

Development of a self-rating instrument to measure Team situation awareness

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TNO | Kennis voor zaken



Haiti



Haiti

- Different organizations
 - Military teams
 - Crisis management teams
 - NGO's
- From different countries
- Different background, expertise, language, terminology, goals
- Collaboration is complex



“Coordination of the organizations that offered to help is extremely complex. From countries all over the world social workers, first responders, and military personnel are on their way to help fight this crisis.”

A spokesman from OCHA (UN Office for the coordination of humanitarian affairs)

Research goal

- Instrument that measures Team situation awareness
- Insight in what hampers and improves Team situation awareness

This presentation

- Team SA
- Development of measurement
- Examples of constructs
- Case



Team SA

‘SA of the overall team is constituted by team-member interactions’
(Salas, Prince, Baker, & Shrestha, 1995).

Individual team member SA may or may not be shared through communication processes with other team members.

Our focus:

Team processes and factors that influence these processes

Not the amount of overlap



Criteria measurement

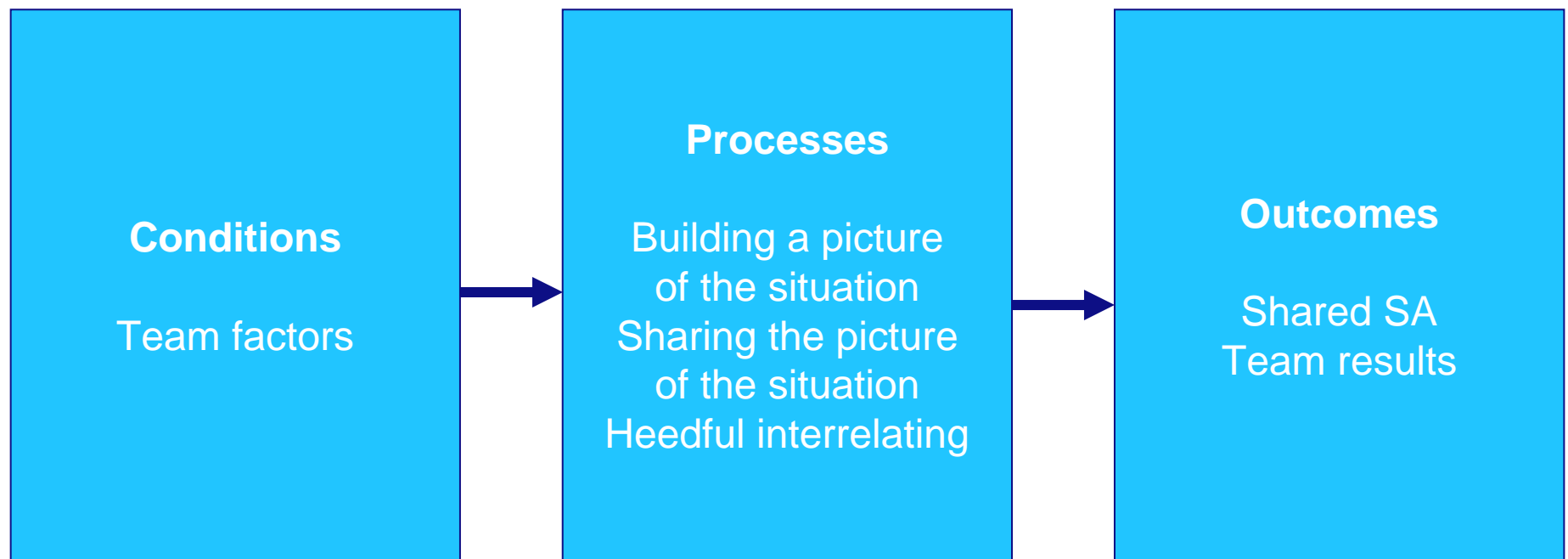
- Generic
- Easy to use, also by commander
- Large teams, diverse teams
- Complex environments (C4I)
- Measure processes
- No interference with task

Our measurement method:

