

Using Large Scale Individual Creativity to Improve Organisational Efficiency

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Abstract

This study reviews the outcomes from six similar organisational interventions two from the USA, three from the UK (one using Appreciative Inquiry) and one from Romania. By way of an illustration the process used by one of the interventions (Clapp, 1991) is described in detail. This process uses a well-defined problem to elicit potential solutions from people working in the organisation who have knowledge of the problem area. The results are compared with the five other interventions that use a similar process. The results show that given a supportive environment and a clear objective most people will engage in a problem-solving exercise and generate many ideas, the bulk of which are set within the current context. The number of ideas generated per person ranged between 1.33 and 1.53. Whereas for the project that used Appreciative Inquiry the number of ideas generated per person was 2.3. The average value of the savings from the ideas of each project ranged between £3.44K and £6.88K. These studies provide support for the theory that all people are creative problem-solvers given the opportunity to become active participants (Kirton 2003). Furthermore, to make use of this creativity in an organisation, managers have to provide a setting that will support and motivate individuals to focus their potential on a target of organisational importance.

Key Words: individual creativity, organisational performance, OD process replication.

Introduction

When markets change, the first parts of an organisation to adjust to the new external environment are the departments that are externally focused, typically those concerned with customers, suppliers, competitor information, and cash flow (Cummings & Feyerherm, 2005). Other departments more internally focused or buffered from the external environment may not perceive the need for change, or, if perceived, do not feel the need to respond urgently. It is usual for the resulting gaps in organisational performance to have to exist for some time, or to suddenly increase in magnitude before they are recognised as important. When large organisations need to respond urgently to such performance gaps, it is important that the problem is well defined and an appropriate intervention framework chosen.

The collective actions of the management team play a critical role in evaluating both the environmental changes that have taken place and any resulting gap in the organisation's performance (Kotter, 1996). Cummings & Feyerherm (2005) indicate that many interventions fail not because the processes or techniques used are poor or badly planned, but because their use does not match the needs of the situation (p. 40). Furthermore, the techniques as well as individuals in the problem-solving group will be different, dependent on whether the problem is perceived as

strategic, operational or both

A process by which individual ideas are channelled into organisational improvements is described in (Clapp, 1991) and is used in this study as an illustration. Prior to consideration of the process detail some of the main theoretical issues are explored.

Background

Managers often think that most people (except themselves and those more senior) are unable to contribute creatively to organisational problem-solving. Moreover, when senior managers are involved, the need for confidentiality tends to be overplayed, (see Ganslen, in Bunker & Alban 2006 pp93), while the value of the individual contributions from the workforce tends to be underplayed, as does the value of their cumulative contribution.

Such misconceptions ignore the reality of the needs of effective and creative problem-solving where an understanding of the problem, knowledge of the context, individual capacity and appropriate thinking style are all necessary. Also, most importantly, is the opportunity and motivation to contribute.

The vital role of management is to bring all of these variables together and ensure that they operate in harmony. Thus, when the problem and its context can be understood by most people in the organisation (as is the case with many operational problems) and collectively individual capacity is more than sufficient to solve the problem, then a problem-solving intervention can be organised to which all staff can be invited to contribute.

Where the problem is less widely understood (as in many strategic problems), contributions are of necessity only available from a smaller group of people. This has the disadvantage of limiting the diversity of the problem solving group, its communication with others and eventually the implementation of any solutions.

In Cognitive-style theory each person has a preference for producing ideas along an Adaptive-Innovative (A/I) continuum where the more Adaptive are concerned with doing things better, and the more Innovative, with doing things differently (Kirton, 2003; Drucker, 1969). In organisational life where problem solving within the current context predominates, effective contributions will tend towards the Adaptive; whereas, in situations where the prevailing paradigms are to be challenged, effective contributions will tend towards the innovative. Thus, the membership of problem-solving groups will be influenced by the style or form of the solution required.

In effective groups, the favoured individual styles are consistent with the solution required. However, where group membership is fixed (as in some management teams), there is a tendency for problems to be solved using the favoured style(s) of the membership resulting in solutions that are sometimes less than effective.

If all people can be seen as creative problem-solvers separated only by style, then, when organisational problems are to be solved, all people with an understanding of the problem area can

be asked to contribute. This ensures that the widest knowledge of the organisational system is made available along with the broadest diversity of style. When invited, those motivated enough to make a contribution will need to be provided with any information vital to the focus of the range of problems to be considered (Cooperrider et al, 1999).

