
TEAMS AND TEAM EFFECTIVENESS

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INTRODUCTION TO THE NETWORK

At CRF we believe HR's purpose is to help the organisation build both people capability and an enabling environment, helping define and deliver business performance. Therefore, a key goal of HR practices and HR strategy more broadly is to shape employee behaviour in ways that contribute to the performance of the organisation.



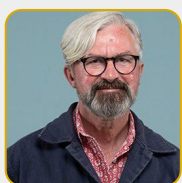
Psychologists have studied behaviour at work since around the early 1900s. Work psychology as a scientific discipline therefore provides much of the foundational knowledge for HR practice. The purpose of the Work Psychology Network is to provide an outline of work psychology theory and evidence relevant to various areas of HR activity and consider its implications for HR practice.

These reports contribute directly to the effectiveness of the HR function and HR professionals by providing a more detailed, elaborate and nuanced understanding of both the nature of the workplace behavioural phenomena HR is trying to shape and which practices or approaches are most likely to help do this.

As discussed in several of our previous reports – including [Evidence-Based HR: A New Paradigm](#) and [Driving Organisational Performance: HR's Critical Role](#) – the HR function's effectiveness depends on being able as accurately as possible to identify HR-relevant business issues and actions that will help resolve those issues.

The insights provided by work psychology research help us do both these things, taking us beyond the usually unhelpful notion of 'best practice' and instead to practices relevant to our business context and the specific issues our business faces.

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Thanks to Professor Joanne Lyubovnikova (University of Liverpool) for generously sharing views and insights.

Teams are central to organisational life, yet their complexity, diversity and dynamic nature make them difficult to define, understand and manage effectively.

At APS, we consistently see that when teams develop deeper self-understanding — underpinned by robust, evidence-based assessment and tailored development — they build trust, resilience and stronger ways of working, leading to measurably improved performance.

As this report explores, defining what constitutes a team, and reliably measuring team effectiveness, is far from straightforward. Meaningful insight requires looking beyond surface-level indicators to examine both outcomes and the underlying processes — such as collaboration, psychological safety and shared purpose — that sustain performance over time.

Research in work psychology makes clear that what works for one team or context rarely translates wholesale to another. Team effectiveness is shaped by purpose, context, composition and the challenges teams face as they evolve. Yet too often, teams are viewed through an optimistic lens, where simply bringing people together is assumed to guarantee better results. In practice, teams can just as easily experience miscommunication, unproductive conflict or an over-reliance on “quick fixes” that fail to address underlying dynamics.

This report is intended for leaders and practitioners who are committed to moving beyond assumption and intuition. By combining rigorous research, practical insight and assessment approaches that go beneath observable behaviours, it offers a foundation for creating environments in which teams — and the people within them — can genuinely thrive.



Rob Field

Director of Leadership & Talent Development

EXECUTIVE SUMMARY

- There are several important features of the context which should be considered before we discuss teams and team effectiveness:
 1. Teams are not necessarily effective nor a good thing, but they are often perceived to be. This has been described as the **romance of teams - where there is a bias towards seeing teams as generally positive**. This results in the over-application of teams, poor organisational alignment and a limited assessment of the costs and benefits of teams. A related form of bias is the view that teamwork is easy.
 2. However, **organising work into teams makes sense under two general conditions**: When the work requires a combination of skills or knowledge no one person is likely to have, and when the task is so large or complicated it cannot be completed by employees working individually.
 3. Teamwork today is often viewed as fundamentally different to teamwork in the past because of broader changes in the way organisations function and their environment. Such claims, while plausible, are rarely supported by good quality evidence.
 4. There is a large body of work psychology theory and evidence about teams, though its relevance and value to practice has been questioned.
 5. Teams **are fundamentally unstable and dynamic entities** which has important implications for how we conduct research into teams and how we improve team effectiveness.
- Teams are very diverse in many ways, which means **defining a "team" is not straightforward**.
- There are many definitions of teams and while **most share some similar features** (e.g., two or more individuals, shared goals, work interdependently), **some definitions have more unique elements** (e.g., members have complementary skills, members are distinguishable from nonmembers, engage in reflexivity).
- It is also possible to consider **what a team is not**. Sometimes work groups are **pseudo teams**; they may be described as team but do not operate as such (e.g., little or no interdependence, no shared goals). A related concept is the co-acting group. Calling a group a team and trying to manage it as a team when it is not may not be an effective approach. **There may be more pseudo teams than real teams in most organisations**.
- Rather than identifying work groups as either teams, or not teams, **it may be more useful to consider the dimensions along which groups can vary** and which make them more or less team-like.
- There have been many attempts to **identity different types of teams and find ways in which they can be organised into taxonomies**. This is potentially useful for both research and practice, however there are several challenges to developing such taxonomies: For example, teams may be a mix of different types and, given their unstable nature, may often be shifting from one team type to another.

- In addition to identifying types of teams, there have also been attempts to specify the **types of tasks** done in teams (e.g., managing others, human service) along with **higher level characteristics** of teams (e.g., task interdependence, leadership structure). This enables a distinction to be drawn between **what teams do and how they do it**.
- Identifying and defining teams is further complicated as we must also consider **multiteam systems** (organisations may contain multiple, interacting teams), that **individuals may belong to several teams** (multiple team membership) and the **blurring of boundaries between teams**.
- **While defining teams can be challenging, multiple definitions, dimensions and taxonomies are available** which allow us to more clearly describe, understand and manage teams across a range of contexts and specific team forms and functions.
- **Team effectiveness** partly refers to whether **team outcomes are acceptable to those who set standards for team outputs**. In other words, the precise meaning of an assessment of team effectiveness will depend on the context.
- However, team effectiveness also refers to **team processes** - the ways in which the team members work together and their behaviours. Teams may be doing everything "right" but still not achieve the desired outcomes, particularly when those outcomes are not much within the control of the team. Hence, team processes are a part of team effectiveness.
- Some definitions also suggest that **individual-level team member outcomes** such as satisfaction or well-being are a part of team effectiveness.
- While the team outcomes as an aspect of team effectiveness is very context-specific, team processes that can be considered to indicate team effectiveness may be somewhat more general.
- **Measuring team effectiveness can be quite an elaborate process**, particularly given the role of context and the dynamic and unstable nature of teams. It can be made more manageable by focusing on only those aspects of team processes and behaviour that are most likely to lead to team outcomes. This, in turn, requires a good understanding of the team and the task.
- **There are very many influences on team effectiveness**. This means that focusing on just one or two is unlikely to be helpful. Also, which factors have the strongest influence is likely to depend heavily on context. Therefore claiming one or two as generally the most important is also unlikely to be helpful.
- There are also **many models of team effectiveness** which have evolved historically from relatively simple cause and effect approaches to highly complex models which include a large number of variables. Here too, the dynamic and unstable nature of teams makes it difficult and unrealistic to develop a comprehensive and reasonably accurate model of how teams function.

- Given the very large number of influences on team effectiveness, work psychology researchers have attempted to **categorise such influences** into, for example, structural features, mediating mechanisms and compositional features.
- There have also been attempts to identify a **smaller and more manageable number of influences that are most likely to be important**. Sometimes these are described as enabling conditions (e.g., a real team, compelling purpose, norms of conduct). The idea of a Big Five of teamwork has also been proposed, including team leadership, mutual performance monitoring and adaptability. While it seems practically useful to simplify in this way, the extent to which these frameworks are based on empirical evidence is somewhat unclear.
- In order **to create and improve team effectiveness, a four stage approach is proposed**. This first deals with the most fundamental mistakes that inhibit team effectiveness before discussing setting conditions for effectiveness and then fixing team effectiveness problems:
 1. **Tackle and remove misconceptions about teams.** Misconceptions about teams appear to be widespread. For example, that harmonious working leads to team effectiveness. Such misconceptions need to be challenged otherwise they will lead to practice decisions that do not lead to team effectiveness.
 2. **Create awareness of common mistakes and how they can be overcome.** Researchers have identified what they believe to be common mistakes made in managing teams which are less likely to happen if practitioners are made aware of such mistakes. Such mistakes include using a team for work that is better done by individuals and assuming team members already have all the skills they need to perform well.
 3. **Set the conditions for team effectiveness before the team is created.** Rather than take remedial action when things go wrong it is argued that it is more useful to set initial conditions that are likely to lead to team effectiveness.
 4. **If something appears to be going wrong consider ways of fixing the problems.** Taking remedial action is best done in a structured way using a range of frameworks:
 1. Some sort of assessment of team effectiveness issues: What is going wrong?
 2. Some sort of diagnosis or analysis of causes: Why is it going wrong?
 3. Identify actionable solutions or interventions that are likely to help: What can we do about it? Followed by an evaluation of whether or not these actions have been effective.
- Teams are unstable and dynamic. They may also have self-regulating properties. For this reason, it is difficult to “tweak” factors in real time that we assume will help fix team effectiveness issues. Setting conditions for team effectiveness before the team is formed requires more initial investment but is also likely to lead to higher and more sustainable levels of team effectiveness.

1. INTRODUCTION

The idea of a “team” can evoke many thoughts and feelings. There’s something almost innately positive about a team, even though we also know they don’t always work so well. There’s a sense that teams must be changing as the world of work is changing – itself partly driven partly by the changing nature of teams. However, pinpointing exactly what these changes are is not straightforward.

The work psychology literature on teams and team effectiveness is large, as is the commercial activity which aims to support how organisations create and manage teams. At the same time, both researching and managing teams is challenging as they are dynamic and unstable phenomena: How can you research or manage something that’s constantly on the move?

In the introduction we briefly consider the context of teams and team effectiveness and then describe the structure of the report.

1.1 ARE TEAMS ALWAYS A GOOD THING? THE ROMANCE OF TEAMS.

What’s the point of teams? That may sound like an odd question, particularly given that teams are sometimes the only way to get work done – when it simply cannot be completed by individuals working alone. For example, the task may require a combination of specialist knowledge and skills which no one person is likely to have. Or the task may be so large or so complicated that it needs to be divided amongst a group of people working together.

