

research results

Breakthrough: High-Performance Strategies for Knowledge WorkersSM

Industry

Oil and Natural Gas Exploration and Production

Organization

Shell U.K. Exploration and Production
Shell Mex House, Strand, London, England

Need

The Information Systems Group of Shell U.K. Exploration and Production (Expro IS) formed a team to improve the quality and efficiency of relationships within Expro IS, between Expro IS and other groups at Shell, and with third-party contractors. This team, called the “New Partnerships Team,” is charged with improving services and efficiencies between Expro IS and the other groups; these improvements are expected to result in savings of several million pounds between 1997 and 2000.

Recent culture change initiatives at Shell led to the formation of the New Partnerships Team (NPT), and the new empowerment culture gave them the freedom and autonomy necessary to pursue their

team mission. Working with DDI consultants, the Expro IS Coach Team (leadership team) identified several areas in which skill and strategy improvements were needed before service and efficiency improvements could be realized. These areas included:

- Clarifying and confirming desired objectives prior to starting tasks.
- Objectively assessing individual ability to contribute to team tasks within set parameters.
- Formulating and communicating plans to achieve outcomes; gaining commitment from others.
- Demonstrating marked commitment to achieving team objectives on time.
- Proactively reporting progress and addressing problems.
- Pursuing improvement through joint positive challenge.
- Demonstrating an understanding of the big picture—understanding the customer’s perspective and actively promoting this to the team.
- Demonstrating other effective team skills by:
 - Drawing upon a personal network of contacts.
 - Proactively offering to help others when needed.
 - Sharing information when needed.
 - Listening to and being receptive to the concerns and suggestions of others.

To learn more, call your local DDI office or contact:

The Americas 412.257.0600	Southeast Asia.... 65.339.5255	France..... 33.1.41.96.86.86	United Kingdom 44.1628.810800
Toll-free Canada... 800.668.7971	Australia..... 61.2.9466.0300	Germany 49.2159.91680	E-mailinfo@ddiworld.com
Toll-free U.S. 800.933.4463	Greater China 852.2526.1188	New Zealand ... 64.9.377.6742	Webwww.ddiworld.com

DDI and Shell Expro IS decided that Breakthrough: High Performance Strategies for Knowledge WorkersSM would meet the NPT's needs. BreakthroughSM was chosen because it develops critical work skills and then gives knowledge workers the change to apply their learning—real time—to problems and issues. Each of the critical behavior areas in which improvements were needed is addressed by one or more of the specific high-performance strategies targeted in Breakthrough. Expro wanted to see immediate impact from NPT's participation in Breakthrough before engaging the other 90 Expro IS employees in the program. In order to gauge the benefits gained from the program, the following research study was designed specifically for the Expro IS Breakthrough implementation.

Research

Breakthrough was implemented in six sessions, preceded by a half-day orientation session. Twelve engineers from the NPT participated in the program. Participants, their managers, and a non-trained control (comparison) group each provided survey data for the research component of the implementation.

Behavioral measures

Participants were presented with a list of 40 specific behaviors reflecting the desired behaviors detailed in the Business Need section. Team members rated themselves on each specific behavior, along a seven-point scale, in two ways:

- How **often** do you perform each of the behaviors? (7 = Nearly Always; 1 = Almost Never)
- How **effectively** do you perform each of the behaviors? (7 = Extremely; 1 = Not at all)

Participants rated themselves on these behaviors two weeks prior to the Breakthrough orientation session. A second set of ratings was collected between two and four months following the completion of the final Breakthrough session. In addition, managers also rated the participants on these behaviors both before and after the program.

A control, or comparison, group also rated their own performance on these behaviors both before and after the Breakthrough program. These individuals were also members of the Expro IS group, but they did not participate in the program.

Impact ratings

Several weeks after the program's completion, managers also rated the impact of Breakthrough on various individual and organizational success indicators, including bottom-line impact. These indicators are detailed in the Results section.

Development environment

Recognizing the importance of a supportive environment for development success, Expro IS also measured participant's motivation and perceptions about their work and development environment. Again, these specific measures are presented in the Results section.

