

Quantity, not quality equals better results

More emphasis on divergent thinking

The title almost conflicts with logic as one might assume that best results are achieved through qualitative thinking. Yet research and personal practical experience continually and increasingly demonstrates that the opposite is true. The best design results are achieved through quantitative thinking.

In their book *Art & Fear: Observations On the Perils (and Rewards) of Artmaking*, David Bayles and Ted Orland reveal a story about a ceramics teacher who divided a class into two halves instructing one group that their grades would be dependent upon quantity, so they should aim to produce as many ceramics as they can. The other group were told that they would be graded on one good piece of work. The observations were that whilst the quantity group busily churned out piles of work (and learning from their mistakes) the quality group sat theorising about perfection and had little to show for their efforts.

It does seem to make sense that if we are in an early design or solution development stage the more ideas and concepts that we can generate the more likely we are to find the best design or solution. The bigger the pool of ideas and concepts the more likely it is to contain the winner. Yet the evidence is that a majority of engineers involved in design and problem solving say that they would benefit immensely by exploring more design alternatives during concept design (in a survey conducted by PTC, a leading provider of technology solutions, the figure was 92%). Often, lack of time is cited as the main reason why this doesn't happen, although I have alternative views on this.

The impact of investing time and efficient thinking tools and processes early in a design stage can be staggering. Not too long ago I was involved in an extremely high priority £1.7bn project where circa 90% of the design work had been completed. As the client closed in on the implementation phase it was decided that the current designs should be challenged in case there was a lower cost and faster way of delivering the solution to what was a critical project. A small team was assembled, and some systematic thinking tools and processes were introduced and applied. In a matter of weeks, the net result was that from the vast pool of ideas, concepts and alternatives a new design was carefully identified and selected. This new design would deliver all the required functionality and benefits whilst reducing the total cost by approximately £1bn and bring the commissioning date forward by 3 years. A jaw dropping result and in hindsight (which incidentally, I personally find a difficult thing to live with!) it would have made far more sense to have invested more up front in order to have identified the best solution.

I have argued for a very long time that insufficient emphasis is placed on the need for divergent thinking when ideas, concepts and/or solutions are required, and whilst the benefits of this may seem obvious, making it happen is somewhat more challenging, though very feasible.

Perhaps it is time for designers and solution developers to be recognised and rewarded for the *number* of concepts, ideas and solutions they produce rather than for their quality.

About us

Passionate about thinking efficiency and productivity

We help people do their best thinking. Evolving from a 25 year background in Management Consultancy, we have developed and refined a powerful set of systematic thinking tools and processes and combine these with a unique understanding of individual and group behaviours that when 'managed' enable others to achieve outstanding results.

We work globally and across a wide spectrum of industries supporting endeavours such as innovation, creativity and problem solving (including those of a ridiculously technical nature).

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