The following describes the use of these views in organisational problem-solving in the traditions of Large Group Methods (Bunker & Alban 2006) and Action Research (Lewin, 1946) where large numbers of individuals contribute solutions to organisational problems.

Problem Definition

In Clapp (1991) a problem perceived by the senior managers of a multinational organisation suggested that the operating costs of the corporate divisions (who total some 1600 people and provide a central point of integration for a number of common functions eg Finance, IT etc) were too high and that the cause was rooted in a continuing development orientation of staff after a large, long term development project had been completed. This was seen as preventing an adequate response to an increasing market pressure for lower unit costs.

Intervention Framework

Building on the views outlined earlier, senior managers thought that because of the pervasive nature of 'costs,' it was likely that all of the staff would have detailed current information concerning operational activities from which sound practical cost reducing ideas could be derived. It was proposed therefore that the intervention should include all of the individuals in the various corporate divisions that wished to contribute.

It was also clear that the potential contributions from so many individuals would need to be progressed through a defined process or 'road map', so that ideas could be efficiently evaluated and put into use. A project structure was proposed to manage the process and ensure that the administration necessary to keep track of all of the ideas would be made available.

Project Start-up

Before the intervention project could start a number of supporting activities needed to be progressed so as to ensure that the commitment of senior management, the project roles and expected outcomes were all clearly understood.

These activities in detail consisted of:

- 1) a formal commitment from the senior management team identifying the need to reduce costs, and also supporting the creation of a project team to progress an intervention with the following three prime objectives:
 - i) to involve only the corporate divisions of the company;
 - ii) to focus on generating opportunities to reduce operating costs by a target of 40%;
 - iii) to complete the project within 12 weeks.
- 2) the appointment of a skilled project leader acceptable to the people in the corporate divisions.

Rationale: From a progress point of view, a project group, removed from day to day priorities, was felt to be essential. Such a project would be able to maintain a focus for both information and resources sufficient to ensure a timely completion of the activities. Also, an independent group would provide a means of ensuring that useful ideas were captured, evaluated and implemented

according to the merits of the idea, rather than the personal disposition of those involved as decision makers.

The Intervention as a Project

With the project manager appointed, the internal administration of the project was started by pursuing a number of activities in parallel as follows:

1) The appointment of a team to support the project manager. One project member was appointed for approximately every 100 members of the corporate divisions. These team members were responsible for the defining a number of smaller multi-skilled groups (5-10 people) who were focused on particular functional activities.

Rationale: The balance between the formal project team members and the number of staff in the target divisions is, to some extent, an arbitrary choice.

However, the more entrenched the organisation, the more work the formal members of the team have to do to provide an environment capable of supporting project objectives. As it is easy to underestimate the amount of communication and discussion necessary, particularly amongst the managers and supervisors involved (who may feel rather isolated), more, rather than less formal project staff should be considered; extra staff being particularly valuable during the start-up and idea generation phases of the project.

2) The planning of the four major stages of the process (problem identification, idea generation, evaluation and implementation). Here, the elapsed time between start and completion for each stage and the overall project timescale was scheduled, recognising that the activities of some stages could overlap).

Rationale: The use of a process model helps to explain and plan the different stages of the project in a transparent and comprehensible way. It also enables all involved to understand how the project will achieve the outcomes required, as well as producing a common language for use by those involved.

3) The construction of a letter to be sent from the CEO to all staff in the target divisions communicating the objectives of the intervention. The letter contained information covering the following points:

- a description of the problem;
- for this intervention everybody would be asked to contribute ideas. Wherever possible, ideas would be accepted and implemented quickly.
- the formal project activity should be seen as a facilitating mechanism;
- the expected results were savings of 40% of the operating costs of the target divisions;
- an introduction to the members of the project team and their links with the different target divisions.
- the detail of the role that the project staff would play in facilitating the process;
- the time scale for the overall project and each of the project stages;
- a request that all recipients of the letter should contribute to the objectives of the project;
- recognition that surplus resources may be identified (details of the policy for dealing with any jobs that may be affected are necessary if individuals are to problem-solve without fear). This is particularly important where there is no established policy covering re-deployment, redundancy, early retirement etc. For an effective intervention trust and respect are important 'values' in the way the organisation operates;

- an invitation to the recipient of the letter to attend a briefing meeting where more detailed information would be presented for discussion;
- a suitable expression of thanks to each individual for their interest and any contributions;

Rationale: Such a communication serves to define the problem publicly as well as focus and legitimise the involvement of every individual in providing solutions. It also serves to communicate the essential detail and time scales of the project and the roles of the project team. To sharpen the focus, the letter should be distributed on the same day to every person involved. Where people are away from the office for a lengthy period, the letter should be sent to their home address.

