

The Science Behind Team Cognitive Load

and

Why It Matters for Engaged Teams

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44% of full-time
employees experience
burnout



Source:

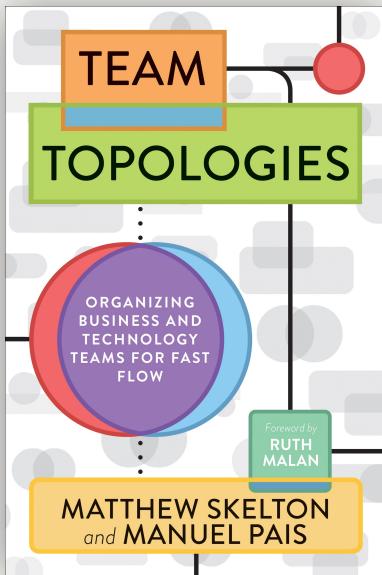
<https://www.cio.com/article/657960/burnout-an-it-epidemic-in-the-making.html>

\$322 Billion

Employers global cost, per year, due to burnout.

Source: <https://www.gallup.com/workplace/215924/well-being.aspx>

#1 question since Team Topologies was published



How can we measure Team Cognitive Load?

Free for teams



Teamperature

Managing cognitive load
for healthier teams

teamperature.com

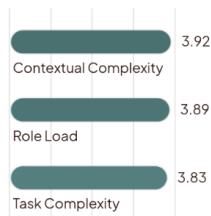
Assess → Contextualize Results → Act → Assess

Assessment results About the results FAQ

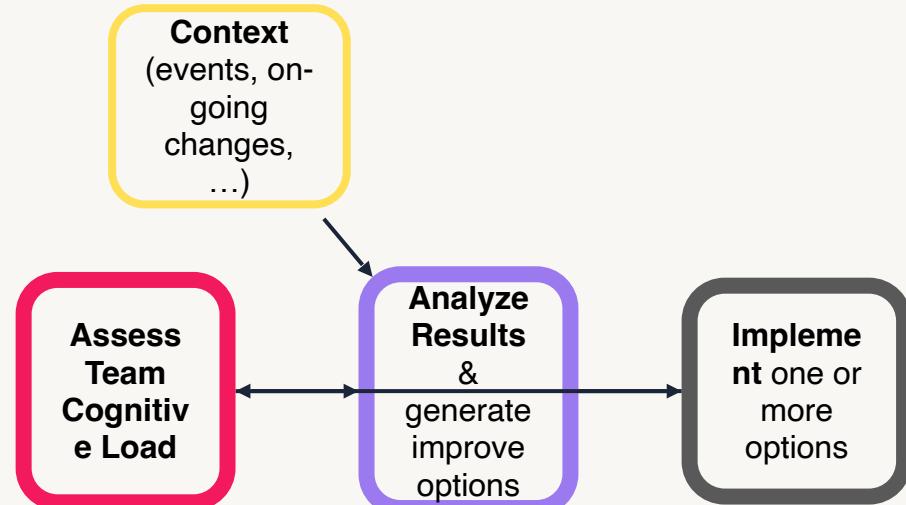
Quick summary

In this assessment, 4 different Team Cognitive Load drivers ⓘ were found to be strongly influencing the team's cognitive load. Given this is an unusual number of highest drivers, the team probably should **invest the time now to understand** their environment and map out potential causes for their highest drivers.

If most of the drivers are coming from the same Cluster ⓘ (as detailed in the next section) that might be a good



| Driver | Score |
|-----------------------|-------|
| Contextual Complexity | 3.92 |
| Role Load | 3.89 |
| Task Complexity | 3.83 |





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PhD in Organisational Psychology*

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Future of Work thought leader

*Former national boxing champion and
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"This work feels pointless"

"Why do I have to do it like *this*?"

"Requirements keep changing!"

"Can I speak up about this issue?"

"We are talking past each other!"

"I feel like I'm walking on eggshells."

"Can I ask for help?"

"Why can't I think straight?"

"I feel misunderstood."

"It's too noisy!"

"I'm not appreciated here."

"This st*pid tool is not working!"

"I feel paralyzed by all these tasks."

"Why does everything take so long?"

"My brain is fried"

"THIS IS ALL TOO MUCH!"

