

CIPD

Practice summary and recommendations
May 2023

High-performing teams

An evidence review

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Practice summary and recommendations

High-performing teams: An evidence review

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Acknowledgements

This report was written by Jake Young and Jonny Gifford of the CIPD, based on a rapid evidence assessment conducted by Eric Barends, Denise Rousseau, Iulia Cioca and Emilia Wietrak of the Center for Evidence-Based Management.

Publication information

When citing this report, please use the following citation:

Young, J. and Gifford, J. (2023) *High-performing teams: An evidence review*. Practice summary and guidance. London: Chartered Institute of Personnel and Development.

This report and the accompanying scientific summary are available at cipd.org/en/knowledge/evidence-reviews/high-performing-teams

1 Introduction

Employee and team performance are among the most important outcomes in management and organisational life, alongside critical factors such as business strategy, employee wellbeing, and environmental and social governance.

This evidence review looks at one aspect of performance: team effectiveness. Understanding the attributes of an effective team is vital when you are creating an environment in which staff can work together successfully, so team effectiveness is a well-researched area of management.

This review forms part of a series of CIPD evidence reviews on people performance, with topics including understanding and measuring people performance, factors affecting knowledge work performance, employee engagement, and what works in performance management and performance feedback.

An evidence-based approach

We live in an age of information overload, in which it is easy to be swayed by the latest fads or received wisdom. Effective decision-making can be difficult – it requires us to critically question our assumptions and avoid cherry-picking evidence that suits us. Evidence-based practice gives well-established approaches to help with this and, while hard proof is elusive, we can identify the best available evidence to help us decide how best to achieve our desired outcomes.

This evidence review summarises the best available scientific research on team effectiveness. It is based on a rapid evidence assessment (REA), a concise form of systematic review, and you can see the information on which this report is based in the accompanying scientific summary, at cipd.org/en/knowledge/evidence-reviews/high-performing-teams.

2 The nature of an effective team

What is a team?

To understand the factors that influence team performance, we need to ask what we mean by a team. In basic terms, it's a group of people working together to achieve a goal. But it is not simply a group; a team is a collection of interdependent individuals who share responsibility for outcomes and fit into a larger social system, such as a business. A useful definition is a group of employees who:

- are formally established as a team
- have some autonomy to act as an independent group
- are dependent on each other within the group.

A team is a collection of interdependent individuals who share responsibility for outcomes and fit into a larger social system

What is team effectiveness?

A team has the potential to be 'more than the sum of its parts' and therefore to enhance organisational performance. But this is not a given – a poorly functioning team may be counterproductive, so it is important to gauge a team's effectiveness and understand what influences it.

Research often refers to 'team effectiveness', which is usually seen as synonymous with team performance. There are broadly three types:

- **task performance:** effectiveness in the core responsibilities of the team
- **contextual performance** (or citizenship behaviour): helping the organisation's goals or other teams in ways that go beyond the core responsibilities
- **adaptive performance:** for example, learning, innovation and responding to changing demands.

These are usually seen in terms of *performance outcomes* – that is, achieving goals or targets. However, a team may be seen as high performing without being *efficient*. Team efficiency concerns not only the team's results, but also the broad costs of achieving those results. So intra-team processes, or *performance behaviours*, are important aspects of effectiveness and include activities such as information-sharing, feedback, reflecting and learning, and conflict management.

For more information on types of performance, see our evidence review, [*People Performance*](#).

Measuring team effectiveness

Performance outcomes vary widely, and there are no generally accepted instruments to measure team effectiveness. Organisations and researchers often create their own – such as number of items sold, number of clients served or number of errors – so when considering research, you need to view any reported performance gains in context. However, it is possible to consistently assess performance behaviours such as the level of information-sharing and team-member exchange.

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What drives an effective team?