- 3) The construction of an information pack for each of the smaller groups that contains all of the basic project 'start-up' information i.e. the project plan, base operational information (e.g. budgets, reject rates, drawings, supply costs etc.) and the description of some techniques that help in the generation of ideas.

Rationale: The information pack provides a data-base of valid, standardised operational information, which can be used to provide a base line of the problem.

- 5) The scheduling of sufficient briefing meetings to allow all staff invited to attend. The meetings need to be arranged as close together as was reasonably possible and chaired by a senior member of the management team.

Rationale: These meetings provide a forum to address the way the project should operate they also provide a setting where the processes concerned with the Project outcomes can be questioned. High on the agenda of most meetings was the process through which any staff redundancy would be handled. It is essential that staff concerns be handled in a clear, responsible way, which maintains management credibility and avoids staff feeling victimised. Failure to do this will result in staff withdrawing from the project in order to protect, as far as possible their future.

- 6) The Creation of an administration system to collect and control the following data for each idea:

- a unique serial number to identify each idea;
- names of the author(s) of each idea (it is important that all contributors understand that this data item is only to provide a means of returning information to the correct individuals);
- divisional location of the author(s);
- description of the idea;
- potential cost of implementation, capital, one off and revenue;
- potential savings, capital, one off and revenue;
- comments from first evaluation panel;
- comments from any second evaluation panel;
- final evaluation status;
- implementation responsibility.

Rationale:

If the details of each idea generated are to be captured, a well-managed system is essential. In the absence of such a system, the project team quickly becomes overwhelmed, ideas are lost and duplicates go undetected. In such conditions, the credibility of the intervention is quickly lost.

- 7) Establishing agreement to the way ideas will be evaluated, and nominating specialists, managers and supervisors as evaluation panel members.

Rationale: The agreed procedure for evaluating ideas was through panels of assessors who formally reviewed the utility of each idea. To avoid ill -considered decisions, each rejected idea had to be reviewed by two panels who had to agree on the outcome. Any disagreements resulted in the idea being carried forward to a panel of more senior staff for a further review. This review procedure could also be triggered by the project team members where it was thought that an idea had been incorrectly accepted or rejected. There were four levels of assessment panel: departmental (where ideas were evaluated as soon as they were complete and any accepted ideas quickly implemented), divisional managers, a panel of directors and lastly the Chief Executive.

- 8) Gaining agreement to the responsibility for the implementation of approved ideas.

Rationale: The success of a project and the benefits to the organisation depend upon the successful implementation of the approved ideas. There would be little more damaging to management credibility than having asked for help in problem-solving, then not to evaluate and, if acceptable, implement the ideas produced. To ensure that all accepted ideas are implemented, the project group nominated for each idea a manager responsible for implementation. Also, for each idea, the necessary resources and technical assistance were agreed with the manager, so that implementation could proceed in a timely and effective manner.

Also the plan for all implementation activities was agreed by the senior managers, avoiding any misunderstanding of the resources required, the time scale and the person responsible for implementation

Intervention Outcomes

The outcomes from six interventions that used similar process arrangements are shown in Table 1 . A brief description of the context of each intervention follows:

- The first, Oates (1976), was conducted in a manufacturing organisation in the UK.
- The second by Clapp 1991 was conducted in the UK organisation of a large multi-national oil company
- The third project, Bratu (1994), was conducted in Romania where both the social and organisational cultures were significantly different to the other five interventions. The inherent lack of trust in the Romanian culture created a hypothesis that suggested there would be minimal interest in both contributing to the project and the generation of relevant ideas. (This research formed part of a management development project sponsored by the UK government see CIMP 1992)
- The fourth project by Judge (2004) relates to work in the UK BBC organisation. The intervention targeted both a realignment of the culture of the organisation as well as a reduction in overhead expenditure.
- The fifth project by Tandon et al (2005) concerns a Christian aid organisation in the USA that provides help for children that was concerned about strategic positioning of future relief
- The sixth project relates to an airline in the USA that was at the time facing severe financial difficulties