It makes sense to create a team if a team is required to do the work, though as discussed below, organisations create teams even if they are not required or helpful. However, it does not follow that team or group working is necessarily more effective than individuals working alone, particularly where some parts of the task can be more effectively completed individually.

Some of the reasons why teams are less effective have been known for decades in work and social psychology and include inefficiency, errors, social distraction, groupthink, social loafing, interpersonal conflict and polarisation (Campbell, 1968).

However, the continued widespread use and popularity of teams as a way of organising employees to complete tasks might suggest that their value remains largely unquestioned.

The appealing nature of teams has been described as the “romance of teams” (Allen & Hecht, 2004) which they define as:



...a faith in the effectiveness of team-based work that is not supported by, or is even inconsistent with, relevant empirical evidence. We argue that this faith is commonly - although, obviously, not universally - held among managers, their employees, and the general lay population.

They go on to discuss three negative practical consequences of this misplaced faith in teams:

Over-application of teams:¹ The assumption that teams are always or usually effective means that teams are widely deployed without too much thought. This, in turn, means that: (a) teams are used without taking into account the organisational context, which is a major determinant of team success; (b) there is little consideration of whether teams are an appropriate way of doing the work; (c) everyone is put into a team whether or not it makes sense to do so or has any meaning for them, creating pseudo teams (see later definitions section).

Poor organisational alignment: Deploying teams based on the assumption they will just “work” means that the organisational support, resources and structure teams need to be effective are not put in place.

Lack of cost/benefit analyses: All practices and interventions have costs and benefits. However, in the case of practices deployed largely because of faith in their benefits – such as teams – the costs are unlikely to be considered. Without considering both the costs and benefits it is not possible to determine whether implementing teams is worth it.

¹The over-application may also have occurred because “the term “team”, at least in part, became a buzzword that managers would utilize to highlight a focus on a collective (rather than individualistic) work orientation.” (Humphrey & Aime, 2014)

A related aspect of the romance of teams – or the positive bias towards teams – is not only the belief that team-based work is effective but also that it's easy to do and it's obvious how to do it well. Klein (2012) offers an explanation of why this may be the case:



...there is an assumption out there that teamwork is easy. After all, we're taught from an early age to cooperate, coordinate, and communicate with others as we tackle playground games and classroom learning exercises. Moreover, most of us are inundated with the spectacle of sport, and the way in which we follow sports makes us believe we inherently understand teamwork.

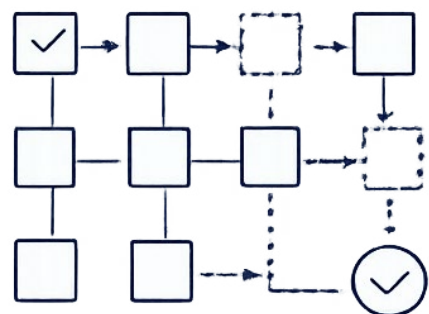
The assumption that teams are simply a good thing and so should be widely used is not justified and may have negative consequences for organisations and employees. This assumption is also relevant to understanding and evaluating the work psychology theory and evidence around teams and their practical implications.

1.2 WHEN DO TEAMS MAKE SENSE?

Given teams are probably over-used, what are the circumstances in which it is helpful to organise work into teams? This will be discussed in more detail later, but for now we can identify some general circumstances, some of which have already been mentioned.

IT MAKES SENSE TO USE TEAMS WHEN THE WORK OR THE TASK:

- Requires a combination of skills or knowledge no one person is likely to have.
- Is so large and/or complicated that it cannot be completed by employees working individually.



1.3 HAS THE NATURE AND USE OF TEAMS CHANGED? AND WHY DOES IT MATTER?

The idea that teams and teamwork are quite different now compared to some (usually unspecified) point in the past is mentioned frequently in both academic and practitioner literature.

For example, Tannenbaum et al (2012) suggest that:

Today, most teams operate in a more fluid, dynamic, and complex environment than in the past. They change and adapt more frequently, operate with looser boundaries, and are more likely to be geographically dispersed. They experience more competing demands, are likely to be more heterogeneous in composition, and rely more on technology than did teams in prior generations.

Hackman (2012) states that:

Now, groups handle a much wider variety of tasks that often have considerable complexity and uncertainty, such as providing organisational leadership... carrying out negotiations... and managing organisational change initiatives. Traditionally, groups operated within a single organisational context. Now, groups often include members from two or more different organisations that may have different policies, practices, and Cultures...And, finally, groups traditionally have been created top-down by an organisational manager...Now, increasing numbers of groups are self-created, often using electronic technologies, to explore shared interests...

It is important to note that, in general, **claims about the ever-changing nature of work organisations are rarely supported by a sufficient quantity of good quality evidence.** It is undoubtedly true that things have changed, but what exactly has changed and how much has it changed? This is also the case when it comes to claims about changes in teams:

Many scholars have pointed to evidence of new team forms in today's interconnected and fast paced world...Despite calls over several years for empirical research to examine, explore, and define new teamwork forms, empirical papers that do so directly remain few enough to prompt continued calls for more research. - Kerrissey et al (2020)

While traditional ways of defining and thinking about teams may be challenged by phenomena such as multiteam systems, multiple team memberships and blurred team boundaries (discussed in the definitions section below), such phenomena are not necessarily new, even if research and practice have tended to ignore them.

Another change currently taking place is the increasing use of AI in the workplace. This too is likely to have impacts on the ways in which teams work (for recent reviews see Bankins et al, 2024 and Khakurel & Blomqvist, 2022) but, here too, it is not yet clear what the implications will be.

Organisations and workplaces change, which can also change the way teams work. Such changes in the economic context and technology may profoundly and fundamentally change our understanding of teams and team effectiveness. However, much more likely is that the work psychology fundamentals of teams – both research and practice – will remain largely unchanged. At the same time, we must be aware when elements of our research and practice are no longer relevant or when new approaches are required.

1.4 HOW USEFUL IS THE SCIENTIFIC EVIDENCE AND THEORY ABOUT TEAMS?

As mentioned, there is now a large body of work psychology research about teams. It should be noted that this area, like all areas of work psychology, has methodological and other limitations which sometimes limit its practical value.

Compared to some other areas of work psychology, studying teams is much more challenging. Their dynamic nature means that much more elaborate research designs are required to gather data that might reveal these dynamics. Explaining how teams work also requires similarly elaborate theories.

However, even the practically useful teams research may be having little impact on organisational practice. Klein (2012) suggests that:

For those not deeply immersed in the research on teams, the science of team effectiveness is poorly translated and rarely understood.

One reason for the poor translation and lack of understanding could be the complexity and size of the body of work on teams. Salas et al (2005) suggest that the literature has become “unmanageable”:

“

Although a remarkable amount of research has been conducted to determine how to make teams function maximally, no one has been able to clearly define exactly what is teamwork. The study of teamwork has been fragmented over the years and has not lent itself to being used practically.



The scientific evidence and theory about teams is useful, but making practical use of this body of scientific work is not as straightforward as it might be in other areas. The many widely-used tools, techniques and models of teamwork and team effectiveness that have limited scientific support may be one consequence of this.

1.5 TEAMS ARE UNSTABLE, DYNAMIC ENTITIES

It should go without saying that teams are unstable and dynamic. However, it seems that much teams research and practice proceeds as though this is not the case.

Research focuses heavily on simple x causes y accounts of team effectiveness which often include consideration of moderation or mediation. Practice focuses too much on over-simplistic models such as Tuckman's (1965)² four stage model of team development (Forming, Storming, Norming, Performing) or Belbin's (1981)³ Team Role Inventory (Chairman/Coordinator, Shaper, Plant, Monitor-Evaluator, Company Worker/Implementer, Resource Investigator, Team Worker and Completer-Finisher).

Throughout this report, as we discuss work psychology theory and evidence around teams and team effectiveness, it is important to bear in mind the unstable and dynamic nature of teams, even if this is mostly not reflected in the research we discuss.

We will, however, return to this theme at several points throughout the report, particularly when we discuss interventions for improving team effectiveness.

2. WHAT ARE TEAMS?

Teams are not only unstable and dynamic – they are diverse. They have a broad range of purposes, sizes, compositions, designs, life-spans and can be found in a very wide range of contexts at different organisational levels.

Given this diversity, is it possible or helpful to talk about teams in general? Probably not. Almost anything we might want to consider about teams or team effectiveness is likely to depend a lot on the nature of the team.

Here we consider some of the numerous definitions of teams (and what is not a team), attempts to differentiate between team types and some of the challenges of defining teams clearly.

²For a historical overview see Bonebright (2010)

³For a validation study see Fisher et al (2001)

2.1 WHAT IS A TEAM?

What counts as a team? And what doesn't?

