculum), significant time was allowed to let delegates mingle and network (9).

The evaluation

An evaluation was commissioned to ascertain if the programme fulfilled its purpose (described above); and if any changes or follow-on activity occurred that participants attributed to workshop(s) attendance. Data collection included observation of the workshops; documentary analysis of materials; and interviews with a sample of attendees in the four weeks following the workshop (short-term) and 4-6 months later (medium term). Interviews were audio recorded and transcribed. To synthesise data streams, an overarching realist theoretical (28) approach was used to ask: 'what worked, where, for whom, and under what conditions'. This approach assumes that both the psycho-social mechanisms underpinning the KE activity (mechanism) and format of the workshops and the backdrop against which they took place (context) would influence 'what worked' (outcomes).

A modified participatory action research design (co-creation, (29) was employed to work closely with the SG. Feedback forms were used on the day to assess satisfaction and perceived value. Early feedback was used to refine the format of later workshops. Findings were presented at the UK Public Health Association annual forum (March 2010), and at the UKCRC centres of excellence in public health conference in June 2011, and at the final R2R workshop (January 2011) to gather additional feedback and expose the data to the interpretation and scrutiny of a wider audience.

Findings

Attendance at the workshops

Insert Table 2 about here

Organisation	Percentage of total number of attendees
Local authority	46%
NHS	24%
Academe	22%
Third Sector	6%
Other public sector organisations	2%
Total attendance (all 6 workshops)	193

Table 2: percentage representation of attendees from stakeholder organisations (6 workshops)

Nearly half the attendees were from local government and about a quarter each from the NHS and academe. Only two delegates attended more than one workshop (two workshops each), showing that of the 193 attendees recorded, 191 were different people. Three elected council members attended workshops (each attending a different workshop). Identification of the role of those who attended illustrated that the programme did not attract the strategic policy leads and senior managers for whom the programme was devised, but that attendance had been largely delegated to more junior members of the organisation.

Sampling for Evaluation study

Insert table 3 about here

Workshop	**Overall workshop Attendance**	**Mix of attendees**	**Numbers consenting to contact**	**Short-term interviews**		**Aprox. Mix of interviewees**	**Medium-term interviews**
				Research participants	**Session leads (presenters)**		
NI 123 Stopping Smoking	36 (inc. 7 facilitators and the academic lead)	10 local Gov/LA 13 NHS 9 Academic 2 public sector 1 third sector	19	5	2	2 academic 2 public sector 2 local Gov / LA 1 third sector	1
NI 39 Alcohol harm related hospital admissions	46 (inc. 8 facilitators and the academic lead)	16 local Gov /LA 16 NHS 12 Academic 2 public sector	17	5	1	2 Loc Gov / LA 3 NHS 1 public sector	1
NI 112 Under 18 conception rate	41 (inc. 7 facilitators and the academic lead)	13 local Gov/LA 14 NHS 10 Academic 4 third sector	13	7	1	3 local Gov / LA 3 NHS 1 academic 1 third sector	2
NIs 152, 153, 173 Work and Incapacity	39 (inc. 7 facilitators and the academic lead)	20 local Gov/LA 8 NHS 9 Academic 2 third sector	13	4	1	1 local Gov / LA 2 NHS 1 academic 1 third sector	1
NI 56 Obesity in Primary School aged children	25 (inc. 7 facilitators and the academic lead)	10 local Gov/LA 5 NHS 9 Academic 1 third sector	5	3	1	2 NHS 1 academic 1 third sector	2
NI 117 Young people not in education, employment or training (NEET)	47 (inc. 5 facilitators and the academic lead)	38 local Gov/LA 3 Academic 6 third sector	21	7	1	5 local Gov / LA 3 academic	2
TOTALS	193 (exc. facilitators)			31	7		9
Planning team interviews	4						
Total number of interviews	**51**						

Table 3 Workshop Attendance and Participation in the Evaluation Study

Impact of contextual changes: data collection and study design challenges

A flexible response was needed to collect data against prevailing contextual conditions. Non-attendance at workshop 1 was 40% (pressured workloads given as a reason). Subsequent non-attendance rates were lower but never below 15%. Workshop 5 (28th June 2010) accidentally coincided with major reform announcements (the coalition government's emergency budget 2010) and many delegates were recalled to their organisations on the day, affecting attendance figures.