Remember that a team's performance is, to a large extent – although not entirely – a result of the performance of its individual members. So as well as team-level characteristics, consider well-known drivers of individual

performance, such as goal clarity, supervisor support, feedback, and reward and recognition. For more information, read our accompanying [evidence reviews](#) on performance and reward.

In this review we look specifically at the group-level factors influencing team effectiveness. We divide these into three areas:

- **team composition:** the mix of team-member characteristics, for example in age, gender and level of education
- **interpersonal dynamics:** team attitudes that develop as a result of the experiences of team members; research literature terms this as *emergent socio-affective states*
- **organising knowledge:** how important knowledge is represented and distributed within the team; research literature terms this as *emergent cognitive states*.

Table 1: Main factors that influence team performance

Factor	Outcome measures	Effect size
Team composition:		
Team diversity	Team performance (decision-making, creativity, innovation and problem-solving). Contextual performance	●●○○○○
Personality	Team performance	●●●○○○
Interpersonal dynamics:		
Team trust	Team effectiveness (attitudes, information processing and performance)	●●●○○○
Psychological safety	Task performance	●●●●○○
Social cohesion	Task and contextual performance Group task performance	●●●○○○
Organising knowledge:		
Shared thinking ('cognitive consensus')	Team performance	●●●●○○
Information-sharing	Creativity and innovation	●●●○○○
Collective memory ('transactive memory systems')	Team performance	●●●○○○

Notes: Effect sizes indicate positive influence on the specified outcomes. We interpret statistics using a standard rule of thumb: ●●●●● very large; ●●●●○ large, anybody can easily see the difference; ●●●○○ moderate, visible to the naked eye of an expert or careful observer; ●●○○○ small, the difference probably needs to be measured to be detected; ●○○○○ very small. For more detail, see the accompanying [scientific summary](#).

Team composition

There are decades of research on the composition of teams. Clearly, it's crucial that team members have the right skills and knowledge to carry out their roles, but generally team composition is not a major factor in terms of performance.

For contemporary teams, a good mix of age, ethnicity and experience is assumed to enhance effectiveness. However, when we account for team size, team type and task type, evidence suggests this is unlikely to be the case. Any positive relationships between diversity and effectiveness are small. The relationship can even be negative since diversity can adversely affect team cohesion and behaviours such as communication. Organisations should nevertheless still strive for diversity in teams for ethical reasons, even if it does not improve their effectiveness.

We also have good research on how people's personality influences team effectiveness, in particular based on the Big Five traits:

- openness to experience
- conscientiousness
- extroversion–introversion
- agreeableness
- neuroticism.

Of these, only higher agreeableness and conscientiousness lead to better performance, and even these have only a small effect.

So in terms of performance or effectiveness, you need not be over-concerned about team composition. People from different backgrounds and with different personalities can work well in teams together, as can those who are more similar. More important is how teams are managed and the dynamics within the team, as we discuss in the following sections.

People from different backgrounds and with different personalities can work well in teams together, as can those who are more similar

Of course, we're not suggesting the selection of individuals is not important; as already mentioned, team performance is to an extent dependent on individuals' performance. Getting talented people in the right roles is crucial. Similarly, workforce diversity remains an important wider consideration for all organisations.

Recommendations for managers

- Help boost your team's performance by making sure you have people with the right skillsets in the right jobs.
- Work on the assumption that a team with a diverse mix of backgrounds and personalities should be able to work well together.
- Don't over-engineer the composition of teams in terms of diversity or personalities.

Interpersonal dynamics

Interpersonal dynamics are known in the research literature as *socio-affective states*. They are the experiences and relationships that influence how a team functions and develops. Key dynamics include trust, psychological safety (a form of confidence) and social cohesion.

Trust

Evidence suggests that trust between team members is an important influence on performance. Trust works in two ways: *cognition*-based trust, whereby we make a cognitive evaluation of the reliability, integrity and competence of our teammates; and *affect*-based trust, which concerns our emotional feelings about these traits. Both involve our views about people's ability, benevolence and trustworthiness.