SOME DEFINITIONS OF TEAMS	
...a distinguishable set of two or more people who interact, dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission.	Salas et al (1992)
A small number of people with complementary skills who are committed to a common purpose, set of performance goals, and approach for which they hold themselves mutually accountable.	Katzenbach & Smith (1993)
A team is a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (for example, business unit or the corporation), and who manage their relationships across organisational boundaries.	Cohen & Bailey (1997)
(a) Two or more individuals who; (b) socially interact (face-to-face or, increasingly, virtually); (c) possess one or more common goals; (d) are brought together to perform organisationally relevant tasks; (e) exhibit interdependencies with respect to workflow, goals, and outcomes; (f) have different roles and responsibilities; and (g) are together embedded in an encompassing organisational system, with boundaries and linkages to the broader system context and task environment.	Kozlowski & Ilgen (2006)
...individuals are members of a team when they share the responsibility and reward (or penalty) for the outcomes of the team's work and recognize each other as members of the team.	O'Leary et al (2011)
Real teams are intact social systems whose members work together to achieve a common purpose. They have clear boundaries that distinguish members from nonmembers. They work interdependently to generate a product for which members have collective, rather than individual, accountability. And they have at least moderate stability, which gives members time to learn how to work well together.	Hackman (2012)
...we define teams as assemblies of interdependent relations and activities organising shifting sets or subsets of participants embedded in and relevant to wider resource and institutional environments. As stated, this definition broadly encompasses self-organising collectives... Thus, an important codicil to this definition is that a team is bound to the extent it self-organises...	Humphrey & Aime (2014)
...an individual holds real team membership when they not only identify themselves as being a member of a team, but they report (a) that their team's task requires them to work closely and interdependently with fellow team members, (b) that their team has shared objectives, and (c) that their team engages in regular reflexivity to review team effectiveness.	Lyubovnikova et al (2015)

The most comprehensive definition appears to be that offered by Kozlowski & Ilgen (2006) which suggests seven features that need to be in place to identify an entity as a team:

- 1 Two or more individuals.
- 2 Socially interact.
- 3 Possess one or more common goals.
- 4 Are brought together to perform organisationally relevant tasks.
- 5 Exhibit interdependencies with respect to workflow, goals and outcomes.
- 6 Have different roles and responsibilities.
- 7 Are together embedded in an encompassing organisational system.

Other definitions provided here include some additional elements:

- 8 With complementary skills (Katzenbach & Smith, 1993).
- 9 Distinguishable (Salas et al, 1992); Have clear boundaries that distinguish members from non-members (Hackman, 2012); Recognise each other as members of the team (O'Leary et al, 2011).
- 10 Who see themselves and who are seen by others as an intact social entity (Cohen & Bailey, 1997); Intact social systems (Hackman, 2012).
- 11 Who manage their relationships across organisational boundaries (Cohen & Bailey, 1997).
- 12 Share the responsibility and reward (or penalty) for the outcomes (O'Leary et al, 2011); Members have collective, rather than individual, accountability (Hackman, 2012).
- 13 Have moderate stability (Hackman, 2012).
- 14 Self-organising (Humphrey & Aime, 2014).
- 15 Engages in regular reflexivity to review team effectiveness (Lyubovnikova et al, 2015).

If we examined more definitions of "teams" we would probably find even more ways of defining teams and more definitional elements.

It's important to note that there appears to be some confusion in defining what a team is and what characteristics a team may need to have to be effective (e.g., complementary skills, manage their relationships, share responsibility, self-organising, regular reflexivity). A group may clearly be a team even if it lacks complementary skills or rarely engages in regular reflexivity. It seems important to make a clear distinction between what a team is and how a team should be composed or behave in order to be effective.

Perhaps the multiple definitions and confusion reflect a lack of concern about definitions amongst researchers. Not being able to agree on what a phenomenon means and also continuously expanding its meaning by adding more and more elements makes researching that phenomenon more difficult. It also makes practice more difficult.

On the other hand, it may not reflect a lack of concern about definitions at all, but the diverse and sometimes hard-to-pin-down nature of teams discussed earlier.

2.2 WHAT IS NOT A TEAM?

One way of clarifying what a team is, is to consider what a team is not.

For a range of reasons these distinctions are both scientifically and practically important. Researching groups of people who are not a team will not tell us much about teams and team effectiveness. Managing groups of people who are not a team as though they are a team is not likely to be effective.

The idea of pseudo teams captures the idea that some teams are not really teams.

They have been defined as:

...a group of people working in an organisation who call themselves or are called by others a team; who have differing accounts of team objectives; whose typical tasks require team members to work alone or in separate dyads towards disparate goals; whose team boundaries are highly permeable with individuals being uncertain over who is a team member, and who is not; and/or who, when they meet, may exchange information but without consequent shared efforts towards innovation. - West & Lyubovnikova (2012)

It may be that pseudo teams are more common in organisations than teams. As discussed earlier, one reason why people label themselves or are labelled by others as team members may be connected to the romance of teams: because teams are viewed as a good thing it makes sense to call a collection of people a team and those within it team members.

Another related idea is the co-acting group:

...an individual holds co-acting group membership when they identify themselves as being a member of a team, but do not report interdependent working, shared objectives, or reflexivity. Such individuals are therefore more likely to work in parallel to their co-workers, often doing similar sorts of work but in a more discrete and independent manner, whereby each worker is held accountable for his/her personal output. - Lyubovnikova et al (2015)

Again, there is nothing wrong as such with these groups – but if they are not teams this has implications for the way they are composed and managed.

Is it really possible to draw clear distinctions between what is and what is not a team given the multi-element/criteria definitions of teams above and of non-teams here? Probably not.

Rather than attempting to neatly categorise all groups at work as either definitely teams or definitely not teams it may be more useful to consider the dimensions which differentiate teams and non-teams. These are four dimensions proposed to differentiate real teams from pseudo teams.

FOUR DIMENSIONS DIFFERENTIATING REAL TEAMS FROM PSEUDO TEAMS (FROM WEST & LYUBOVNIKOVA, 2012)

REAL TEAMS		PSEUDO TEAMS
Typical tasks require team members to work in a closely coordinated and timely manner towards common goals and objectives.	↔	Typical tasks require team members to work alone or in separate dyads towards disparate goals and objectives.
There are one or more clear shared team objectives that team members agree upon.	↔	There are as many different accounts of team objectives as there are team members.
Team members systematically review team performance and adapt future objectives and processes accordingly.	↔	Team members occasionally meet together to exchange information, often through obligation or habit, with no consequent shared efforts towards innovation.
Team members are clear about who is part of the team and who is not.	↔	Team boundaries are highly permeable, with individuals being unclear about who is part of the team and who is not.

In general, teams are not easy to define. However, several features of teams can help assess the extent to which, and in what ways, work groups function as a team.

2.3 TYPES OF TEAMS

In order to better understand teams and team effectiveness it is not only important to define what we mean by teams, but also to consider different types of teams:

...as one begins to examine the team literature, it becomes clear that the types of teams are as varied as the number of authors who have discussed them. - Salas et al (2005)

As discussed above, there are many definitions of teams, though they do share some definitional elements. It was suggested that this may be a consequence of the diverse and hard-to-pin-down nature of teams. Similarly, the varied types of teams identified by researchers may reflect the wide range of different forms teams can take.

There have been many attempts to develop taxonomies of teams. In their review, Wildman et al (2012) identified 17 such taxonomies. The largest of these proposed 14 taxonomic categories or team types (Devine, 2002) which is discussed below.

Sundstrom (1999), for example, identifies six types of work teams based on their function:

1. Production teams, such as manufacturing or assembly teams.
2. Service teams, such as maintenance and food services, repeated interactions with customers.
3. Management teams who work to plan, develop policy or coordinate organisational activities.
4. Project teams, such as those found in research and engineering, which bring experts together to complete a specific task within a defined period.
5. Action or performing teams, such as sports teams and surgery teams, who engage in relatively brief performances that are repeated under different conditions and which require specialised skills.
6. Parallel teams, which are temporary teams that operate outside normal work, such as employee involvement groups that provide suggestions or recommendations.

Devine (2002) created a taxonomy of 14 team types, based on seven contextual characteristics, which are used to draw distinctions between team types. As with the definitions of teams discussed above, it may be more useful to consider dimensions or descriptors along which teams can be categorised rather than identify distinct types of teams.

SEVEN CHARACTERISTICS OF TEAM CONTEXT WHICH CAN BE USED TO CATEGORISE TEAMS (ADAPTED FROM DEVINE, 2002)

CHARACTERISTIC		DESCRIPTION
1	Fundamental work cycle:	The smallest meaningful unit of collective activity for the team... the focal input–process–output cycle around which team activity is structured and the smallest unit of team performance that can be evaluated in relation to organisational effectiveness.
2	Physical abilities:	Some tasks depend primarily on cognitive activity and abilities. Others also require psychomotor and/or physical abilities (e.g., coordination, strength, stamina and flexibility) and the use of tools, instruments, movement in the physical environment and the manipulation of objects.
3	Temporal duration:	Refers to the length of time for which the work group exists. Some operate for predetermined finite periods of time called shifts, others continue until a particular mission has been satisfied (which may take hours, days, weeks or years), while still others operate indefinitely.
4	Task structure:	The degree to which member actions relate to outcomes in an understandable and predictable fashion. Task structure reflects the extent of agreement about what the group is supposed to accomplish, what steps are to be taken and in what order they are to occur.
5	Active resistance:	The presence of human opposition directly trying to prevent the team from accomplishing its goals, which can take the form of an individual or a competing team.
6	Hardware dependence:	The degree to which team activities are constrained by technological resources such as machines, tools or other specialised equipment. The term hardware here means resources that tend to be relatively scarce, subject to failure and difficult if not impossible to replace or substitute at short notice.
7	Health risk:	The likelihood and severity of human injury associated with errors in team performance.

A TAXONOMY OF TEAMS (DEVINE, 2002)

Using these contextual characteristics, Devine (2002) identifies 14 team types split into intellectual work teams (executive, command, negotiation, commission, design and advisory) and physical work teams (service, production, performance, medical, response, military, transportation and sports).