Results

Return on Investment Analysis

A return on investment of nearly £ 70,000 (pounds Sterling) over the next four years

Expro IS can anticipate a return of £ 66,740 on their Breakthrough investment in the four years following completion of the program. This figure was calculated from a utility analysis that accounts for numerous program-related costs and benefits including:

- Number of program participants
- Program costs (materials, delivery, etc.)
- Corporate tax information
- Expected annual return on expenditure
- Average salary of participants
- Performance improvement due to training
- Expected payoffs per year

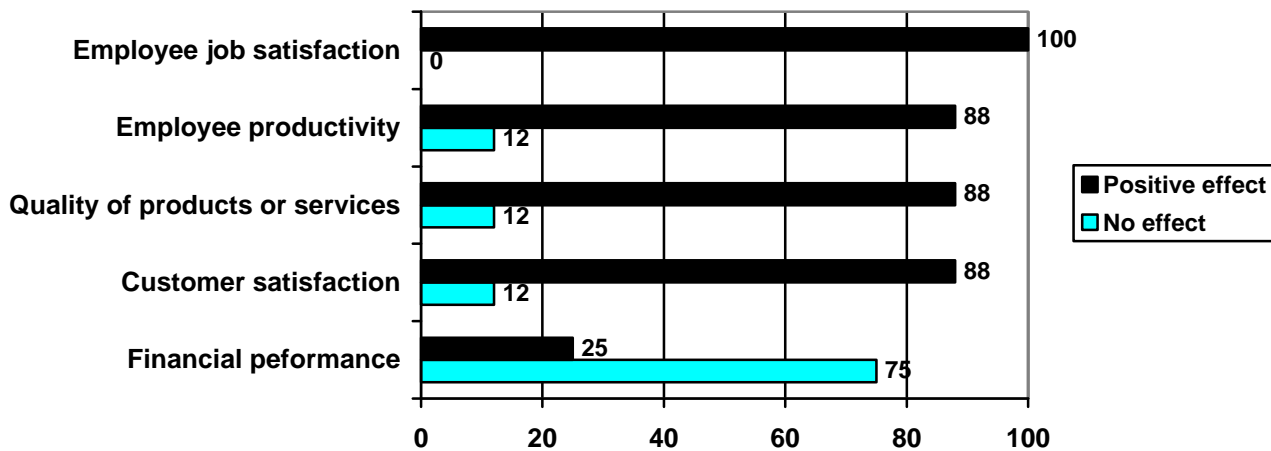
Given the program costs, the return is quite large, approximately 1000%. Further benefits may be expected beyond four years, but potential turnover and changes in the team make these benefits difficult to accurately estimate.

Impact of Breakthrough

Managers report significant positive impact on several bottom-line indicators.

As shown in Figure 1, managers report observed, or anticipated, program impact on several organizational success indicators. All of the managers feel that Breakthrough has positively impacted job satisfaction, and nearly all report impact on productivity, quality, and customer satisfaction. Only 25 percent feel that Breakthrough has impacted financial performance at this point. However, this perception may change over time as the benefits of the program are further realized.

Figure 1. Manager ratings of Breakthrough's impact on bottom-line indicators*



* Managers were given the option of reporting "negative effect". This response option was not endorsed for any of the indicators.

Expro IS managers rate Breakthrough as highly relevant for the target group.

Managers of the participants feel that Breakthrough is very appropriate for the Expro IS group (see Figure 2). They are also confident in the program’s ability to produce behavior change that will positively impact Expro IS. Again, “high” ratings of the program’s overall effectiveness may increase over time as the program’s benefits are further demonstrated.

Figure 2. Manager ratings of Breakthrough implementation at Expro IS* (table)

	High	Moderate
Relevance of Breakthrough for the Expro group	88%	12%
Participant satisfaction with the Breakthrough program	37%	63%
Ability of Breakthrough to produce behavior change	37%	63%
Overall effectiveness of Breakthrough	25%	75%

* Managers were given the option of responding “low”; this response option was not endorsed for any of the indicators.

Behavior Change

Participants report increased performance in each of the behaviors targeted by the program.

Figure 3. Percent increase in number of participants and control group reporting effective performance*

Behavior	Participant	Control
Commitment to team objectives	43%	0%
Communicate plans and ensure commitment	35%	0%
Contribute to team tasks within time scale	32%	0%
Confirm/clarify objectives	27%	8%
Proactively report progress	27%	0%
Pursue improvement through challenge	25%	7%
Receptive to concerns/ suggestions of others	18%	10%
Share information when needed	16%	0%
Proactively help others	12%	0%
Draw upon personal network	5%	0%
Big picture perspective/ customer focus	5%	0%

* Percent reporting effective, very effective, or extremely effective performance

Clearly, the participating engineers feel that the program positively impacted their performance, as shown in Figure 3. The number of participants reporting effective performance increased for each of the critical target behaviors detailed earlier. The number of effective performers increased by an **average** of nearly 25 percent across all of the behaviors. Increases were particularly high among the team-focused behaviors. These increases will be critical to helping the NPT form a strong team foundation from which they can efficiently serve other groups and customers.