Research also reports that team trust is particularly important under certain challenging conditions – notably when there is:

- **A high level of *task interdependence*:** team members heavily rely on each other to perform effectively.
- **A high level of *virtuality*:** team members do not work together in person in the same space, and/or at the same time. Clearly this has increased dramatically due to the COVID-19 pandemic, with hybrid working now common for many.
- **A lack of *temporal stability*:** team members have little history of working together, or don't expect to do so much in the future.
- **A high level of *skill differentiation*:** team members have different specialised knowledge or skills that make them uniquely qualified and hard to substitute for one another.
- **A high level of *authority differentiation*:** the responsibility for making decisions is spread across the team.

How can we build trust?

Familiarity between team members helps build trust, particularly for those who work virtually (see below). So it's no surprise that research shows good-quality teambuilding activities strengthen team trust. One practice that erodes team trust, though, is negative performance feedback. You can find information on this in our evidence reviews on what works in feedback and performance management.

Psychological safety

Closely related to trust is psychological safety. It is important that people believe a team is safe for 'interpersonal risk-taking' and that they can speak up or take action without being embarrassed, rejected or punished. Psychological safety focuses on the actions we are willing to take ourselves, whereas trust focuses on the actions we believe others will take. Unsurprisingly, research suggests psychological safety also has a moderate to large positive impact on team performance.

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Team cohesion

Social cohesion – feelings of friendship, caring and closeness among team members, and enjoyment of each other’s company – has a moderate to large positive impact on team performance. Related constructs such as team familiarity, relationship-building and friendship have similar impacts.

Research shows that social ties are vital for newly acquainted team members, although they become slightly less important over time. Social cohesion also has a greater effect on performance within large teams, virtual teams, project teams and highly interdependent teams.

Social cohesion takes time to develop and is not stable, being likely to change over time. Regular teambuilding activities can help enhance and sustain familiarity and cohesion.

A closely related concept to cohesion is *team identification* – how employees identify with their teams. Do people value being part of a team, share common norms and behaviours, and acknowledge this? Unsurprisingly, team identification increases team performance through social cohesion. You can find information on the wider aspect of *organisational identification* in our evidence review on [employee engagement](#).

How can we develop cohesion?

The importance of cohesion means we should consider how it can be developed. One way can be through recognition and other actions that foster a climate of inclusion: helping all team members to feel included and valued for their unique skills and personalities. For more information, see our evidence review on [building inclusive workplaces](#).

Because turnover of team members weakens integration and cohesion, risking a drop in performance, you should avoid unnecessary changes in personnel or team composition, making the team as stable as is practical.

Regular teambuilding activities can help enhance and sustain familiarity and cohesion

Interpersonal dynamics in virtual and hybrid teams

As mentioned above, research consistently shows that in virtual teams, the influence of trust and cohesion is stronger and more important for performance.

Colleagues who worked face-to-face before the pandemic but now work in virtual or hybrid teams will have an advantage over those who join a team when it is already virtual or remote. However, you can address this by, for

example, increasing teambuilding activity or holding in-person team meetings focused on helping people to get to know each other and build social ties.

The factors that drive success and present challenges are generally the same for virtual teams as for in-person teams, but in virtual environments it takes more work to get it right. For more information, see our evidence review on [developing effective virtual teams](#).

Recommendations for managers

- Understand that social cohesion is not a stable trait and is likely to change over time. Check in with the team to understand how they are feeling towards one another and whether strategies to boost cohesion are needed.
- Build trust and psychological safety through developing bonds and familiarity among team members, for example through teambuilding activities.
- Build cohesion by ensuring team members feel a sense of belonging and recognise what they contribute to the team with their unique skills and personalities.