INTELLECTUAL WORK TEAMS	PHYSICAL WORK TEAMS
1. Executive: Diverse, high level organisation teams engaged in important yet ill-structured tasks. Deal with a variety of ambiguous situations that are not well understood and for which no standard operating procedures exist.	7. Service: Interact directly with customers to provide a good or service to the latter's specification. Focus on diagnosing customer needs, gathering requisite information and resources, and taking appropriate action to meet customer needs.
2. Command: Make critical organisation level decisions in real time by collecting and integrating information from a variety of...to determine appropriate action to be taken.	8. Production: Build or assemble a tangible product in a continuous, standardised fashion over extended periods of time, generally relying on sophisticated machinery, tools and equipment as well as timely coordination with external suppliers and distributors
3. Negotiation: Engage in competitive intellectual tasks in which group members represent the interests of larger entities and attempt to maximise the outcomes of their constituents.	9. Performance: Conduct elaborate behavioural sequences for the enjoyment of an audience. Their collective product is a series of coordinated movements and actions by team members.
4. Commission: Engage in special projects or investigations requiring judgments or plans. They exist for the duration of a particular mission.	10. Medical: Diagnosing the condition of patients and taking appropriate steps to improve their health. They operate under severe time constraints and team tasks are usually very structured, with the aid of standardised diagnostic protocols and procedures in a highly controlled operating environment
5. Design: Do hands-on work requiring creativity and/or technical innovation for an internal or external client. Often cross-functional.	11. Response: Physically move to the scene of an accident or a natural disaster, diagnose the situation and provide some form of rapid treatment or intervention.
6. Advisory: Investigate problems associated with the organisation's sociotechnical systems and/or search for ways to improve effectiveness. Typically cross-functional and operate outside the formal structures.	12. Military: Small, formal units that use lethal force (or the threat of it) to accomplish a variety of tasks associated with maintaining domestic order and ensuring national security.
	13. Transportation: Operate a specialised machine or vehicle (e.g., train, airplane or ship) to transport people or cargo from one place to another.
	14. Sports: Although generally included in broad categories pertaining to action and performance, sports teams differ in several important respects. This includes extremely well defined tasks where the collective goal is clear and shared, and elaborate rules define and constrain how the outcome is determined.

Considering these 14 types of teams (and the six types of teams Sundstrom (1999) discussed above) raises a number of issues:

- Many teams may be a mix of these team types and not neatly fit into one category. For example, a service team may also engage in service design and therefore have some features of design teams.
- Teams may change over time in response to task requirements and take on some characteristics of other team types before changing again. For example, an executive team may engage in command team type activities such as collecting and integrating information over the course of a task.
- Various technologies may change the nature of these teams. For example, response teams may not need to move physically to the scene of an accident or disaster if it can be dealt with remotely or if the accident isn't in a physical location (e.g., cyberspace).
- Some team types are about the nature of team tasks and others are about the context or setting in which the team works.
- Identifying different types of teams would seem to be an important goal, though it's not clear how practically useful such typologies are likely to be in helping set up and manage teams.

Reflecting some of these issues, Wildman et al (2012) argue that team taxonomic research suffers from two key limitations:



First, many taxonomies claim to classify teams into mutually exclusive classes, yet when examined closely, are not. Second, some of the most well-known taxonomies are descriptive of various tasks teams engage in, but not of the holistic team-level properties that define different types of teams...we suggest that to truly describe teams and the work that such teams are often formed to address, that task type and team type must be kept conceptually separate.

Drawing on existing taxonomies, they identified seven types of tasks that can be done in teams. Note that these are types of tasks and not types of entire teams because “teams almost invariably engage in multiple tasks simultaneously or over time to achieve their mission or goals” (Wildman et al, 2012):

1. Managing others: Directing, supervising or overseeing the work of others in an authoritative role.

2. Advising others: Providing professional support, such as expert assistance or advice, in a consultative role where the advisor lacks authority over those whom he or she is advising.

3. Human service: Social interaction where an individual or team is providing a good or service to another party.

4. Negotiation: Social interaction in which two or more parties in conflict seek to resolve differences and reach agreement.

5. Psychomotor action: Technical and/or motor functioning requiring psychological processing to perform calculated or elaborate movements, including the manipulation, operation or use of a product, machine or object, or a task that is achieved by engaging in psychomotor action of some sort.

6. Defined problem solving: Problem solving tasks with predetermined or conclusive solutions or correct answers.

7. Ill-defined problem solving: Problem solving tasks lacking predetermined or conclusive solutions or correct answers, such as idea, plan or knowledge generation.

Having identified distinct types of tasks that teams may perform, they then go on to identify higher-level attributes of work teams which they selected according to three criteria:

1. The attribute must be “unique holistic properties of team and not of an individual or a task” (Wildman et al, 2012). For example, interdependence or leadership structure can only occur at a team, not individual level. Additionally, characteristics such as negotiation or military are properties of a task or context rather than a team.
2. The attribute had to appear in at least two of the published taxonomies to ensure it was based on existing theory.
3. The attribute should allow for teams to be categorised into discrete and mutually exclusive categories at one particular point in time (as previously discussed, teams change over time).

Hence, this taxonomy attempts to distinguish between what teams do (described by the seven types of tasks) and how they do it (described by the six higher level attributes of teams).

INTEGRATED SET OF SIX HIGHER LEVEL ATTRIBUTES/CHARACTERISTICS OF WORK TEAMS (WILDMAN ET AL, 2012)

CHARACTERISTIC	DESCRIPTION	DISCRETE CATEGORIES
Task interdependence	The extent to which outcomes of the team members are influenced by, or depend on, the actions of others.	Pooled, sequential, reciprocal, intensive
Role structure	The extent to which roles are fundamentally different and therefore not interchangeable or each person is capable of performing every component.	Functional, divisional
Leadership structure	The pattern, or distribution, of leadership functions such as setting direction and aligning goals among the members of the team.	External manager, designated, temporary, distributed
Communication structure	The pattern, or flow, of communication and information sharing among the members of the team.	Hub-and-wheel, star, chain
Physical distribution	The spatial location of the team members in reference to one another.	Colocated, distributed, mixed
Team life span	The length of time for which the team exists as a functional, active unit.	Ad hoc, long term

These two taxonomies by Wildman et al (2012) describing what teams do (their function) and their higher level characteristics (how they are organised) represent an attempt to clarify the sometimes confusing nature of the many team typologies that have been developed over many decades. Again, this is likely a reflection of the sheer diversity of team tasks and team characteristics, rather than a reflection of the abilities of researchers.

As discussed, understanding what teams are in relation to types is important for both research and practice. We will return to the practical implications of these typologies in the final section of this report.

2.4 MULTITEAM SYSTEMS, MULTIPLE TEAM MEMBERSHIP AND TEAM BOUNDARY BLURRING

Most of the definitions of teams and team types discussed so far make the mostly implicit assumption that a team is bounded and sits within a wider organisational context. However, it may be that the wider organisational context includes other teams which work together. Another assumption often made is that individual employees are members of a single team, yet they may be members of several teams.

Multiteam systems⁴ have been defined as “two or more teams that interface directly and interdependently in response to environmental contingencies toward the accomplishment of collective goals” (Mathieu et al, 2001).

Drawing on Mathieu et al (2001), Zaccaro et al (2020) identify key characteristics of multiteam systems:

- Consist of multiple component teams.
- Each works with at least one other at a high level of interdependence.
- Component teams have distinct proximal (near) goals but they share distal goals (related to organisational objectives), hence the need for interdependence.
- Multiteam systems may be composed of teams from different partner organisations.

One key characteristic of a team may be that it has a high degree of interdependence with one or more other teams (akin to interdependence between individual team members). This has implications for research (such as understanding what affects multiteam system effectiveness as this is likely to be different from drivers of single team performance) and for practice (for example, within a multiteam system the design of a single team will likely need to consider the design of other teams where there is a high degree of interdependence).

Multiple team membership on the other hand refers to situations in which individual team members are also members of other teams. It seems likely that such arrangements are quite common in some organisational contexts.

⁴For reviews of multiteam systems see, for example, Zaccaro et al (2020), Shuffler et al (2015), Shuffler & Carter (2018), Wagner (2024).

In order to understand the potential effects of multiple team memberships we need to know more about such memberships. How many teams do employees belong to? How is time allocated across these teams? And how different are the teams in relation to tasks, structure and member characteristics? Recent reviews (Margolis, 2020; Rishani et al, 2024) suggest that the impact of multiple team memberships depend on the nature of these memberships.

A related concept is team boundary blurring (e.g., Handke, 2026; Mortensen & Haas, 2018), which can occur for a number of reasons including team fluidity (team member changes), team overlap (multiple team membership) and geographic dispersion.

2.5 REFLECTIONS ON TEAM DEFINITIONS AND TEAM TYPOLOGIES

There are multiple definitions of teams and multiple team typologies. Many of these are based on assumptions about what teams are (and are not), which may not always be justified. For example, the notion that a team has clear boundaries makes sense initially until we consider multiple team memberships and the implications of this for the clarity of team boundaries.

It might be tempting to conclude that it is therefore impossible to define teams. A more reasonable conclusion is that the continuing scientific discussion about what teams are reflects the diversity of team forms and the contexts in which they work. What this means for team research and practice is that we need to take care that the definitions and team types we use are accurate reflections of the nature of the particular teams we are working with.

CRF convened a half-day workshop, Work Psychology Network: Teams and Team Effectiveness, for HR and organisational psychology practitioners to discuss the key findings from the research. At the event, participants shared the following reflections:

- Many participants related to the idea of the “romance” of teams, while also recognising the less positive aspects of teamworking. There seemed to be some agreement that organisations are not always particularly good at creating and managing teams.
- The ideas of pseudo-teams and co-working teams appeared to resonate with participants. Discussion focused on the pros and cons of creating pseudo-teams, including the sometimes well-intentioned practice of putting people into “teams” to help them feel they belong. In the words of one delegate, describing non-teams as “teams” is “lazy labelling”.
- Questions were raised about whether defining teams and understanding different types of teams can sometimes seem like a waste of time. On the other hand, these distinctions may be important when considering how tasks and work are best designed. Questions such as “is this really teamwork?” or “what type of team might be best suited to these tasks?” require some understanding of what “team” means.
- Psychological safety was mentioned as one way of building team effectiveness. However, Prof. Rob Briner highlighted cautioned that, while the idea of psychological safety seems potentially promising, it is a very broad term and we still do not know much about how to create it. It is also only one intervention among hundreds that

organisations could be implementing. Rather than looking for a single alternative or solution, organisations should adopt an evidence-based approach, asking: “What is the issue we are dealing with? What is causing it? What can we do about it?”