Theories Behind Team Cognitive Load

Capacity Theory of Attention

Attentional Control Theory

Cognitive Load Theory

Cognitive Overload Theory

Information Theory

Group/Team Dynamics Theories

Collective Working Memory & Group Cognition

Organisational Effectiveness Theories

Social Facilitation Theory

Leadership Theories

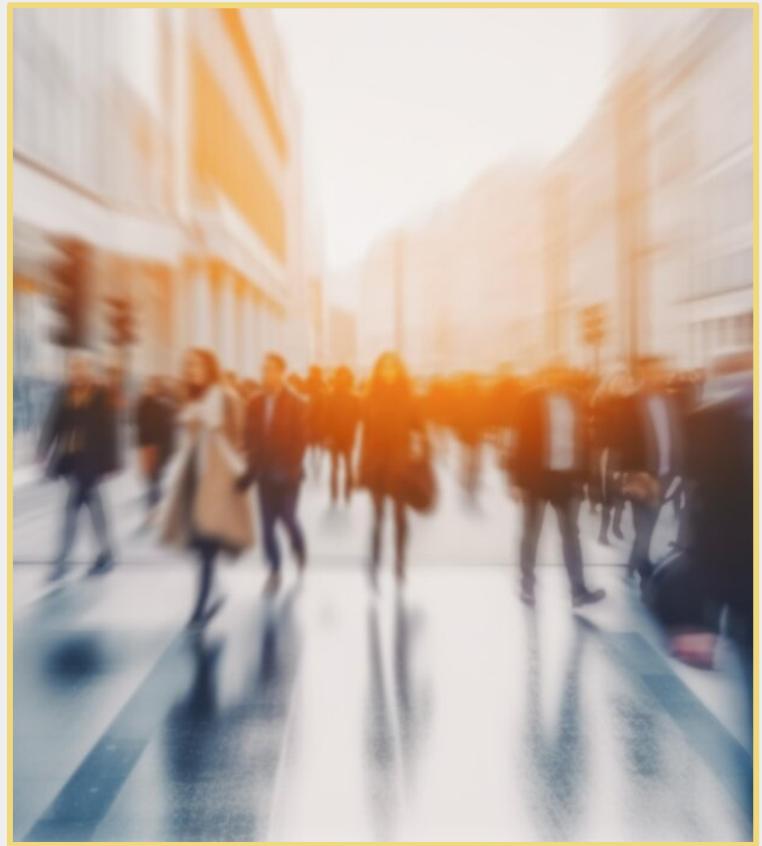
Mutual cognitive interdependence principle



Today's "LOAD"

Fast Technological Progress
Ways of Working constantly change
Complexity & Interdependence
Distributed Work
Need for Lifelong Learning

What about AI?





Team Cognitive Load refers to the collective cognitive burden experienced by a group working together.

Overload occurs when a group's combined cognitive demands exceed its processing capacity, impairing its effectiveness.

Drivers of Team Cognitive Load

| Clusters | Team Characteristics | Task Characteristics | Work Practices & Processes | Work Environment & Tools |
|----------------------|--|--|--|--|
| Constructs & Drivers | Composition <ul style="list-style-type: none">• Team Complexity• Team Competence | Problem Statement <ul style="list-style-type: none">• Problem Definition• Solution Alignment | Use of Information <ul style="list-style-type: none">• Use of Information | Tools <ul style="list-style-type: none">• Suitability• Performance |
| | Roles <ul style="list-style-type: none">• Member Role Clarity• Member Role Fit• Member Role Load | Complexity <ul style="list-style-type: none">• Task• Contextual | Efficiency & Effectiveness <ul style="list-style-type: none">• Process• Consistency• Pace• Performance | Environment <ul style="list-style-type: none">• Environment |
| | Culture <ul style="list-style-type: none">• Team Alignment• Team Interaction• Member Psychological Safety | Metrics <ul style="list-style-type: none">• Metrics | Adaptability <ul style="list-style-type: none">• Resilience• Iterative Working• Continuous Learning | |

Scientific model: <https://www.teamperature.com/resources/scientific-model>

Emerging Research Directions & Opportunities

1. How do different groups experience Cognitive Load Drivers?
2. How do Cognitive Load Drivers affect Outcomes of Importance?
3. Cognitive Load as “Success Moderator”:

Can Effective Management Foster Greater Inclusivity?

Managing Team Cognitive Load
is key to maximizing value by
enabling all employees to
perform at their best.

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Help We're Looking For

- How to raise C-level awareness around the **need to manage team cognitive load?**
- Have you found effective ways to manage **team cognitive load at scale?**
If not, what were the **main obstacles?**
- Please give us feedback on how **teamperature.com** can help you!