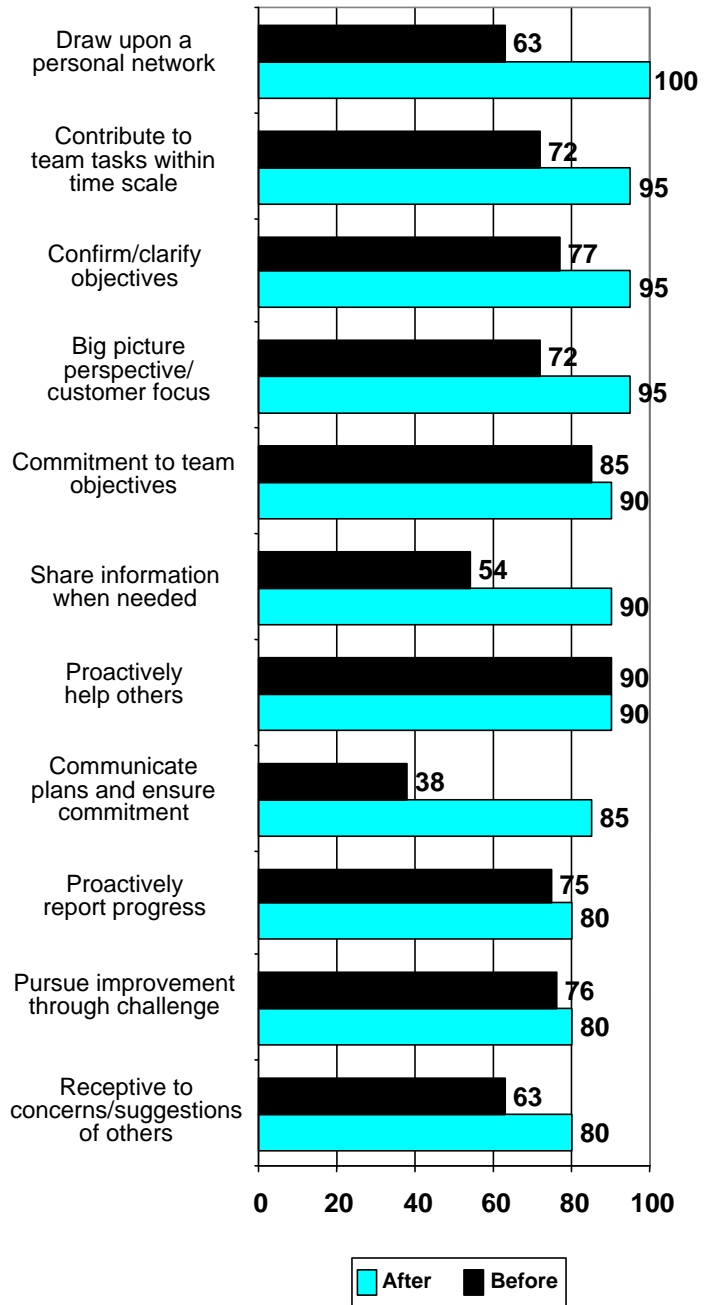
In contrast to the participants, the engineers from the control group reported little to no increase in the effectiveness of their performance. Increases were observed for only three of the behaviors and these increases were minimal.

Participants also increased the frequency with which the behaviors are performed. The number of participants performing the critical behaviors frequently (often, very often, or nearly always) increased by an average of 25 percent. In contrast, the average increase among the control group was 1 percent.

Managers report increases in participant effectiveness across each of the target behaviors.

As shown in Figure 4, manager ratings of increases in effective behavior mirror those of the participants themselves. The participants’ managers reported an average increase of 23 percent across the behaviors. According to these managers, a minimum of 80 percent of the participants performs each behavior effectively or better since completing the program. Only two of the behaviors received this degree of effectiveness rating prior to the program.

Figure 4. Percent of managers reporting effective performance both before and after Breakthrough*