CRF Partners APS shared the following reflections on team effectiveness:

- Amidst all the activity around team effectiveness, it is easy to lose sight of the team’s purpose. There is a reason why they have been brought together (or will be) – a project, problem, issue or opportunity. Then, organisations can analyse what skills, capabilities and personalities are needed, and whether there is any evidence (such as data from assessments) to support this.
- For very senior teams, effectiveness is not only about how the team itself functions, but how its purpose and decisions connect with the wider organisation. If people further down the organisation cannot articulate or align with that purpose, there is likely to be a disconnect.
- Teams should ask what evidence is informing their view of effectiveness, including the team’s current reputation, what that reputation needs to be and whether the team is aware of any gaps. Tools such as 360 emotional intelligence assessments can help people understand and adapt their behaviour.
- Simple diagnostic questions, like “I have clear goals and objectives” and “I receive all the information I need to carry out my work” can be powerful. They support the leader in better understanding the climate in the team.

3. WHAT IS TEAM EFFECTIVENESS?

Generally speaking, effectiveness refers to the extent to which employees are producing desired outcomes or outputs. In other words, effectiveness refers to what we might sometimes also describe as work performance.

Defining and measuring individual work performance is not always straightforward. Defining and measuring team performance brings with it additional challenges given the collective nature of team outputs.

In addition, as discussed in a previous Work Psychology Network report, [Predicting Performance at Work](#), there are potentially extremely important distinctions in how work performance is framed. Performance can be understood in two ways: whether desired outcomes are achieved, or whether people show the behaviours likely to lead to those outcomes.

In situations where employees have limited or little control over outcomes the most important measure of effectiveness or performance is the extent to which employee are engaging in behaviours which are likely to produce the outcome. In the case of teams working on long-term and complex projects it may be even more likely that they have limited control over outcomes.

Some of these issues are reflected in definitions of team effectiveness.

3.1 DEFINITIONS OF TEAM EFFECTIVENESS

While it is the case that effectiveness (i.e. producing desired outcomes) generally overlaps considerably with performance, there can be important differences. One reason for this difference is that, as previously mentioned, when employees have limited control over outcomes, engaging in outcome-related behaviours is probably a more accurate indication of employee or team performance.

In the specific case of team effectiveness and performance there is another reason why the differences between them matter. Often, when people discuss or evaluate team performance they are referring to the way team members work together and their behaviours rather than outcomes. In team sport, for example, a team may be viewed as having performed well but lost the match and therefore been ineffective in achieving the desired outcome.

Team performance often means team processes, whereas team effectiveness tends to refer to outcomes or outputs. This is reflected in most - but not all - definitions of team effectiveness.

SOME DEFINITIONS OF TEAM EFFECTIVENESS

Team effectiveness is context specific, and although at an abstract level we may be able to refer to the efficiencies of airline cockpit, surgical, knowledge management, pharmaceutical sales, forensic accounting, and college basketball teams, clearly the manifestations and indicators of those efficiencies.	Kozlowski & Ilgen (2006)
...whatever the group produces is at least acceptable to those who receive, review, or use it; that the group becomes a more competent performing unit over time; and that the group experience contributes positively to individual members' learning and development.	Hackman (2012)
...the result of a judgment process whereby an output is compared to a subjective or objective standard. Essentially, the results of the team's inputs and processes are evaluated. Therefore, to ensure accuracy, we must match the outcome with the correct methods of measurement.	Salas et al (2017)
Last, team performance effectiveness is an assessment of the quality or quantity of team performance outcomes in relation to specified standards (i.e., an overall evaluation of how well the team performed; Salas et al., 2008). Measures of team performance effectiveness include outputs such as error rates, compliance, completion time, team member satisfaction and viability, and learning.	Rosen & Dietz (2017)
...team effectiveness [is considered] broadly in terms of two types of outcomes: (a) tangible outputs...of team interaction and (b) influences on team members...Tangible outcomes can be further classified into three types: (a) productivity, (b) efficiency, and (c) quality...The second general category of team outcomes can be defined in terms of influences on members. More generally, this category can be thought of as including collective or individualistic outcomes...[the] collective level of analysis includes shared experiences, such as cohesion or psychological safety. In contrast, the individual level outcomes refer to attitudes, reactions, learning, and behaviours of individuals.	Mathieu et al (2019)

Points to note about some of the definitions of team effectiveness are as follows:

- What team effectiveness is considered to be (and therefore how it is assessed) depends on the context.
- Team effectiveness is about whether a team's outputs are acceptable compared to a standard set by others. Interestingly, these definitions do not consider that these outputs should contribute to organisational objectives.
- Team effectiveness is also about team processes (e.g., learning), not just outcomes.
- Team effectiveness can also include phenomena considered here to be team outputs such as psychological safety or team member satisfaction.

There is some variation in these definitions but most seem to agree that team processes - and not only team outcomes - are important for understanding team effectiveness.

3.2 MEASURING TEAM EFFECTIVENESS AS TEAM PERFORMANCE PROCESSES

Because team effectiveness, as defined by outcomes or outputs, is highly context-specific, there is no single general way to measure it. Outputs need to be clearly specified, including the nature of the output, what quality is expected, when the output needs to be delivered and, ideally, the output's relevance to organisational objectives. As is the case for any measurement of outcomes or outputs, these need to be valid and reliable measures which can only be determined in context.

However, it is slightly more feasible to consider how to assess team effectiveness if we define it as team performance processes. What is team performance?

“

The first step to understand team performance is to identify what characteristics the team possesses starting out. Examples of these inputs are individual motivation, attitudes, and personality traits...Team-level inputs include power distribution, cohesion, and team resources...The type of task and how complicated it is also play a role. Next, we have to identify the processes, or the actions that occur when the team is working together to complete a task... Though assessing team performance is challenging, we do it because team performance is linked to team effectiveness. - Salas et al (2017)



Team performance represents the sum of both taskwork and teamwork activities. This means that measures of team performance capture in a collective sense what the team does in relation to their personal and team goals. - Rosen & Dietz (2017)

Both of these definitions emphasise that team performance is about team processes or how teams actually behave. How can team performance processes be measured?

In their overview of team performance measurement Salas et al (2017) make a number of observations, some of which are described in the table on the following page.

Q&A

The below summarises questions asked at CRF's workshop, Work Psychology Network: Teams and Team Effectiveness.

Q: Many companies now share what they think is the secret to their team performance. Has this made the topic of teams more complex?

A: There is now a lot of public discourse about how to manage teams, including Google's research into teams, and organisations talk about teams a great deal. This can get in the way of effective practice, as it implies there is a single best way of doing things, which there isn't. For a single alternative or solution, organisations should adopt an evidence-based approach, asking: "What is the issue we are dealing with? What is causing it? What can we do about it?"

Q: What about the role of team dynamics, which is not discussed in the research?

A: Group dynamics can affect team effectiveness and may be particularly relevant in areas such as team coaching, where the focus might be on how dynamics contribute to or detract from team performance. We need to remember that, because teams are such a broad area, there are many ways of looking at team effectiveness.

Q: Many organisational practices, such as individual incentives, often undermine team effectiveness. If we want to create a more team-based culture, should these practices be more team-based?

A: This issue is outlined in the seminal research paper, "[On the folly of rewarding A, while hoping for B](#)". We often want people to engage in teamwork and collaboration, but we evaluate performance individually and reward people as individuals. Working out how to reward team activity effectively is much more difficult, which is why organisations often fall back on individual measures. While it may be possible to reward both teams and individuals, this depends on how clearly we can specify individual behaviours and understand how they contribute to team processes.

OBSERVATIONS ON THE MEASUREMENT OF TEAM PERFORMANCE

(ADAPTED FROM SALAS, 2017)

OBSERVATION		DESCRIPTION
1	It is best to capture the ABCs - attitudes, behaviours and cognitions:	A great many ABCs are potentially relevant to team performance. Choose a manageable number of the most important. Team orientation, for example, may be an important attitude. Several team behaviours – such as communication, coordination and cooperation – are related to team performance. Shared mental models are also a key aspect of team cognition.
2	Context and purpose of measurement matter:	As with all measurement, purpose should drive what is measured and how it is done. Standard and off-the-shelf measures need adjustments and adaptations to fit purpose and context.
3	Behavioural markers matter:	Specific behaviours and their markers are paramount in team performance measurement. What are the specific behaviours of interest? How do they map onto constructs? How can their markers be embedded in the team environment?
4	It is best to triangulate:	Given the complexity of assessing team performance it is preferable to always have more than one data source.
5	Team size matters:	In general, larger teams can have more performance problems and therefore team performance measurement for larger teams needs to take account of this. For example, ABCs related to coordination and sub-teams will be more relevant to larger teams.
6	Subject matter experts can assess only four or five constructs:	Subject matter experts have a good understanding of the team task and team context and are an important part of team performance assessment. However, they probably cannot reliably rate more than a few constructs as they are intercorrelated and therefore difficult to tell apart.
7	Measurement of teamwork is assessing a dynamic phenomenon:	Team performance is episodic and dynamic and team performance measurement needs to take this into account. A good starting point is detailed observation to understand when and how team performance happens and, therefore, when and how assessments should take place.

Assessing team performance as team processes which are likely to lead to desirable outcomes can seem complicated and laborious. Much work psychology theory and evidence around teams and team effectiveness comes from contexts such as the military, healthcare and aviation. In such contexts, highly important and desirable team outcomes mean not only the successful completion of a task but also the avoidance of accidents, injury and death.

Given the importance of team outcomes in such settings, understanding and measuring those team processes that lead to or prevent such outcomes is also taken extremely seriously. While the same principles of team performance measurement apply in other contexts, it may not be necessary to assess team processes with the same level of detail.

