

When Less is More: The Benefit of Partial Relative Performance Information on Creative Problem-Solving Performance

How to spark creative problem-solving with performance information

Identifying and recognizing top performers, particularly those in a large work group, can motivate employees to be more creative and efficient in their problem-solving abilities, according to a recent study.

Relative performance information (RPI) is a non-monetary incentive in which either employee performance rankings are made available in the workplace, or public recognition is given to the top-performing individuals. A firm or business might partly implement RPI, by recognizing only its highest-ranking employees, or it might fully implement RPI, by sharing everyone's performance.

The aim of the researchers – Leslie Berger of the Lazaridis School of Business and Economics at Wilfrid Laurier University, and Kun Huo of the Ivey Business School at Western University -- was to examine how different levels of RPI (partial, full) and even its absence affects employee performance.

Specifically, they looked at workers' ability to apply convergent thinking (i.e., traditional logical problem-solving) in the early stages of creative problem-solving. Further, they assessed how the parameters of partial RPI versus full RPI affected performance when an employee pool changes from small to large.

The experiment

The authors recruited 134 undergraduate volunteers to solve a series of insight problems, all of which were intentionally designed to lead individuals to fixate on a specific facet of a problem. Participants worked individually, but were put in one of 10 different experimental groups that were randomly assigned to either receive partial performance information, full performance information, or none.

Each participant was scored on how many insight problems he or she solved correctly, as well as the number of potential solutions they came up with before submitting a final answer. Convergent thinking was determined by how adequately a potential solution addressed the problem's constraints. To assess the effect of RPI on their work performance, participants were provided with RPI twice: initially after the first half of the problems were completed, and after they completed the second half. The experiment was repeated with 108 of the same volunteers, to compare the impacts of partial versus full RPI in small and large groups.

Results

Providing partial RPI (i.e., naming the top third of performers), particularly for a large group of participants, resulted in better work performance and improved convergent thinking, compared to when full RPI was provided for either sized groups. Where full RPI was provided, and in small groups where higher versus lower performance was more obvious, participants spent more time working on their assigned tasks. This suggested they felt pressure to come up with better solutions to achieve higher rank, but at the expense of efficiency. In the cases where no RPI was provided, work performance was found to be worse than that under partial RPI. The researchers attribute this to the absence of a motivator. Partial RPI is believed to provide all employees the benefit of performance feedback, via observing top workers.

Both full and no RPI had similar outcomes on performance, which might come as a surprise to companies that publicize employee performance rankings in the workplace. The results also suggested that where partial RPI is provided, employees, especially under-performing individuals, may feel they can "hide in the crowd" in large groups.

Implications

These findings support the idea that the type of RPI published in the workplace can affect employees' ability to apply convergent thinking in the early stages of creative problem-solving. Greater disclosure of RPI can harm creative problem-solving, by potentially leading employees to focus on how their personal ranking compares to that of their colleagues, rather than on the task at hand. By identifying simply the top performers, businesses can improve conditions for creative thinking -- all employees appear to be motivated to "up their game" for recognition.

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