Table 1

Results from Six Interventions

	Oates (1979)	Clapp (1991)	Bratu (1994)	Judge (2004)	Tandon et al (2005)	Ganslen (2006)
Focus of Intervention	Cost Saving	Cost Saving	Cost Saving	Cost Saving /Strategy	Strategy	Cost Saving
Intervention Target	*	40% of Corporate budget	40% of engine production department budget	50% of overhead budget	Review of Future Strategies	Save \$180 M
Study duration (weeks)	3	13	12	26	16	5
People Employed	2000	3200	50000+	28000	20000	100000
Population of Target Organisation	2000	1619	4300	17000	20000	29000
People Contributing	600	1607	62	10000	4500	11588
Number of Ideas Produced	800	2361	95	25000	*a	11588 *c
Average Ideas per Person Contributing	1.33	1.4	1.53	2.5	*a	1.0 *b
Number of Ideas Accepted	400 (50%)	1216 (51%)	58 (61%)	12500 *b	*a	*a
Average Savings for Ideas Accepted (per year)	£5.0K	£5.18K	£3.44K	£6.88K *b	*a	*a
Project Outcomes Total Savings (per year)	£2.0M	£6.0M (21%)	£0.2M	£86M (12%)	*a	\$180M
Average Idea Evaluation Time (Days)	21	39.5	60	*a	*a	*a

Note

**a Information not available*

**b Estimated Data*

**c Choice from a fix menu*

When comparing the six studies a number of marked similarities can be seen:

- A large number of people agreed to contribute to the intervention (with one exception Bratu 1994)
- the average number of ideas generated by each person contributing ranged between 1.33 and 2.3;
- the value of the ideas accepted ranged between £3.4K and £5.2K;
- the number of ideas accepted ranged between some 50% and 61% of the total number of ideas generated;
- only a small proportion of the ideas produced are individually large in value.
- The total saving in the interventions average half of the target While each idea itself is of modest value, collectively they make a significant contribution of immediate relevance

With such a large number of ideas, the most difficult task is keeping track of their progress. A standard form helps to collect data in a fixed format (idea description, author, costs, savings, evaluation, recommendations etc.) and in most cases the data was entered into a small data base to ease the location and removal of duplicate ideas and provide an accurate analysis for the reporting of progress.

Once ideas are documented, the evaluation stage of the process can be started. As most of the ideas (usually greater than 60%) are of modest value and highly relevant to the job situation, they are easily assessed by the managers within the relevant department or division of application.

The smaller number of ideas that are of higher value potentially contained larger risk and some discomfort for the organisation. They are best assessed by more senior managers.

To ensure that ideas are not rejected unnecessarily, a project team member may be included in all of the evaluation decisions. In each of the different projects shown in Fig (1), of all of the ideas evaluated, some 50% were consistently accepted for implementation and reflected similarly in the targeted financial savings.

With regard to implementation, the last activity of the project team is to make sure that the accepted ideas were made operational, many of the ideas became the responsibility of the managers. However, for the few ideas that had a considerable effect on the organisation, a senior manager or the sponsor of the intervention became responsible for both completing the evaluation and implementation of the idea.

Like all projects a regular review of progress with the sponsor is needed to ensure that all of the approved ideas are used effectively.

Conclusions

The key points derived from the results of the interventions described in this paper concern the common factors necessary to sustain the quantity and style of ideas from individuals in large organisations. Such interventions have their roots in both organisational development and cooperative inquiry (eg Heron 1988, Lewin 1946) and provide a context where:

All involved join together in a mutually acceptable framework to progress a well-defined target.

Many authors have isolated supporting factors such as Focus, Inclusiveness, Openness, Engagement and Opportunity to Contribute

In the interventions examined all levels in the organisation contributed ideas, many of which were small scale and, in Kirton's (2003) terminology, are adaptive rather than innovative. These ideas represent small improvements to the current system, however, the total number provides significant organisational savings. Such significance is often overlooked in interventions that promote organisational innovation rather than organisational creativity, the latter inclusive of both adaptive and innovative ideas.

Moreover, the more complex, highly innovative ideas are the most difficult to evaluate and implement. When implemented, this latter group of ideas can often take many adaptive adjustments before they reach their optimum, however, if successful they usually produce levels of effectiveness not attainable by the implementation of the many small ideas. Thus, while innovative ideas may be vital to the future of the organisation, survival in the shorter term may only be possible from the savings provided by implementing the many adaptive ideas.