Recruitment of participants to the evaluation proved difficult. Even with provisional consent via the workshop feedback forms, many delegates failed to respond to repeated e-mail contact. In many cases it was necessary to contact all who had consented in order to achieve the numbers of interviews reported here. Fifty-one interviews were undertaken (38 short-term, 9 medium-term, 4 with SG members). Originally, all participants were to receive a follow-up interview. However, following the first interview, few participants had any potential follow-up action to report, or declined to be re-interviewed. Those who reported possible follow-up activity were re-interviewed to explore what happened to their plans in the medium term.

Consideration of the main findings

Care must be exercised in interpreting the findings to avoid over-generalising from a small study undertaken against a turbulent public sector background subjected to unprecedented pressures and changes. The evaluation asked: "what worked, where, for whom, and under what conditions?" in terms of the extent to which the R2R programme met its aims. What follows is a summary of the main findings reported by KE activity (for a full report see (14).

On the day and short-term findings

Pre-circulated Research Digests: were highly regarded by all, with attendees reporting they gave clear, concise and weighted views of the latest research evidence to raise awareness.

Presentations: Similarly, the workshop presentations (delivered by both senior practitioners and academics) were valued as useful summaries of a wide range of material in a balanced way that was tailored to local needs. Overall, attendees wanted existing evidence identified and made available to them in formats they could use and in a language they could understand. They wanted such 'manageable packages' to be delivered automatically (perhaps online) or be available in clear 'one-stop' places. The predominant message was: 'tell us what works' (or does not work), backed by a common call for 'clear actionable messages'. When asked how academics could help, attendees often saw them as having the ability to bridge, translate and interpret evidence across the practice-academe interface.

Delegates felt presentations did not work when they were too long, or overly focused on a single project and thus ignored wider issues. In addition, although attendees believed

knowledge was shared by academics with practitioners, they were less convinced that the flow of knowledge was two-way. We did not find any evidence that new relationships were formed between academics and practitioners as a result of the workshops.

Facilitated round-table discussions: all delegates welcomed the chance to discuss material with colleagues working in similar locations across the region, to learn from their experiences and from innovative practice, and to be given the chance to 'make-up their own mind'. Research evidence was not necessarily privileged above this 'situated knowledge' (30), but it was believed that there was an opportunity to encompass and consider different forms of knowledge.

> 'The model that (X academic) used, the hierarchy of evidence, and the 'gold standard' has been sort of the RCT and the mega-review of RCTs, that's the one model of evidence. There are also other forms of data and studies you might collect, and they might be more useful in local settings. I think there are huge opportunities here for wider conversation.' (workshop 2, NHS, senior role)

Informal networking: attendees enjoyed informal parts of the programme (coffee, lunch), catching up with colleagues and finding out how various developments were progressing. A few delegates welcomed the time-out to pause and reflect upon current practice. All this alludes to multiple flows of knowledge taking place (often ad-hoc, unintended and beyond the formal programme parameters) between attendees, across sectors, and geographical, professional and organisational boundaries. Akin to the hidden curriculum in education these knowledge flows suggest knowledge exchange evades formal control (31, 32). Delegates also valued session leads joining the round-table discussions and taking part in the group work for more in-depth conversations.

Delegates believed the workshop discussions did not work when dominated by particular individuals, groups or organisations, or where thinking was too parochial, and blinkered against wider issues. This reminds us that (as in all 'educational' initiatives) the workshops themselves are still part of, and reflect, a wider set of social relationships and do not, by virtue of their developmental nature, transcend social dynamics (33).

Action planning exercises and written personal commitments: the follow-up actions attendees committed to on the day were of two types. The first were modest, low-level, mainly individual focused, not time-consuming, low-risk and not requiring changes to other things (e.g.' make a phone call'). Other follow-up actions were more ambitious, yet ironically, expressed in vague terms giving little detail of how they would, or could, be achieved (e.g. 'feed research findings in to wider arena').

There was frustration that research evidence did not give the answers attendees sought (34). Research tended to answer the questions '*what is happening?*' and *'why?* Delegates often felt they knew enough about the issues and their causes and were looking for answers and solutions to inform action. Whereas the research evidence often led to *increased understanding* of the issues, delegates' believed their need to be beyond this:

> …because again I had the same disappointment that *we've got masses of research around what the problem is and very little research around what actually the solutions are*... (workshop 3, senior member local government)

It was widely felt that research was less able to provide easy answers here. We may speculate that researchers attempt to 'understand', whereas practitioners need to 'do' and this fundamental difference in practical orientation results in a mis-match between what research typically uncovers and what practitioners want (34). Weiss refers to using research to 'enlighten' rather than instrumentally and directly change practice (4).

