

Feedback and goal-setting shown to improve attention

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For individuals to sustain their attention on a task over a long period of time, goal-setting is effective but receiving feedback produces a much stronger effect, according to a new study from The University of Texas at Arlington.



"Sustaining one's attention is notoriously difficult. The longer that an individual performs a task, the worse their performance tends to be," said Matthew Robison, UT Arlington assistant professor of psychology and first author of the study. "If you want to encourage people to maintain focus on a task, whether it be learning or job-related, or if you are designing something that you want people to engage with, giving feedback about their performance is a very powerful motivator."

The study, titled "Examining the effects of goal-setting, feedback, and incentives on sustained attention," was published in the *Journal of Experimental Psychology: Human Perception and Performance*.

Across four experiments, researchers gave individuals a simple but attentionally demanding task and asked them to perform it for 30 minutes. They measured the effectiveness of goal-setting, feedback and incentive manipulations on participants' ability to sustain their attention. Participants provided commentary about their levels of motivation and alertness and disclosed the status of their attention as on-task, wandering or absent.

In the first experiment, the researchers found that setting a specific goal improved sustained attention but produced no effect on task engagement (higher motivation and fewer task-unrelated thoughts).

In the second experiment, they split the performance time into blocks and provided feedback at the end of each. The data offered convincing evidence that combining a specific goal with feedback improved attention and motivation. Additionally, on its own, feedback was an impressive regulator of task-unrelated thoughts.

The study found little proof that incentives, such as a cash bonus or <u>early</u> <u>release</u> from the experiment, increased task engagement or performance compared to the effects of goals and/or feedback.



In all experiments, the researchers witnessed a decline in performance over time, with participants reporting that they felt less motivation, more fatigue and increased mind wandering.

"Even in conditions when people report feeling motivated and engaged, it is difficult to maintain optimal performance, especially if the <u>task</u> is attentionally demanding," Robison said.

Leaders should be aware of the limitations of the human cognitive system to perform monotonous tasks over long periods of time, Robison said. Jobs such as lifeguarding, TSA screening or radar monitoring, where important events are rare but nonetheless require vigilance, may push an individual's attention beyond its limits.

"We need to be cognizant of the level of difficulty involved in sustaining attention when we ask others to perform tasks where they must be attentive for long periods of time," Robison said. "It is possible that we put ourselves in harm's way by relying too much on the human attentional system to accomplish feats that may not be achievable."

More information: Robison, M. K. et al, Examining the effects of goal-setting, feedback, and incentives on sustained attention, *Journal of Experimental Psychology: Human Perception and Performance* (2021). doi.org/10.1037/xhp0000926

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