It is not always easy to understand individual employee effectiveness, both in terms of individual performance outcomes and the processes and behaviours that make it more likely to achieve those outcomes.

It is even less straightforward to understand team effectiveness (i.e. team outcomes and the team processes likely to lead to such outcomes), given the complexities of teams and the interdependencies of team members. This does not mean it is not possible to assess team effectiveness, but these complexities and the context needs to be taken into account.

As noted by Mathieu et al (2008), "The criteria [team effectiveness or outcomes] side of the team effectiveness framework continues to be the least well specified."

4. INFLUENCES ON TEAM EFFECTIVENESS

The list of things that influence team effectiveness is very long indeed. This should come as no surprise given: (a) the huge diversity in the purposes and forms of teams; (b) that they are composed of individuals working interdependently to achieve outcomes; and (c) that they are embedded in a wider organisational context.

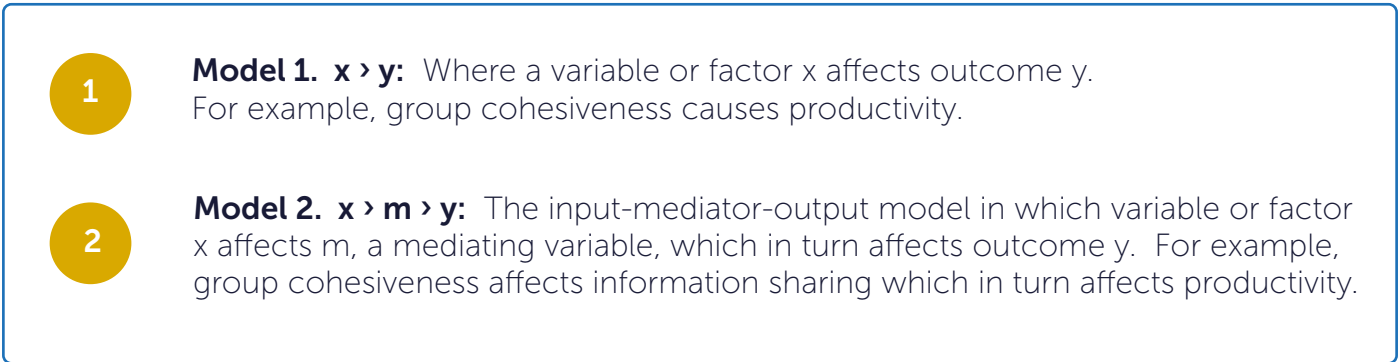
When researching or working with teams, it is essential to bear in mind that team effectiveness is determined by a great many factors. Focusing on just one or two of these factors is probably not useful, particularly in the absence of a reasonable understanding of the team, its purpose and its context.

In this section we:

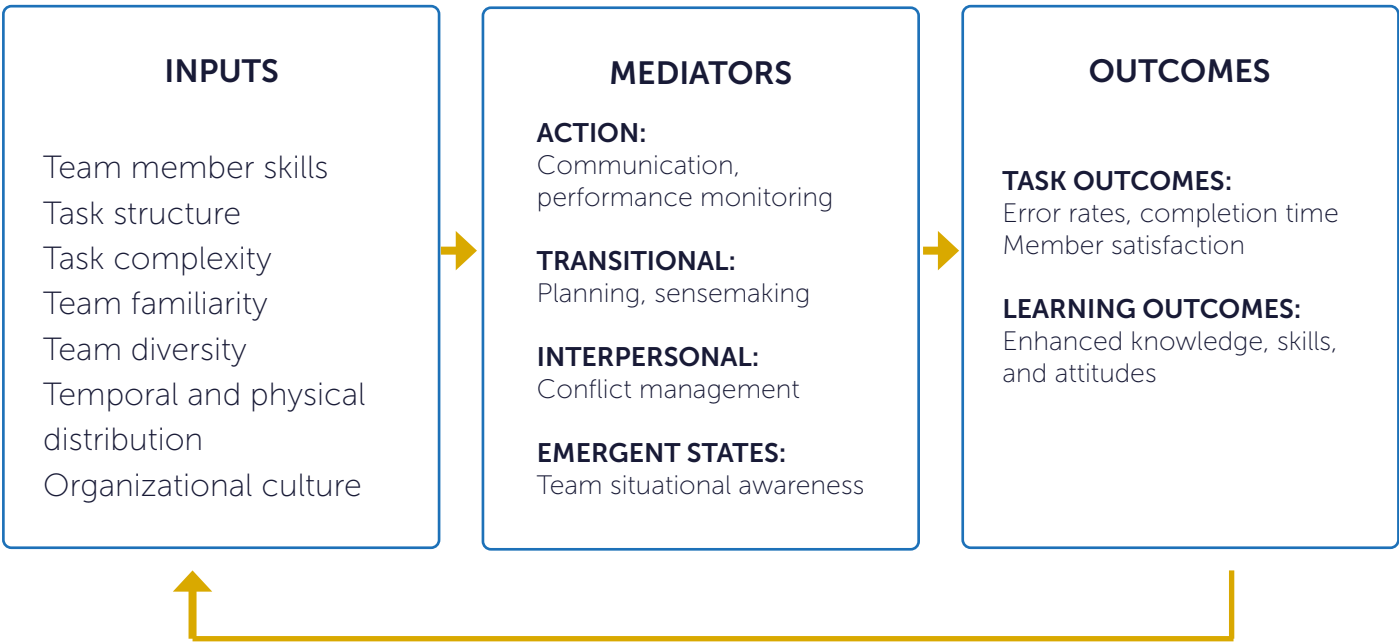
- Consider some models of team effectiveness which attempt to describe how team outcomes are produced.
- Provide a longer list of factors that are thought to influence team outcomes.
- Discuss several attempts to narrow down this long list of factors to a more manageable number of the key drivers of team effectiveness.

4.1 MODELS OF TEAM EFFECTIVENESS

The earliest of these models have been around for almost a century and have changed somewhat over the decades to become more elaborate. Hackman (2012) charts this history, starting with the simplest version of the relationship between a team input (**x**) and team output (**y**):



OVERVIEW OF THE INPUT–MEDIATOR–OUTPUT MODEL (ROSEN & DIETZ, 2017)

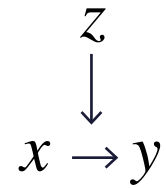


These mediators are also sometimes considered specifically to be group processes – the input-process-output model.

Both these mediator models suggest that inputs to the team do not have a direct impact on outcomes, but instead affect a mediating variable which in turn affects the outcome. However, it could also be the case that the input (x) simultaneously affects both the mediator (m) and the outcome (y).

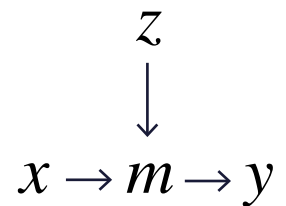
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Model 3. $x \rightarrow y$ depending on moderator z : Moderation models suggest that input x affects output y depending on the presence or level of a third variable, moderator z. For example, team diversity affects team performance depending on the level of task complexity.



4

Model 4. $x \rightarrow m \rightarrow y$: Input variable x affects m, a mediating variable, which in turn affects outcome y. The level of a fourth variable, moderator z, then affects the extent to which mediator m accounts for the relationship between x and y. For example, group cohesiveness affects information sharing which in turn affects productivity, but the extent that information sharing acts as mediator depends on the extent the team is engaged in knowledge work.



Models of team performance have continued to become more and more elaborate. In reflecting on the development of these models, Hackman (2012) concludes:

“

With every methodological advance, it seems, things become both more complex and more distant from the phenomena. That which started so simply, with an analysis of direct input–output relationships, now risks sinking of its own weight, of becoming decreasingly useful to both scholars and practitioners. It may be time, therefore, to question the appropriateness of the cause–effect models that have pervaded group research from its inception and to consider an alternative way of construing group behaviour and performance.

He argues that we need to move away from cause-effect models of team effectiveness:



...groups are social systems. They redefine objective reality, they create new realities ...and they evolve their own purposes and strategies for pursuing those purposes. Groups are not mere assemblies of multiple cause-effect relationships; instead, they exhibit emergent and dynamic properties that are not well captured by standard causal models.

We will return to some of these ideas later when we discuss ways of managing team effectiveness.

There is a very wide range of team inputs, processes and outcomes that may occur and, as discussed in the introduction, teams are unstable and dynamic by nature. Therefore, it makes sense that cause-effect models of team effectiveness, even elaborate ones, will be quite limited in their ability to explain team effectiveness.

4.2 WHAT AFFECTS TEAM EFFECTIVENESS?

As mentioned earlier, a vast number of influences on team performance have been studied. Some of these are listed in the table on the following page.