From the point of view of the individuals involved in the interventions, if ways of minimising operational activity are found and potentially less staff are needed, then the terms and conditions that apply to any person leaving the organisation are most important and need to be acceptable both from a personal as well as organisational view point.

For other individuals, the activity of the intervention may cause some reconsideration of their role in the organisation independently of any organisational rearrangements. This is particularly noticeable in two areas:

- one where individuals are concerned for stability, but believe the intervention will be a reoccurring event (indeed they may recognise a need for even further improvement);
- the other area is where people feel that the organisation should be culturally more dynamic, and so minimise the need for extraordinary corrective actions. This latter position is re-emphasised when it is recognised that the design of this type of intervention does not specifically address the variables associated with improving the organisation's cultural orientation towards change.

With these realisations, the more change-oriented individuals will be inclined to seek other more dynamic opportunities, while the less change oriented will seek a more stable environment; members of both groups potentially leaving the organisation to work elsewhere.

While such moves may be counter to the organisations intent and while they may be of little immediate consequence, they are outside of the organisation's control. Moreover, in the longer term, the absence of such individuals is likely to limit even further the problem-solving capability of the organisation. To ensure that the organisation is not disadvantaged in this way, it is essential to have both short and long term views of the skills required. A wide diversity of thinking styles is needed if effective organisational problem-solving is to take place. Erosion of one style over

another will result in either an over-flexible or an over-rigid situation which will be far from optimum.

From the organisational point of view, the more the sponsor of the intervention is seen as a senior responsible person and the intervention a legitimate adjustment to existing arrangements, the more the organisational need is understood and the larger the number of contributors.

However, management credibility may be questioned in two quite different ways:

- the first challenge concerns a perception of management as not tackling the root cause of the problem and thus questions the effectiveness of their leadership. Excepting that strategies and policies that pre-date the problem have been ineffective, and are in need of change, the needed changes are avoided in favour of a focus on efficiency;
- the second challenge comes from a different perspective. Here, the nature of the intervention request being so different from the 'norm' is simply not believable. This is evident in the Romanian project (Bratu, 1994) where an organisational culture lacking in trust produces a norm where individual workers are not seen as contributors to management problem-solving. Thus, only those individuals with little concern for any perceived risk contributed to the project. However, the average number of ideas produced are similar to the other projects in this study. The opposite effect is seen in the BBC study by (Judge, 2004) where a supportive culture along with the more active engagement from the use of Appreciative Inquiry is seen to provide a setting for 'collective wisdom' to operate. This effect may account the improvement in the total number of ideas generated. (while there is no information presented about how many ideas were accepted it is noted that the overhead costs were reduced from 24% to 12% of revenue).

As many of the ideas implemented will affect the detailed working practises of the organisation they will only be visible to those individuals involved. In organisations where there are internal customer/supplier relationships, some customers will feel that due to the low visibility of these changes, it is possible to return to the original arrangements and forgo any saving that are involved. In such situations, where the culture remains unchanged, the internal suppliers will be pressured to conform, particularly when outside suppliers can also be used to provide such services.

Where the arrangements are more visible to the senior managers, particularly where structural changes are involved, the customer demand may be more moderate and excesses more easily resisted. However the need to repeat this form of intervention can be mitigated by changes to cultural values where clarity of and commitment to a shared vision is encouraged, including real progress towards agreed organisational objectives.

It is of note that many of these findings parallel those from TQM studies where there are similar needs for a supportive culture individual and group creativity, as well as effective use of the problem solving process.

In summary, these studies provide support for Kirton's theory that all people are creative problem-solvers given the opportunity to contribute. In order to make use of this creativity in the interventions describe managers have to provide a setting that will support and motivate individuals to focus their potential on an organisational objective of importance.

To gain maximum effect, any problem needs careful definition and the style composition of the problem-solving groups should be consistent with the required solution. Additionally, resources and information are needed to guide any contributions through a defined process that ensures no

unnecessary loss of ideas. A successful project brings two attendant issues. One concerns the individual when redundancy results from a reduction in future work activities. The other concerns the organisation where success extends the target area and challenges the credibility of both the values and vision of senior managers in the organisation. Both of these aspects may demand attention if the organisation is to learn for the future from such interventions.

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