- Self-rating technique

Framework

- Based on literature research
- Most relevant factors
- Translated into items

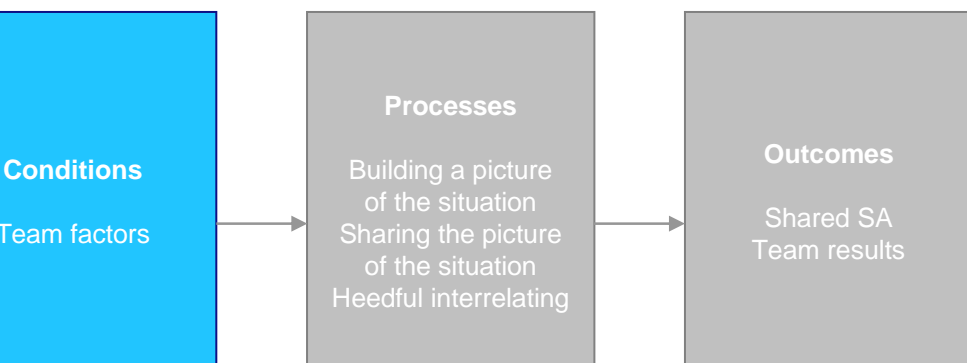


Conditions



Team factors

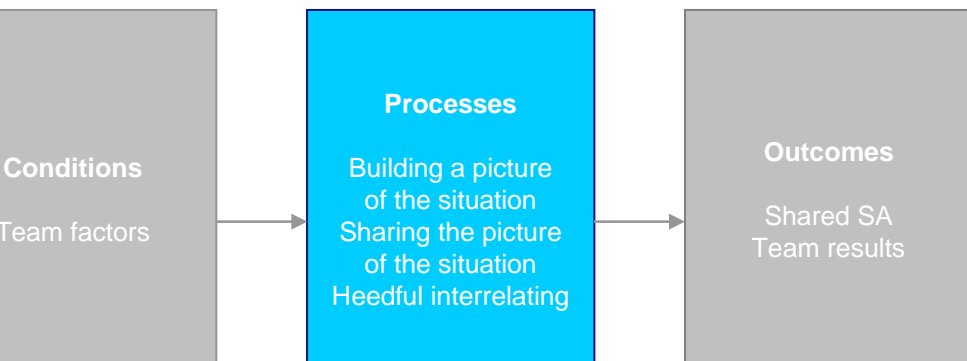
Within my team we have insight in each other's information needs'



Processes

Building a picture of the situation

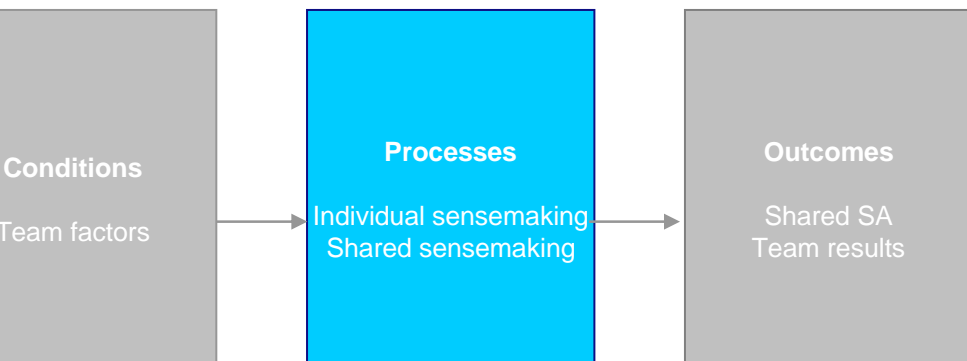
Within my team we posed critical questions to clarify the goals and tasks to be accomplished'



Processes

Sharing the picture of the situation

Within my team we verified that information send was interpreted as intended'

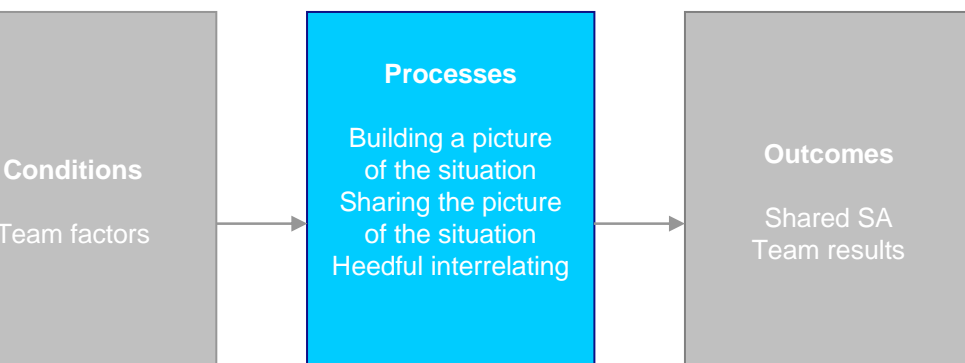
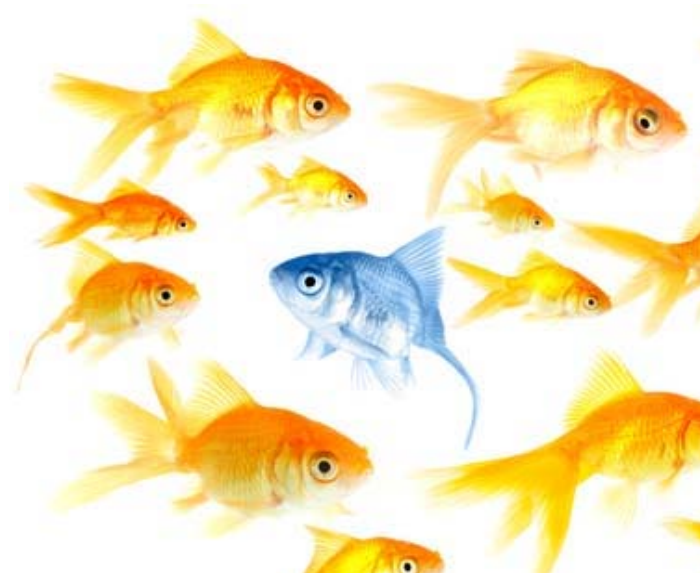