Organising knowledge

We usually consider cognition and knowledge in relation to individuals, but they can also exist at a group level. *Team cognition* is an *emergent state*, meaning that it only occurs when team members interact. It describes how a team collects, shares, organises and distributes its knowledge. It is the synergy of knowledge that individual team members hold: a case of the whole being greater than the sum of its parts. The aspects of team cognition that have the largest effect on team performance are shared thinking, information-sharing, collective memory and team learning.

Shared thinking

Shared thinking, known in the research literature as *cognitive consensus*, refers to whether team members define and think about issues in a similar way. It is less concerned with final decisions than about whether there is team harmony over how issues are interpreted and communicated.

Information-sharing

Information-sharing is how a team uses its members' knowledge or expertise, and is especially important when dealing with complex problems, allowing team members to share their knowledge and experiences to generate ideas and solutions. Sharing information not only promotes trust and cohesion, which we know is vital for performance, but it is a strong predictor of performance across different team types and sizes.

Collective memory

Related to information-sharing is building and maintaining a team's collective memory, referred to in research as the 'transactive memory system' (TMS).

This works like an indexing system that tells team members who knows what – and thus supports information-sharing. Research consistently shows that collective memory has a large positive effect on team performance. Interestingly, evidence suggests that trust in teammates, rather than in management, predicts the emergence of a collective memory.

Team learning and reflection

Team learning, another aspect of team cognition, involves asking questions, challenging assumptions and discussing errors or unexpected outcomes. Perhaps surprisingly, how teams learn as a group usually has little impact on performance. However, the related aspect of how teams reflect together on their goals, collaboration and communication is important. Teams that periodically *reflect* on how they are doing – for example, through discussion – are more likely to benefit from shared thinking, information-sharing and collective memory.

Teams that periodically reflect on how they are doing are more likely to benefit from shared thinking, information-sharing and collective memory

Recommendations for managers

- Identify what information each person needs for the team to function effectively.
- Ask team members to clarify their personal knowledge and experience, and store and update this information centrally so the team can make best use of the expertise it holds.
- Create a database or list of knowledge in the team to keep colleagues up to speed with who knows what and accelerate the process of knowledge-sharing, both within the team and around the organisation.
- Establish channels and forums for information exchange and, to encourage their use, give recognition to colleagues who share information or insights with others.

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What interventions influence team effectiveness?

Besides exploring the factors that can be fostered to make teams more effective, research also offers a well-established body of evidence on the effectiveness of team-level interventions.

Table 2: Main interventions to build team effectiveness

Intervention	Outcome measures	Effect size
Teambuilding	Trust, social cohesion and internal communication	●●●●○
	Team performance	●●●○○
Teamwork training	Objective and third-party team performance	●●●●○
Debriefing and reflection	Team task performance (specifically speed)	●●●○○
Group goal-setting	Team performance	●●●●○

Notes: Effect sizes indicate positive influence on the specified outcomes. We interpret statistics using a standard rule of thumb: ●●●●● very large; ●●●●○ large, anybody can easily see the difference; ●●●○○ moderate, visible to the naked eye of an expert or careful observer; ●●○○○ small, the difference probably needs to be measured to be detected; ●○○○○ very small. For more detail, see the accompanying [scientific summary](#).

Teambuilding activities

Teambuilding is a common and popular way of improving relationships and clarifying roles through both formal and informal means. It typically targets the more social, personal side of teams and often takes place outside the workplace. These interventions are found to make a moderate contribution to team performance, largely due to their moderate-to-large effect on trust, social cohesion and internal communication.

Teambuilding is especially effective under certain conditions:

- The person who initiates it is external to the team.
- It is supported by management.
- (Perhaps surprisingly) team members are not involved in planning.
- It's jointly led by an internal and an external colleague.
- The rationale is corrective rather than preventive – designed to resolve tangible problems.
- The focus is on the group, rather than on individuals.
- The focus is on both team goals and interpersonal relations.
- It's planned alongside other interventions designed to support team effectiveness.

