

Performance Incentives, Divergent Thinking, Training, and Creative Problem Solving

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To Boost Creative Thinking, Add Training to Incentives

Businesses looking to elevate levels of creative thinking among employees might want to consider providing divergent thinking training in addition to monetary incentives.

Divergent thinking tactics involve coming up with more unconventional and innovative ideas and multiple potential solutions.

A new study looking at the effects of different incentives (flat wages, piece-rate pay, and public recognition) when paired with creativity training found that divergent thinking workshops clearly helped employee work performance, such as their efficiency, motivation, levels of effort, and abilities to 'think outside the box'.

Incentives are generally believed to promote attentiveness and motivation in one's work. Previous research has suggested that some incentives may only promote the application of convergent thinking techniques -- a more logical and traditional problem-solving approach. A theory by Cropley (2006) put forth that combining offers of incentives as well as creativity training for employees pushes them to apply divergent thinking. This idea was the basis of the study.

The Experiment

The researcher, Kun Huo of the Ivey Business School at Western University, observed the performance of 120 undergraduate volunteers who were tasked with solving a set of insight problems. These problems ranged in difficulty and required innovative yet practical solutions. Participants knew they would be compensated with one of three different pay incentives: either flat wage, piece-rate pay, or flat wage plus public recognition. They were randomly assigned to either a divergent thinking training program or to an introductory practice task (with no creativity training) before their test session. Performance was measured by the number of insight problems solved under time constraints.

Results

None of the incentives on their own directly increased creative problem-solving.

While participants working for flat-wage incentives performed better compared to those working for piece-rate pay, it was the participants who also received divergent thinking training who were most productive. On its own, piece-rate pay resulted in lower productivity, but performance improved with creativity training. Receiving a flat wage plus public recognition was also found to improve performance when participants had creativity training.

Results clearly demonstrated that combining incentives with creativity training led to better results on participant work performance, increasing their levels of divergent thinking in solving problems. Interestingly, the solutions participants

provided to their assigned insight problems showed that divergent thinking training even helped people to leverage convergent thinking processes to greater effect.

Implications

The research notes that simply implementing incentives may not be enough to improve employee performance. One possible reason? Incentives tend to direct employee effort into convergent thinking, and on their own don't encourage workers to apply creative thinking techniques. It is common for many companies to use piece-rate pay as encouragement for employees, but it may not be as effective as is generally believed -- in this study, at least, it appears to have led to more cautious solutions, although adding creativity training improved its efficacy. Non-monetary incentives such as public recognition can be useful to encourage a balance between divergent and convergent thinking where training is also involved. However, incentives that promote convergent thinking may be more useful for businesses looking to find solutions for assignments with more defined constraints (such as budgets or requirements to meet). As such, companies should also consider the use of incentives and divergent creativity training based on the kinds of tasks being assigned to employees. This is an area ripe for future research.

Any questions? Please contact the author: Kun Huo at khuo@ivey.ca