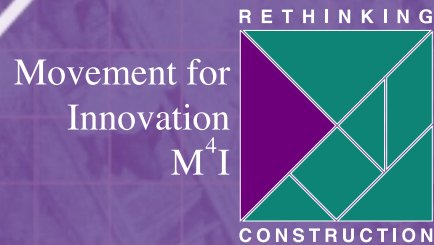


PROJECT 225



APRIL 2002

Derg team analysed

Attitude and behaviour measurements – an early warning system

Nothing in *Rethinking Construction* changes the basic traits of human nature. Going to work in construction is rarely ‘happy families’, no matter how many partnering workshops are held or team charters are signed. Man remains a fiercely competitive species. An analysis tool that measures the attitudes and behaviours of team members has been trialled in the £10m water treatment works on the River Derg, Northern Ireland. It has been a tough project but team members agree that the tool has been an invaluable aid.

The ‘cobweb’ system asks team members to score their impressions of the whole team under 13 headings. Average scores are calculated for each group in the team. Scores range from -5 to +5 (see page 2) and the ideal score is zero. Any significant variance from zero or significant differences between the groups’ scores flags a potential attitude or behaviour problem. Wide variances should be expected initially, as the team beds down. Subsequent spikes demand attention.

“In the early stages there was some scepticism from the client’s operators,” says Earth Tech’s John Kaye. “We’re not a local company and I think they were concerned that we would do the minimum necessary.” An early assessment (see diagram) indicated a reluctance by the team to innovate, underlined by a somewhat inflexible approach. The JV’s wholly positive response turned the project into an exemplar for consultation between designers, operators and constructors. “Involving the end user has been hard work but the results make it worthwhile,” confirms Adrian McCormick of project managers Ferguson McIlveen.

How the team has got on

Predictability – Allowing for variations in the scope of work, the project is being handed over in early 2002 within the budget and programme. Historically, some similar Water Service projects have run 10–20% over programme and similarly over budget. “The real innovation is that we’ve moved away from our contractual positions and worked together as a team to achieve our shared objectives,” explains McCormick.

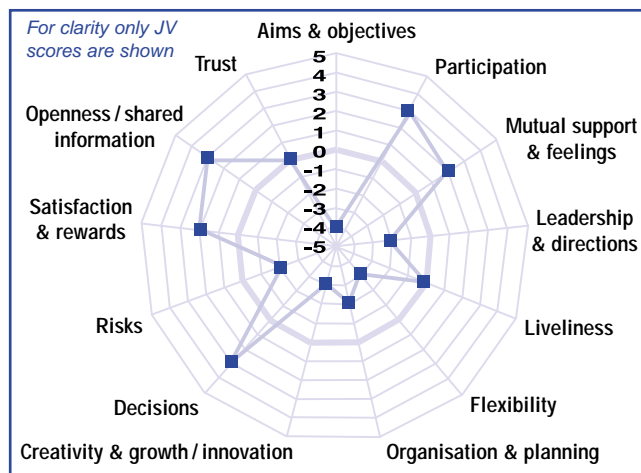
Defects – Snagging is contractor-led and results so far indicate that they will be delivering a defect-free product. Operations staff are involved in signing off deliverables. “The end user is both surprised and delighted to be

CASE HISTORY



“Involving the end user has been hard work but the results make it worthwhile.”

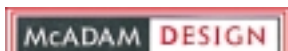
Adrian McCormick, Ferguson McIlveen



Early attitude and behaviour measurements in Team Derg

involved. We encourage operations staff to visit the project often and take ownership,” says client’s representative Emer Murnaghan.

Profits – The contractor and project manager are confident they will achieve their modest targets. According to David Craigan of Farrans: “The potential to lose money on other jobs is considerable, but the partnered team enabled us to manage risks.”



CREDITS

Client and Operator – Water Service
Project Manager – Ferguson McIlveen
Joint Venture Contractors – Earth Tech Engineering Ltd and Farrans (Construction) Ltd
Designers – McAdam Design

Derg team analysed

The challenge

Water Service was already *Rethinking Construction* in its acclaimed £32m Aquarius Mourne pipeline and pumping station. The idea at Derg was to unleash the potential of project partnering in a new water treatment plant involving joint venture contractors who had current Water Service project experience.

The solution

The core team was assembled with key client, operations, project manager, and joint venture personnel participating in facilitator-led partnering workshops. This is now industry best practice. In a separate initiative, a team member introduced the attitude and behaviour assessment to monthly team meetings, having learned about it on a previous project. It is an adaptation of the Bernstein cobweb method.

How it is measured

Worksheets suggest key words that describe extreme attitudes and behaviours. Each heading can be scored in the range -5 to +5 according to how individuals perceive the team's behaviour using these criteria. The scores are then averaged for each group within the partnering team.

-5	0	+5
<i>Unclear, conflicting</i>	Aims and objectives	<i>Over ambitious</i>
<i>Too few contribute</i>	Participation	<i>Battle for attention</i>
<i>Feelings ignored</i>	Mutual support and feelings	<i>Concern for people at expense of task</i>
<i>Vacuum</i>	Leadership and direction	<i>Power struggle</i>
<i>Flat</i>	Liveliness	<i>Flippant</i>
<i>Pedantic</i>	Flexibility	<i>Indifferent</i>
<i>Muddle</i>	Organisation and planning	<i>Excessive detail</i>
<i>In a rut</i>	Creativity and growth / innovation	<i>Too many ideas</i>
<i>Fudging</i>	Decisions	<i>Forced</i>
<i>Risk loving</i>	Risks	<i>Risk averse</i>
<i>Not sure what is achieved</i>	Satisfaction and rewards	<i>Too busy to recognise success</i>
<i>Hidden</i>	Openness / shared information	<i>No big picture</i>
<i>Suspicion</i>	Trust	<i>Naivety</i>

Future developments

It is hoped that the team will proceed to a similar project and continue the work they started at the Derg. They have ideas on how to improve the tool next time.

Innovation case history

This case history is a snapshot of just one innovation making construction in the UK more profitable for the supply chain and the Client. Further details will be found in the Knowledge Exchange or you should contact the Innovator directly or M4I.

How to apply this innovation

Experience from the Derg project:

- *Early resourcing of partnering initiatives is essential*
- *Use tools like the one used in Derg to measure indicators of attitude and behaviour*
- *Analyse the results to identify issues that are hindering project success*
- *Don't let attitude and behaviour problems fester – empower the team to resolve their differences*
- *Appoint a partnering coordinator to ensure agreed actions are taken*
- *Induct new team members in the team's culture*
- *No matter what skeleton looks like, it has to come out of the closet... and the sooner the better!*

Contact

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Reference

Bernstein cobweb method: *Principles of Corporate Communication* by Cees B M van Riel, Prentice Hall, 1995.

Related Topics



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The M4I Strategy Model applied to this innovation