This finding had been anticipated. Particular KE activities had been built into the programme (in line with the programme theories) to prompt and build upon the relational and softer discursive elements underpinning knowledge exchange. With research evidence providing few (if any) directly actionable messages (perhaps due to the complex nature of public health issues (35-37), the round-table discussions were designed to allow stakeholders to discuss issues in order to apply the evidence and tease out the implications for local practice (38). From observations, this appeared a step too far (or too difficult) to take. We might speculate that there needs to be additional and perhaps on-going intermediary step(s) to make this possible. Delegates seemed resigned to this lack of direct utility in the research evidence, or in the practical examples that were shared.

> '…hearing what other people are doing is always interesting, although it doesn't necessarily go anywhere.' (workshop 2, NHS, middle tier)

Informing delegates of the evidence base and letting them discuss it, was not the same as working with them to make it happen. Nor was the material shared focused directly on actionable messages and the practical steps necessary to make changes happen.

Lasting changes (4-6 months post) workshop

For the vast majority of attendees, nothing appeared to change as a result of workshop attendance in the medium term. Commonly, they struggled to remember the workshop when interviewed a few weeks later, which may suggest little or no lingering learning. There was a small amount of data suggesting some information had continued to be shared after the workshops (mainly in the third sector). One or two delegates reported that workshop attendance had prompted them to take action, or had led to changes. However, when pressed, they clarified that these developments were already under way, although they claimed that workshop attendance had given them the impetus, confidence, or leverage they needed to press forward. This suggests a tactical or even political use of evidence to justify activities (4, 6).

Delegates identified a complex set of contextual conditions that militate against change and act as a considerable barrier to using research evidence effectively. These reasons are well documented in the literature (4, 5, 7, 25, 35, 39) and include: lack of time and capacity; the negative impact of national targets in driving certain behaviours and agendas whilst simultaneously precluding others; lack of senior leader buy-in, the complex nature of issues and systems in public health where solutions are similarly complex and cross-cutting; and wider contextual instability and financial pressures. Other reasons refer to the cultural backdrop of delegates' organisations showing a reluctance to use research evidence; the need to work intensely on imposed national agendas; the fossilisation of existing services over time and the sheer effort needed to change large bureaucratic organisations.

> …and quite often we have got things in place that are there for years and years and years and years… (workshop 6, local government, middle tier)

Discussion

We return to the overarching theoretical question: 'what worked, where, for whom, and under what conditions' with regards to the programme theories (immediately and in the medium term).

What worked: the R2R programme largely succeeded in its more modest aims *viz.* allowing knowledge transfer (knowledge flowing to a targeted audience) from academics to practitioners and knowledge translation (interpretation, synthesis and packaging) though the research digests and presentations. The research digests themselves represent a lasting output of the R2R programme although they will require regular updating to remain useful. The workshop discussions and 'informal spaces' (socialising over coffee and lunch) allowed the R2R programme to meet its aims of facilitating KE (two-way, knowledge sharing) between workshop participants. Yet, despite all these positive features and the combination of KE activities that seemed to work on the day, from our sample we could find no evidence that any of these gains were maintained, embedded or even remembered post workshop.

What did not work: Our findings suggest that gains on the day were not sustained. Planned activities were almost never followed through. The R2R programme largely failed in securing any knowledge to action (to address the meeting of targets) following the workshops. The R2R workshops succeeded in initiating enthusiasm about research evidence and its potential to impact positively but did not facilitate direct changes to practice (knowledge-to-action).

As a programme for accelerating the uptake of research evidence, we conclude that R2R was 'necessary but (on its own) not sufficient' (40) to secure the full range of changes desired against a backdrop of considerable and rapid systemic upheaval. If education, information-exchange and general awareness-raising are the primary desired outcomes, then a programme of one-off topic-based workshops delivered to a mixed, self-selecting audience might well achieve its aims (although these may not be sustained). If, however, the aim is to increase the chances of securing follow-on evidence-informed activity that is embedded, an alternative approach may be needed.

