Bywater EXCEL

Problem Solving

An Industry-wide skill gap?

Problem solving has always been a key criteria for the automotive industry, so when Deloitte published their report 'Quality 20:20', highlighting the industry's concern over a lack of confidence in problem solving skills, we wondered whether other industries were experiencing similar concerns.

A Skills Gap Identified

The 'Quality 20:20' report[1] was a summary of discussions into the strategic priorities for vehicle manufacturers and their suppliers held by the Automotive Industry Action Group (AIAG), where OEMs and suppliers identified inadequate 'Problem Solving Skills' as one of the most significant barriers to sustainable quality improvement, future growth and long-term profitability.

The report highlighted four reasons for problem solving capabilities being inadequate:

- *Lack of root cause analysis*
- *Management/organisational culture*
- *Feeling rushed* – the pressure of 'unrealistic' delivery dates
- *Jumping to the solution*

A survey by Grant Thornton[2] found that 55% of respondents stated that the lack of soft skills – communication, critical thinking and problem solving abilities – was the most significant challenge to recruiting appropriate employees into the finance sector.

A number of industry leaders are raising problem solving as a skill gap. John Cridland, CBI Director-General said "We're facing a critical lack of skills in some key industries, just as the economy starts to pick up."[3]

Why is it Important?

The importance of 'Problem Solving' and the 'Continuous Improvement Process' has been recognised by quality improvement experts and management gurus – such as Crosby and Deming - for many years. Automotive OEMs and suppliers believe that problem solving is important because:

"it impacts the organisation's ability to manage, monitor, and respond to quality-related events; their ability to implement operational efficiencies; and brand and customer relationships."

Problem solving is not limited to the perspective of design, innovation and creativity (proactive problem solving[4]), but spans into the more reactive problem solving[4] of troubleshooting as well as the evaluation or impact assessment of technological solutions.

'Soft' skills such as problem solving and critical thinking have been identified as crucial competencies as companies face the pressure of needing to understand the implications of constantly shifting standards, changing regulations and the explosive growth in technological advances.

With the current speed of technological change and the volatility of global economic activity within developed and emerging markets, problems are increasingly complex. Taking the approach to solve difficult problems using a number of different tools simultaneously may have become more valuable than ever before. The number of variables at play can be huge and as free-flowing and accessible information encourages competition, there is a high demand for developing innovative, unique solutions to complex problems. With such high stakes being placed on industry, addressing this skill gap has to be a priority for organisations.

Route Cause – Education or Corporate Culture?

Why do today's managers continue to complain about 'inadequate problem solving skills' in their organisations, when the tools and techniques required are well documented and freely available?

Education

An Education and Skills survey[3] reported that 55% of responders thought that school leavers lacked the right work experience and key attributes that set them up for success, including problem solving (41%), stressing the need for students to be "rounded and grounded" as well as academically proficient.

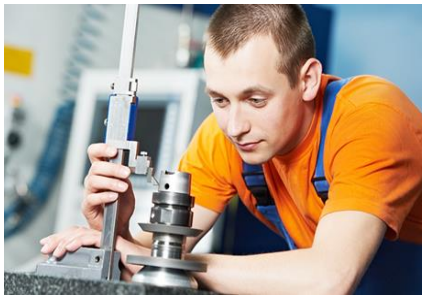
The ability to analyse, synthesise and evaluate – critical thinking – is essential to the success of problem solving and therefore the development of a competitive work force. Is this more abstract thinking given sufficient emphasis – and reward - within the current education system? Joseph McCade[5] suggests that students who are encouraged to take control of their own learning will be much more likely to develop a broad focused approach to problem solving.

Corporate Culture

Scot Sharland of the AIAG believes that the shortfall in problem solving capabilities and problem prevention is "more cultural than technical in nature - namely, discipline."[1] Has the cultural attitude slipped into fire-fighting mode - fixing problems as they arise, rather than problem prevention - employing a deeper

analysis to prevent the problem in the first place or at least to prevent a repeat of it?

In the real world of industrial production and management, effective problem solving remains the exception rather than the rule, as we tolerate, and perhaps encourage, 'short-term fixes' rather than grappling with the underlying causes of our current difficulties.



Why do expensive management initiatives consistently fail to deliver the promised improvements?

Phil Stunell[6], tutor for BywaterExcel, suggests three key issues which have contributed to the erosion of the problem solving culture within organisations:

- *Complacency*
  A small engineering company were resigned to accepting that Zero Defects were unattainable because there were "too many variables in the process". Further investigation revealed that 15-20% of departmental capacity was being consumed by 'scrap and rework' with an estimated cost of £8,000/month. Organisations need to challenge the complacency that accepts 'failure as normal'.

- *Lack of Ownership*
  Management and staff alike must take ownership of the problems encountered at all levels of the organisation, striking an appropriate balance between delegation and micro-management. Different styles of management could make it difficult for problem solvers to question the way things are being done, or suggest improvements that may prevent chronic and recurring failures.

  Problem solvers must be given the freedom to question, and ultimately improve, the instructions embedded in the systems and processes. The new requirements within ISO 9001:2015 have placed a much greater emphasis on top management's accountability and responsibility, helping to drive ownership of processes and failures.

- *Barriers to learning*
  Competitive pressures can result in industry struggling to provide resources and time for learning. Management culture can also limit learning opportunities if there is a 'command and control' environment or a resistance to change. Allowing people to identify 'failure patterns' in a non-blame environment in order to discover causes of failure, and for people to understand how their actions impact product quality and process performance, will help organisations with knowledge sharing and retention.

Filling the Gap

Deloitte's 'Quality 20:20' report stated that more than half of respondents felt there was a "*significant risk* if no action is taken to close the gap between where the industry is today versus where the industry should be in problem solving."

There are many good problem solving models available which are instrumental in helping us to understand the process of problem solving. The challenge for industry is to not only provide the resources for employees to gain and develop their knowledge in this area, but to also provide them with the opportunities and encouraging environment to *apply* this knowledge in practice.

Learn how you can embed problem solving into your business culture with BywaterExcel's:

- Problem Solving Tools & Techniques – 5 Why's & FTA (I-day course)
- Practical Problem Solving & RCA using 8D/G8D (2-day course – in-house only)

In addition, BywaterExcel's Failure Mode & Effects Analysis course explores this powerful technique that enables companies to reduce product liability risk by anticipating and preventing defects in design and manufacture.

Select dates and book online at www.bywater.co.uk

Call our Training Team on 0333 123 9001

Email us at training@bywaterexcel.co.uk

References:

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