

Systems Thinking Reflection

Problem/Situation Represented: The diagram illustrates a common leadership challenge in many engineering projects, specifically the uneven workload distribution that can lead to rapidly declining morale and escalating error rates. When team members are overburdened, they become less motivated and engaged. As this state persists, the productivity of an individual begins to decline. This may eventually spread, affecting the entire system and leading to a decline in overall productivity. The issues may escalate to significant inequality issues.

Importance of the Systems Thinking Approach: Engineering leaders may recognize that the systems thinking methodology enables the recognition of dependencies, rather than issues being handled in isolation. Whilst demanding overtime may reach deadlines, it will worsen morale and cause burnout. The main advantage of this approach compared to traditional methods is that, as a leader, it provides insight into how morale, workload, and quality interact, including delayed effects and feedback loops, both reinforcing and balancing (Abukalusa & Oosthuizen, 2025).

Real-World Leadership Application: Applying systems thinking when reviewing team performance metrics, staff pulse surveys, and defect rates, I can continually monitor the links between workload and morale. Rather than reacting to symptoms, missed deadlines, or incidents, I apply interventions such as redistributing the workload, grading fairly to acknowledge effort, and introducing activities to prevent burnout. By visualizing system maps and incorporating the team into cybernetic feedback between the team and its environment, I can sustain the work system in the work environment annually (Abukalusa & Oosthuizen, 2025). It also positions the leader to anticipate outcomes rather than respond, a necessary and malleable capability in a complex engineering environment.

Reference

Abukalusa, K., & Oosthuizen, R. (2025). An adaptive organisational leadership framework through systems thinking. *International Journal of Organizational Analysis*.

<https://www.emerald.com/insight/content/doi/10.1108/IJOA-07-2024-4635/full/html>