EXAMPLES OF SOME OF THE INFLUENCES ON TEAM EFFECTIVENESS (SOURCES INCLUDE MATHIEU ET AL, 2008; MATHIEU ET AL, 2019)

Cohesion (social, task)	Personality (Big Five, achievement orientation, dependability, assertiveness, locus of control)
Collective cognition	Planning
Collective leadership enactment	Preference for teamwork
Competences (knowledge, skills, abilities)	Psychological safety
Conflict management	Relationship conflict
Coordinating team members	Roles
Creative processes	Shared cognition
Crew resource management	Shared leadership
Diversity (demographic, functional background, personality, and attitudes/values, complex combinations)	Shared mental models (technology, task, team interaction, team)
Emotional intelligence	Skill and authority differentiation
Empowerment (psychological and structural)	Strategic consensus
External team leadership (teamwork-, taskwork-, person-focused)	Task accomplishments
Feedback	Task conflict
Formulating strategies	Team adaptability
Goal orientation	Team building
Goal specification	Team charters
Human resource systems	Team climate

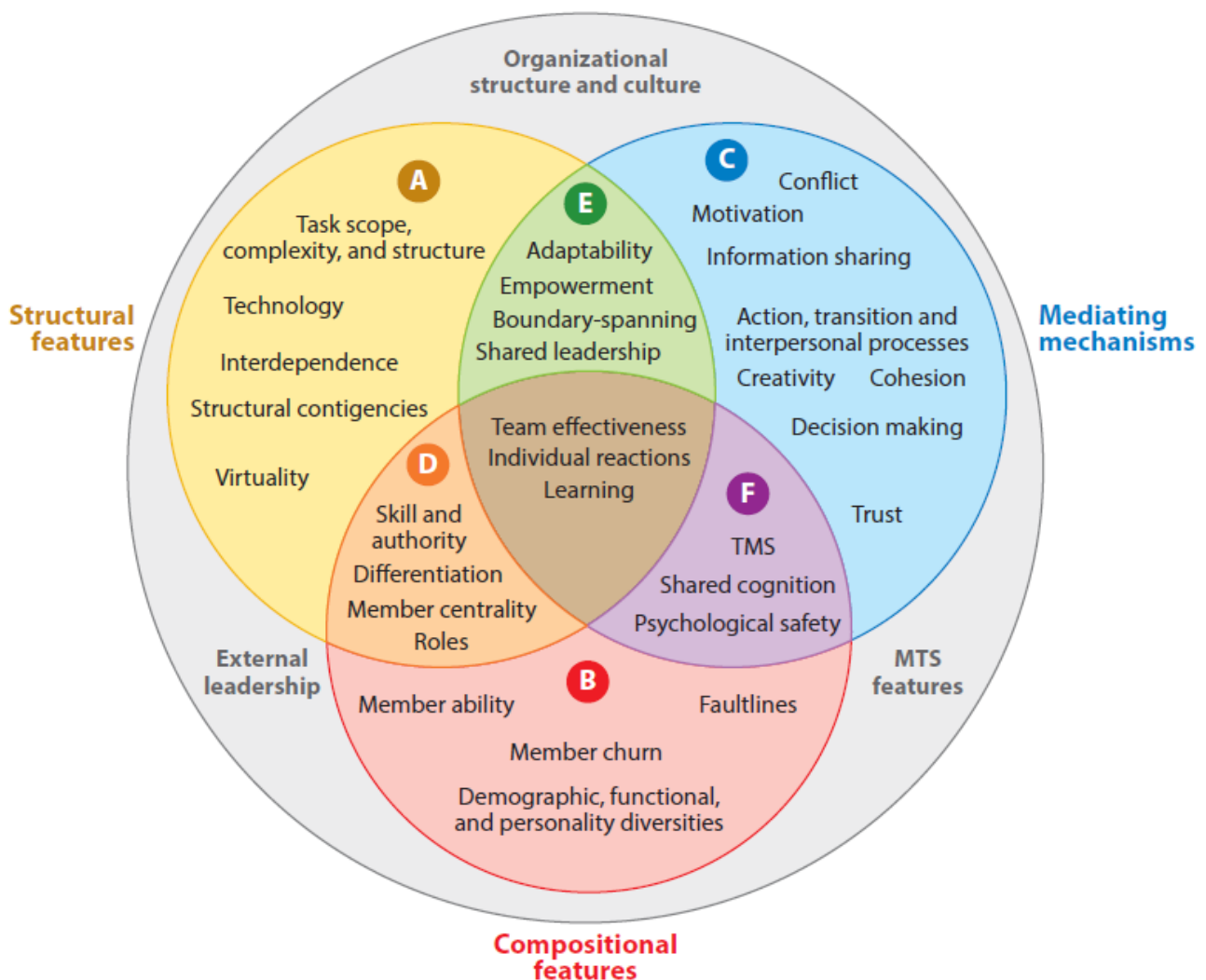
Informational diversity	Team composition
Interdependence (input, output, process, task, goal, informational)	Team confidence
Interpersonal trust	Team debriefing
Member centrality	Team efficacy
Minority dissent	Team learning
Mission analysis	Team learning orientation
Monitoring	Team longevity
Monitoring progress and systems	Team potency
Motivation and confidence building	Team size
Multiteam system coordination	Team structure (functional, divisional)
National culture	Team training
Openness climate	Teamwork orientation
Organisational citizenship behaviour	Technologies
Performance plans	Training
	Transactive memory systems
	Trust
	Virtuality
	Work design

There have been various attempts to organise or categorise these many influences. One example can be found in Mathieu et al (2019). Their framework describes six regions.

The first three correspond to the input-mediator-output model:

- **Region A:** Structural features (inputs).
- **Region B:** Compositional features (inputs).
- **Region C:** Mediating mechanisms.
- **Region D:** Features that are both structural and compositional.
- **Region E:** Structural features that are also mediating mechanisms.
- **Region F:** Mediating mechanisms that are also compositional features.

CO-EVOLVING TEAM COMPOSITIONAL AND STRUCTURAL FEATURES, MEDIATING MECHANISMS, EXTERNAL INFLUENCES AND OUTCOMES (MATHIEU ET AL, 2019).



As mentioned at the start of this section, given the diversity of teams, the nature of teams and their contexts, it is not surprising there are so many influences on team effectiveness. The implication, for both research and practice, is that we need to somehow consider this wide range of possible influences when we try to understand or manage teams, rather than focus on just a few.

4.3 FRAMEWORKS DESCRIBING A NARROWER RANGE OF THE KEY INFLUENCES ON TEAM EFFECTIVENESS

Several attempts have been made to reduce the long list of possible influences down to a more manageable number. They will be described briefly here and in more detail in the next section on improving team effectiveness.

For example, Hackman (2002) suggested a number of conditions:

"Rather than specify the main causes of group productivity (or provide a long list of all possible causes), I have proposed a small set of conditions that, when present, increase the chances - but by no means guarantee - that a group will develop into an effective performing unit."

These six conditions are:

1. Real team.
2. Compelling purpose.
3. Right people.
4. Clear norms of conduct.
5. Supportive organisational context.
6. Team-focused coaching.

Similarly, Salas et al (2005) suggested that there is a Big Five of teamwork (akin to the Big Five in personality) as follows:

1. Team leadership.
2. Mutual performance monitoring.
3. Backup behaviour.
4. Adaptability.
5. Team orientation.

The "Big Five" in teamwork differs from other taxonomies and models already available by offering a practical yet inclusive taxonomy that only includes components that most heavily affect team performance and that are found in almost all teamwork taxonomies.

They also suggest that three "supporting and coordinating mechanisms are needed to meld together the value of each of the five factors":

1. Shared mental models;
2. Mutual trust;
3. Closed-loop communication.

Some years later, in another attempt to narrow down the range of influences on team effectiveness, Salas et al (2015) proposed a set of “critical considerations [which] are the summation of a wide range of teamwork literature accumulated over the past several decades.”

These are:

1. Cooperation
2. Conflict
3. Coordination
4. Communication
5. Coaching
6. Cognition

They also suggest three influencing conditions (1. Composition; 2. Context; 3. Culture) which “are not the attitudes, behaviours, and cognitions that occur within the team (i.e., teamwork), but rather are the factors that shape the manner or degree to which teams engage in teamwork.”

It seems sensible and useful to take the very large set of influences on team effectiveness and produce a shorter, more usable list of those that are most important.

However, this raises a number of questions:

- Given the quantity and quality of the available scientific evidence, to what extent is it even possible to produce a reliable list of the most important influences on team effectiveness?
- What is the exact meaning of the items on these shorter lists? In many cases they appear not to be specific influences on team effectiveness, but labels for categories of influencing factors.
- Given the diversity of team types, purposes and contexts, is it likely that these key influences apply to all or most teams?
- What are the costs and benefits for research and practice of reducing the very large number of known influences on team effectiveness to relatively few?

In spite of these limitations, organisations still need to consider how they can manage teams and improve team effectiveness. We now consider how this can be done.

5. CREATING AND IMPROVING TEAM EFFECTIVENESS

There is a great deal of work psychology theory and evidence about teams and team effectiveness. For many (mostly) valid reasons it is not necessarily clear how we can apply this theory and evidence directly to practice. Like many other areas of work psychology, but even more so in the case of teams, there is no simple recipe or straightforward formula for us to follow. How could there be?

What is clear, however, is how we can approach the management of team effectiveness in a way that is most likely to be effective.

This is a stepped approach in which the order we take the steps is important:

1. Tackle and remove misconceptions about teams and team effectiveness which get in the way of attempts to improve team effectiveness.
2. Create awareness of the most common mistakes made when managing teams and how they can be overcome.
3. Set the conditions for team effectiveness before the team is created.
4. If something appears to be going wrong, consider ways of fixing the problems.

We will discuss each of these in turn.

5.1 DEAL WITH MISCONCEPTIONS ABOUT TEAMS

There are many misconceptions about how to manage teams – just as there are misconceptions about almost every aspect of human behaviour at work. There have been several attempts to identify and correct these misconceptions.

One such attempt is from Hackman (2011), who identifies six misconceptions and counters each with a more accurate conception.

MISCONCEPTIONS AND MORE ACCURATE CONCEPTIONS ABOUT TEAMS AT WORK (ADAPTED FROM HACKMAN, 2011)

Misconception 1: Harmony helps.	Smooth interaction among members avoids time-wasting debates about how best to proceed. When conflict is focused on the work itself and is well-managed, it is beneficial for the team.
Misconception 2: It's good to mix it up.	New members bring energy and fresh ideas to a team. Without them, members risk becoming complacent and inattentive. The longer teams stay together the better they perform.
Misconception 3: Bigger is better.	Larger groups have more resources to apply to the work and including members from all relevant constituencies increases the chances that whatever is produced will be accepted. Larger groups are harder to coordinate and more likely to produce social loafing. Smaller teams are more efficient.
Misconception 4: Face-to-face interaction is passé.	Powerful technologies for communication and coordination mean teams can work much more efficiently at a distance. Face-to-face contact is important. For distributed teams this can be done when the team is launched, around halfway through the team's work and when the work is completed.
Misconception 5: It all depends on the leader.	The personality, behaviour or style of the leader is the most important driver of team effectiveness. Hands-on leader activities can make a difference but the most important things leaders do are creating conditions that help members manage themselves, launching the team well and engaging in coaching and education.
Misconception 6: Teamwork is magical.	All one has to do is gather up some really talented people and tell them in general terms what is needed - the team will just get on with it. It takes careful thought and preparation to set up a team for effectiveness.

