

## Evidence-Base: Introduction / Team Structure Teamwork

### Evidence-Base: Team Structure

Teamwork has been studied extensively over the past 20 years. Research suggests teamwork is defined by a set of interrelated Knowledge, Skills, and Abilities (KSA) that facilitate coordinated, adaptive performance, supporting one's teammates, objectives, and mission.<sup>1-4</sup>

Teamwork differs from taskwork (i.e., operational skills), yet both are required for teams to be effective in complex environments.<sup>5</sup> However, knowledge and skill at the task is not enough. Teamwork depends upon team members' ability to:

- Anticipate needs of others
- Adjust to each other's actions and the changing environment
- Have a shared understanding of how a procedure or plan of care should happen

The critical aspects of teamwork include: team leadership, mutual performance monitoring (i.e., situation monitoring), back-up behavior (i.e., mutual support), and communication. These core skills lead to important team outcomes like enabling the team to be adaptable to changing situations, compatible shared mental models among team members, and a stronger orientation toward teamwork. The table on page two presents each competency, definition, behavioral examples, and supporting references.

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Team KSA Competencies and Outcomes

Teamwork	Definition	Behavior Examples	Selected Citation
<b>Team Leadership</b>	Ability to direct and coordinate the activities of other team members, assess team performance, assign tasks, develop team KSAs, motivate team members, plan and organize, and establish a positive atmosphere	<ul style="list-style-type: none"> <li>• Facilitate team problem solving</li> <li>• Provide performance expectations and acceptable interaction patterns</li> <li>• Synchronize and combine individual team member contributions</li> <li>• Seek and evaluate information that impacts team functioning</li> <li>• Clarify team member roles</li> <li>• Engage in preparatory meetings and feedback sessions with the team</li> </ul>	Cannon-Bowers, et al., 1995 <sup>1</sup> ; Salas, et al., in press <sup>3</sup> ; Barach et al, 2004 <sup>4</sup>
<b>Mutual Performance Monitoring (aka., Situation Monitoring)</b>	The ability to develop common understandings of the team environment and apply appropriate task strategies in order to accurately monitor teammate performance	<ul style="list-style-type: none"> <li>• Identifying mistakes and lapses in other team members actions</li> <li>• Providing feedback regarding team member actions in order to facilitate self-correction</li> </ul>	McIntyre & Salas, 1995 <sup>5</sup>
<b>Back-up Behavior (aka., Mutual Support)</b>	Ability to anticipate other team member's needs through accurate knowledge about their responsibilities. The ability to shift workload among members to achieve balance during high periods of workload or pressure	<ul style="list-style-type: none"> <li>• Recognition by potential back-up providers that there is a workload distribution problem involving their team</li> <li>• Shifting of work responsibilities to underutilized team members</li> <li>• Completion of the whole task or parts of tasks by other team members</li> </ul>	McIntyre & Salas, 1995 <sup>5</sup> ; Porter, et al., 2003 <sup>6</sup>
<b>Adaptability</b>	Ability to adjust strategies based on information gathered from the environment through the use of compensatory behavior and reallocation of intra-team resources. Altering a course of action or team repertoire in response to changing conditions (internal or external)	<ul style="list-style-type: none"> <li>• Identify cues that a change has occurred, assign meaning to that change, and develop a new plan to deal with the changes</li> <li>• Identify opportunities for improvement and innovation for habitual or routine practices</li> <li>• Remain vigilant to changes in the internal and external environment of the team</li> </ul>	Cannon-Bowers, et al., 1995 <sup>1</sup> ; Kozlowski, et al., 1999 <sup>7</sup> ; Klein & Pierce, 2001 <sup>8</sup>
<b>Shared Mental Models</b>	An organizing knowledge structure of the relationships between the task the team is engaged in and how the team members will interact	<ul style="list-style-type: none"> <li>• Anticipating and predicting each other's needs</li> <li>• Identify changes in the team, task, or teammates and implicitly adjusting strategies as needed</li> </ul>	Cannon-Bowers, et al., 1995 <sup>1</sup> ; Klimoski & Mohammed, 1994 <sup>9</sup> ; Mathieu et al., 2000 <sup>10</sup> ; Stout, et al., 1996 <sup>11</sup>
<b>Communication</b>	The exchange of information between a sender and a receiver, irrespective of the medium	<ul style="list-style-type: none"> <li>• Following up with team members to ensure message was received</li> <li>• Acknowledging that a message was received</li> <li>• Clarifying with the sender of the message that the message received is the same as the intended message sent</li> </ul>	McIntyre & Salas, 1995 <sup>4</sup>

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#### References

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