Achieving and sustaining knowledge to action - an overt explanation

Follow-up activity (knowledge to action) appeared to rely solely upon individuals' good will, capacity and determination. There did not appear to be any processes or structures for support, facilitation or to provide any information needed along the way, nor any systematic way of tracking progress in the changes attempted i.e. there did not appear to be well-developed organisational systems for change. Change seemed reliant upon champion-led crusades (person-dependent systems) (22).

Delegates were clear about what they believed would work better in terms of levering sustainable change that would embed in routine practice (i.e. what would help). Unprompted, they asked for a regular, rolling programme of events that, over time, would allow participants to develop trust and ways of working together, with the necessary authority to make decisions and that were tied to strategic plans and agreed with stakeholders in advance. Several core activities and the underlying active mechanisms (that links these activities to outcomes) were missing from the R2R programme. We identify these below in order to develop a finer grained mid-range theory regarding the conditions under which interactive workshops 'work' to facilitate KE.

A more nuanced view of change initiatives and the nature of evidence?

The R2R programme used individuals as the basic unit of change but we have to question the likely effectiveness of this. Decoupling attendees from their routine work, giving them an opportunity to learn about and share innovative ways of working before returning them to their work setting where nothing has changed may encourage change efforts to stall (my paper). Changing a person (educating, informing, persuading and motivating them) will only work if people are the prime barrier to change. Our findings suggest that most barriers were systemic, processual and organisational, or concern the capacity of the evidence base to support action-oriented recommendations. It is these things that need to be 'fixed' not individuals.

R2R also presented pre-existing evidence. Ownership of, and engagement with the findings, was supposed to evolve through discussion of the material with academic and field experts and peers. However, it is likely that presenting evidence and solutions created elsewhere, at another time, in another context is likely to be weaker at facilitating ownership of the findings than working collaboratively with delegates to create tailored and lasting solutions to address their specific needs (41, 42).

A Knowledge-to-Action initiative - What does 'did it work' mean?

Whilst delegates could not attribute any direct changes to workshop attendance (strong, direct, linear, instrumental pathways to impact) there may be general awareness raising taking place or latent learning (seeds planted) but this is largely unknowable. Attendees did mention a few softer, less direct, unexpected influences, for example where the workshops gave delegates the confidence of their convictions and this (eventually but indirectly) facilitated change. Or perhaps attendance gave them tactical leverage in pushing an idea forward (political and tactical use of evidence, (4) with the more subtle result that research evidence is useful in prompting and propelling change. In these examples, evidence does not work as a knowledge-to-action 'torch' to illuminate new workplace services, interventions or behaviours, but 'works' by removing barriers to changes already planned and oiling processes. These uses of evidence are neither straightforward nor simple but suggest knowledge-to-action is complex and unpredictable, with research participants struggling to identify the role(s) that knowledge-to-action efforts play or the changes to which they (even if modestly) contributed. Identifying causal pathways could therefore be challenging. This is turn makes researching this area similarly complex. The challenge is for

academic researchers to get better at developing new methodologies to follow the action (43) and research designs to open up these issues to closer scrutiny.

Concluding Remarks

Against a backdrop of considerable system change and financial constraints, we conclude that the R2R programme as a stand-alone set of interactive workshops to share evidence and prompt change did not provide activities to meet all the underlying psycho-social mechanisms necessary to support direct change. What seemed to be missing (where things did not work) centred on the provision of social support, conditions for learning and capacity building in identifying opportunities and addressing blockages (i.e. encouragement, praise, chances to practice new approaches, recognition in light of success, feedback, constructive criticisms, on-going joint problem solving, building negotiation and persuasion skills), etc. It is difficult to see how one-off workshops could achieve this unless embedded in a wider collaborative programme.

Working in co-creation (42) to collaboratively devise bespoke research driven solutions to organisational problems might be an ideal, but if the aim is to share existing evidence then a few alternatives might be possible. These could include:

- an iterative programme (perhaps through a learning set approach) flexibly conducted over several shared workshops with practical and embedded attempts at change during intervening periods;
- a dedicated embedded team within the organisation(s) (as a task and finish collaboration perhaps) to focus on and drive change from within (41);
- create a mentoring system to provide questioning, external input;
- a more comprehensive approach that blends parts of each of the foregoing depending on the degree of education, involvement, support and skilling needed.

Without some such extended approach, and in the absence of follow-up to any initial workshop, momentum is likely to be lost and change falter as occurred in the example we have presented.

(4,064 word exc. abstract and tables)

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