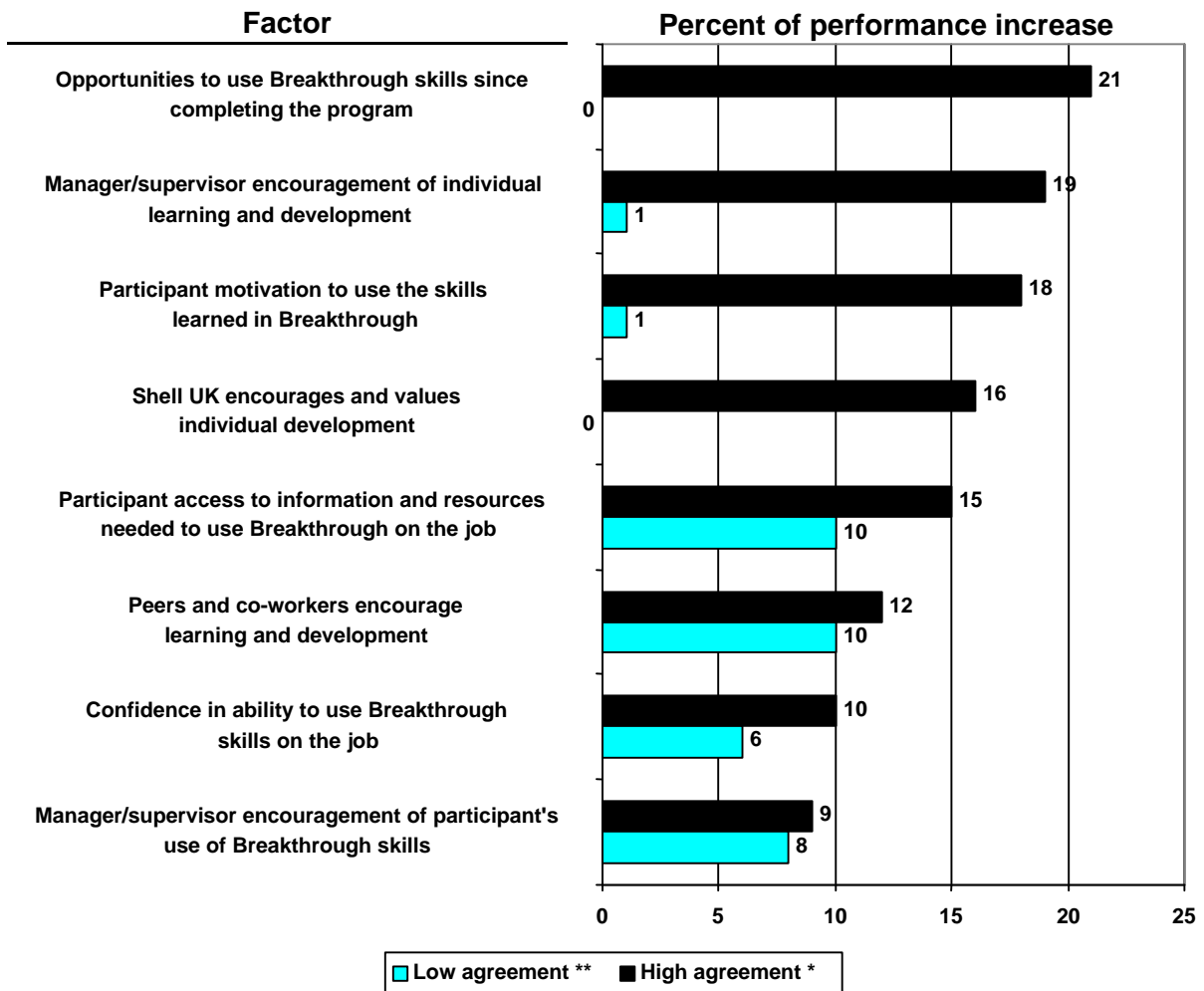
* Percent reporting effective, very effective, or extremely effective performance.

Motivation, confidence, and a supportive work environment enhance performance.

Participants were asked to indicate their agreement to statements describing their motivation and confidence in using skills learned in Breakthrough and supportive qualities of their work environment. Figure 5 clearly demonstrates that these factors are critical to increased performance effectiveness following the program. Improvements in

performance are much greater for those engineers who have opportunities to use Breakthrough skills on the job, are motivated to use these skills, and are also encouraged by their manager or supervisor to use Breakthrough on the job. Improvements are also much greater when participants believe that their learning and development are supported by Expro IS and also by their peers. The average performance increase is less than 5 percent for individuals who feel that these factors are lacking.

Figure 5. Percent increase in overall performance according to the presence of positive individual and work environment factors



Conclusion

Clearly, the engineers from the New Partnerships Team within Expro IS gained a great deal from the Breakthrough program. Since completing the program, they are performing critical team skills both more often and more effectively. These improvements have also been recognized by their managers.

The managers also recognize Breakthrough's impact on several bottom-line indicators. This impact is further underscored by the return-on-investment utility analysis, which estimates a significant financial return for Expro's investment in the program.

Finally, the value of a supportive work and development environment is clearly seen in the participant's ratings. When supported by their manager, peers, and the organization, the program participants reaped maximum benefit from the Breakthrough experience.