"..send again doesn't look like that"

Processes

Heedful interrelating

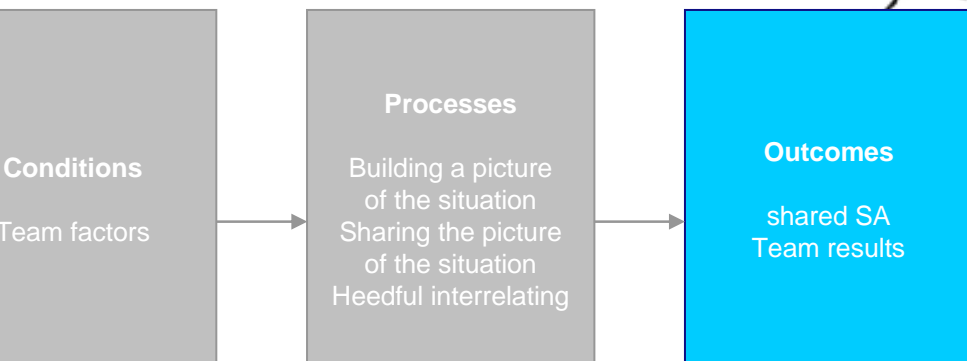
Within my team we noticed different interpretations of the situation'



Outcomes

Shared SA

Within my team we had shared SA of the goals to be achieved'



Application and validation of instrument

- Applied in different exercises
 - 3 Military exercises
 - 2 Crisis management exercises
- Results: insight in TSA and how to improve it
- Feedback of participants
- Additional: factor analysis, cronbach's alpha
- Improve measurement

Case Flood control

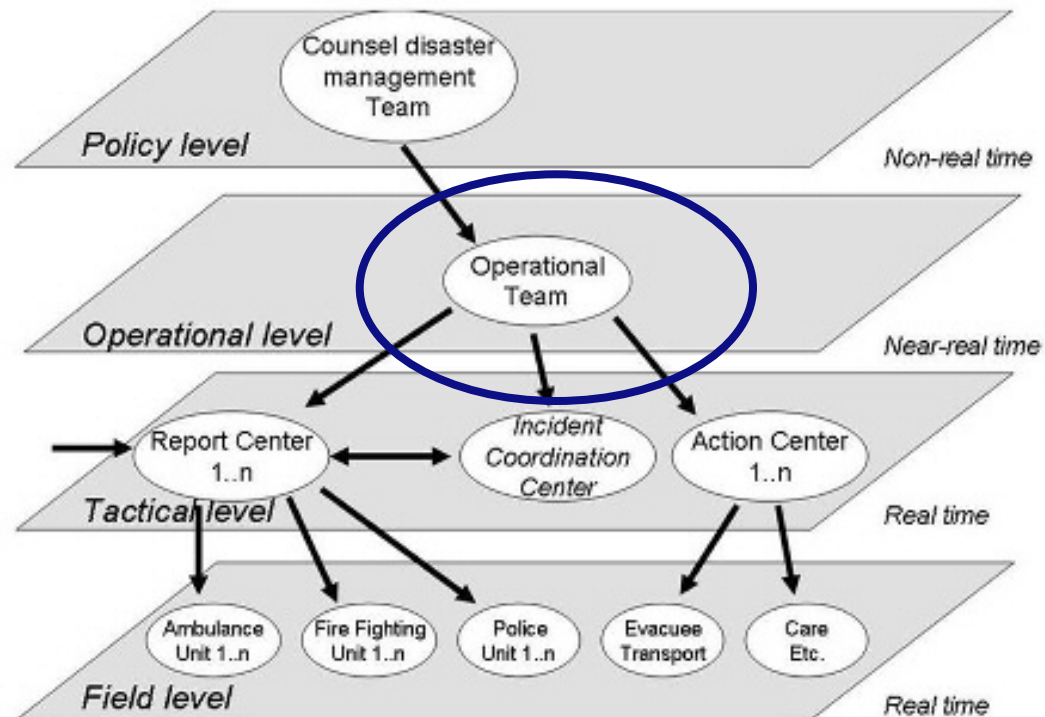
- Civil Flood control exercise
- Most important results



Description of team

Operational team

- Multidisciplinary team
- Larger scale decisions
- Input policy level



Most important results

Team factors

- Insight in information needs

Sharing the picture of the situation

- Determining relevant information for team members
- Passing information in timely manner
- Noticing differences in interpretations in task and roles

Last but not least

- Part of larger tool
- Automatic feedback
- Interventions



Questions?

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"..send again doesn't look like they got it."