

# New research reveals mentally demanding tasks are more difficult to handle at home

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A new study looking at skills in online chess tournaments from Rotterdam School of Management, Erasmus University (RSM) shows that working from home could be damaging for mentally demanding tasks.

Working from home, whilst doing complicated tasks and detailed thinking might have adverse effects on doing cognitive tasks, according to research using chess players from Dr Dainis Zegners, Assistant Professor in the department of Technology and Operations Management at Rotterdam School of Management, Erasmus University (RSM), Dr Zegners and his co-researchers from Maastricht University Dr Steffen Künn and Dr Christian Seel.

The researchers measured the effect of working at home using world-class professional chess players taking part in an online tournament from their homes. Their results give food for thought for managers and their teams who are still adjusting to the new normal of much more long-term working from home.

When live events were prohibited during the recent COVID-19 pandemic, chess tournaments were instead held online. The researchers used the online chess tournaments to assess the impact of moving tasks normally done offline into an online setting. They assessed the quality of chess moves and associated errors using Artificial Intelligence (AI) in the form of a powerful chess engine called Stockfish.

The research concludes that mentally demanding tasks are more difficult to handle at home than when physically present at a workplace. Based on the chess players' performances, excessive use of homeworking can hurt productivity, the three researchers believe.

According to Dr Dainis Zegners

"Chess is, in many ways, is similar to the work of the knowledge society's office workplaces: the game is strategic, analytical and takes place under time pressure. Cognitive skills used in chess are also used for complicated tasks and strategic decision making such as drafting a legal contract, preparing a tender document or managerial decisions – the kind of tasks that require clear and precise thinking.

"We're not saying that people should not work from home. Especially during the current pandemic, allowing employees to work-from-home can be crucial to limit the spread of the virus. However, our results show that there can be a drop in productivity for cognitively demanding tasks that needs to be accounted for."

Their results are published in the working paper Cognitive Performance in the Home Office - Evidence from Professional Chess.

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For more information, a copy of the research paper, or to speak to the researchers, contact Kate Mowbray at BlueSky PR on [Kate@bluesky-pr.com](mailto:Kate@bluesky-pr.com) or call +44 710022871