Teamwork training

Team members, as well as leaders, have an important role in ensuring team effectiveness, so should be proactive in this. For example, through interactive group training, they can educate themselves and each other about the importance of fostering social support and managing interpersonal conflict, and effective approaches to doing this.

Training often takes the form of a group activity in which team members discuss the team's purpose, goals and performance, or simulate these using skills such as communication or coordination. Research shows a large, positive effect on team performance and on how members feel about the team, its leaders and those within it, their knowledge of colleagues' respective roles and needs, and their interpersonal relationships within the group.

Debriefing

Related to team reflection (see above), debriefing sessions allow team members to consider their recent experiences, construct meaning from their actions and explore lessons learned in an open and non-punitive environment. When conducted appropriately, such sessions can significantly boost team performance, especially where certain requirements are met:

- The debrief is focused on improvement and development, rather than evaluation or judgement, because this generates more honest feedback and enhances experiential learning.
- The session targets specific activities or incidents, rather than performance in general.
- The debrief considers a variety of perspectives and sources of evidence, allowing input from multiple participants and at least one additional source of evidence, such as organisational data.

Goal-setting

Research across a wide range of areas – sport, medicine, management – has established the effectiveness of goal-setting interventions on performance. Generally, challenging and specific goals have a positive effect on performance. What's interesting is that setting goals at the team level may yield even greater performance than at the individual level.

Team-level goals can also enhance both social and cognitive processes, notably planning, cooperation, communication and morale-building. Finally, research once again highlights the importance of reflexivity, which mediates the effect of group goals – without it, they are less effective.

You can find more information on goal-setting in our evidence review on [performance management](#).

Team-level goals can enhance planning, cooperation, communication and morale-building

Recommendations for managers

You can help boost team performance by doing the following:

- Develop external teambuilding sessions focused on improving trust, cohesion and communication.
- Provide teamwork training to encourage members to learn about the needs of others, with a view to increasing support and strengthening working relationships.
- Allow team members regular opportunities to reflect on their experiences and actions to learn and develop (not to assess or evaluate).
- Ensure team members regularly and explicitly consider their shared goals, with a view to supporting planning, communication and cooperation.

5 Conclusion

Teams are essential building blocks of any organisation. They can be more than the sum of their parts, but can also result in conflict and disfunction if not managed properly. It's important to understand what comprises a meaningful team and the factors that influence team effectiveness.

Diverse teams can be high-performing teams. There is no clear evidence that diverse team composition helps performance; it can make a small contribution to performance but equally can negatively impact factors like team cohesion and communication. However, there are strong ethical imperatives for diversity and it remains an important organisational factor.

Different personalities can be team players. While teams whose members are agreeable and conscientious will perform slightly better, personality traits are not generally related to performance.

Team dynamics are vital for performance. There are several aspects to this: *trust* between team members; *psychological safety* – the confidence to speak up and take risks; and *team cohesion* – the benefits of familiarity and of shared norms and behaviours. Team dynamics can be especially important for teams that work virtually, have little history of working together or have high interdependency.

Organising team knowledge improves performance. There are several aspects to this: developing *shared thinking* – how team members interpret issues and communicate; *information-sharing* – making best use of members' expertise; *collective memory* – shared knowledge of who knows what; and *team reflection* on shared goals, collaboration and communication.

Well-planned interventions increase team effectiveness. These include: *teambuilding*, *teamwork training*, *debriefing sessions* and *goal-setting*.

The well-oiled team will be a formally established group of interdependent workers with the right capabilities and some autonomy in how it acts.

CIPD

The Chartered Institute of Personnel and Development
151 The Broadway London SW19 1JQ United Kingdom
T +44 (0)20 8612 6200 **F** +44 (0)20 8612 6201
E cipd@cipd.co.uk **W** cipd.org

Incorporated by Royal Charter
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Issued: May 2023 Reference: 8388 © CIPD 2023