In addition to these particular misconceptions, those responsible for establishing or leading teams, as well as team members themselves, may have a range of other assumptions or conceptions about teams and team effectiveness. A crucial first step to creating and improving team effectiveness is therefore to ensure we make our assumptions and conceptions explicit and check their accuracy.

5.2 AVOID THE MISTAKES ORGANISATIONS MAKE WITH TEAMS

In creating and managing teams we may make many mistakes. Some of these are based on the misconceptions discussed above. Being more aware of the types of mistakes that can be made potentially helps us to avoid them or, if they have already been made, to consider ways in which we can rectify the situation.

Hackman (2002) describes six such mistakes and the conditions that need to be put in place to avoid mistakes.

MISTAKES MADE WITH TEAMS AND HOW TO AVOID THEM (ADAPTED FROM HACKMAN, 2002)

Mistake 1: Use a team for work that is better done by individuals.	Check this first using job analysis and ensure the task is one that is fully appropriate for performance by a team.
Mistake 2: Call the performing unit a team but really manage members as individuals.	Ensure the team is an intact performing unit whose members perceive themselves as a team and that others deal with as such.
Mistake 3: Fall off the authority balance beam.	It is important for leaders to achieve a balance between the authority they give to the team and withholding it for other parts. Ensure the team has a clear, authoritative and engaging direction.
Mistake 4: Dismantle existing organisational structures so that teams will be fully "empowered" to accomplish the work.	Ensure that the structure of the team - its task, composition and core norms of conduct - promotes rather than impedes competent teamwork.
Mistake 5: Specify challenging team objectives, but skimp on organisational supports.	Make sure the organisational context provides support and reinforcement for high team performance through policies and systems that are specifically tuned to the needs of work teams.
Mistake 6: Assume that members already have all the skills they need to work well as a team.	Make plenty of expert coaching available to the team at those times when members most need it and are ready to receive it.

One way of using this list is to check whether mistakes in designing and managing teams are about to be - or have already been - made. If mistakes are about to be made there are suggestions here about how we can avoid making them. If mistakes have already been made, it's worth checking if these mistakes have led to any current problems seen in the team and whether we can take remedial action to fix them (see later in this section for more about remedial action).

5.3 SET THE CONDITIONS FOR TEAM EFFECTIVENESS

Once we have developed a reasonable awareness of the misconceptions we may hold about teams and some of the common mistakes made in relation to creating and managing teams, we can then go on to consider how we set the context or conditions for team effectiveness.

Hackman (2002, 2012) suggests that the idea of setting conditions is rather different from the usual ways of thinking about and managing teams:

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To think about the conditions within which groups chart their own courses is very different from conventional scholarly models (in which the attempt is to link causes tightly to effects) as well as from action strategies that derive from those models (in which practitioners attempt to manage team processes more or less continuously in real time). - Hackman (2002)

In other words, setting conditions isn't about assuming or claiming clear and strong links between potential causes of team effectiveness and outcomes. Rather it is about putting in place conditions which will allow teams to manage themselves. It's also not about practical strategies which seek to constantly adjust or tweak the causes of team effectiveness:

The implications for leaders and members of work teams are clear. Their first priority should be to get in place the basic conditions that foster team effectiveness. - Hackman (2002)

An analogy may be found in how one constructs conditions and contexts in schools that are likely to increase the chances children will learn, develop and learn how to learn. There are many single causes of children's learning and development. Rather than focusing on all of these or constantly adjusting them over time, it may be more effective to put in place the fundamental conditions in which learning and development take place.

HACKMAN (2002) – CONDITIONS FOR TEAM EFFECTIVENESS

1. Real team	Real work teams are intact social systems whose members work together to achieve a common purpose. They have clear boundaries that distinguish members from nonmembers. They work interdependently to generate a product for which members have collective, rather than individual, accountability. And they have at least moderate stability, which gives members time to learn how to work well together.
2. Compelling purpose	A compelling purpose energizes team members, orients them toward their collective objective, and fully engages their talents. Purpose has high priority when establishing a team because so many other design decisions depend on it—how the team is structured, the kinds of organisational supports that are needed, and the type of coaching by team leaders that will be most helpful.
3. Right people	Well-composed teams have the right number and mix of members, each of whom has both task expertise and skill in working collaboratively with others. And they are as small and as diverse as possible—large size and excessive homogeneity of membership can cripple even teams that otherwise are quite well designed.
4. Clear norms of conduct	Norms of conduct specify what behaviors are, and are not, acceptable in a team. Having clear, well-enforced norms greatly reduces the amount of time a team must spend actively managing member behavior. The best norms promote continuous scanning of the performance situation and the deployment of work strategies that are well tuned to the special features of the team's task and situation.
5. Supportive organisational context	Even teams that are properly structured and supported sometimes founder because they cannot obtain the organisational supports they need to perform well. Having the material resources needed to carry out the work is of course essential. But beyond that, team performance is facilitated when: (i) the reward system provides recognition and positive consequences for excellent team performance, (ii) the information system provides the team with the data and the information-processing tools members need to plan and execute their work, and (iii) the organisation's educational system makes available to the team any technical or educational assistance members may require.
6. Team-focused coaching	Competent and well-timed team coaching can help a team minimize its exposure to process losses and increase the chances that it will operate in ways that generate synergistic process gains. But even highly competent coaching is likely to be futile when the other enabling conditions are not in place, or when the team is not at a stage of its life cycle when members are ready to receive it. That is why coaching, as important as it can be in fostering competent teamwork, comes last in the list of enabling conditions.

Salas et al (2015) developed another approach (briefly discussed above) which argues for setting the conditions for team effectiveness. They proposed a set of six critical considerations and three influencing conditions, some of which are more remedial in nature (see next sub-section).

DEFINITIONS OF SIX CRITICAL CONDITIONS AND THREE INFLUENCING CONDITIONS FOR EFFECTIVE TEAMWORK (SALAS ET AL, 2015)

CRITICAL CONSIDERATION	DEFINITION
Cooperation	The motivational drivers of teamwork. In essence, this is the attitudes, beliefs, and feelings of the team that drive behavioral action.
Conflict	The perceived incompatibilities in the interests, beliefs, or views held by one or more team members.
Coordination	The enactment of behavioral and cognitive mechanisms necessary to perform a task and transform team resources into outcomes.
Communication	A reciprocal process of team members' sending and receiving information that forms and re-forms a team's attitudes, behaviors, and cognitions.
Coaching	The enactment of leadership behaviors to establish goals and set direction that leads to the successful accomplishment of these goals.
Cognition	A shared understanding among team members that is developed as a result of team member interactions including knowledge of roles and responsibilities; team mission objectives and norms; and familiarity with teammate knowledge, skills and abilities.
Composition*	The individual factors relevant to team performance; what constitutes a good team member; what is the best configuration of team member knowledge, skills, and attitudes (KSAs); and what role diversity plays in team effectiveness.
Context*	Situational characteristics or events that influence the occurrence and meaning of behavior, as well as the manner and degree to which various factors impact team outcomes.
Culture*	Assumptions about humans' relationships with each other and their environment that are shared among an identifiable group of people (e.g., team, organization, nation) and manifest in individuals' values, beliefs, norms for social behavior, and artifacts.
* Denotes influencing condition.	

Commenting on the condition-focused approach, Hackman (2012) describes the creation of effective teams as a front-loaded activity:



The decisions and actions that make the most difference are those that occur even before a group convenes and at the very beginning of its life... leaders sometimes find themselves tempted to over-design the group and to provide excessively detailed guidance during the launch process... it is wise to resist that temptation and instead to adhere to the principle of minimum critical specification. That principle asserts that one should specify only those few design features that are absolutely essential, thereby leaving a great deal of latitude for group members to chart their own course. - Hackman (2002)

To return to a point made in the introduction, teams are unstable and dynamic entities. They are also, to a large extent, self-regulating. Therefore, in order to be effective, teams must be provided with the starting conditions they need to be self-regulating and to work with their intrinsic instabilities and dynamics.

While this approach is entirely plausible, it is not clear exactly how Hackman's (2012) six enabling conditions and Salas et al's (2015) six critical conditions and three influencing conditions relate to the theory and evidence around teams. While it draws on this, the authors are also likely to be using their judgement and experience to identify the most important conditions for team effectiveness.

At CRF's workshop, Work Psychology Network: Teams and Team Effectiveness, participants discussed how Hackman's sixth condition for team effectiveness, team-focused coaching, may be better thought of as a "meta-condition"; something that needs to be in place to support all the other conditions.

Participants also highlighted the importance of gathering feedback from external stakeholders. This can help teams test their assumptions about "What are we here to deliver?" The answer may be quite different from what the team thinks it is delivering.

5.4 TAKE REMEDIAL ACTION IF THE TEAM IS NOT EFFECTIVE

Going through the three initial steps described above (deal with misconceptions, avoid common mistakes, set conditions for effectiveness) does not guarantee that a team will be effective because conditions change. This includes membership, leadership, task requirements, resources, technology, organisational context, etc.

But what does an ineffective team look like? Given the definitions of team effectiveness discussed earlier, two criteria would be used to identify if a team is effective or otherwise: 1. Is it producing the desired outputs? And 2. Are team processes satisfactory?

This leads to a three stage process for taking remedial action to improve team effectiveness:

- **Stage 1:** Some sort of assessment of team effectiveness issues. What is going wrong?
- **Stage 2:** Some sort of a diagnosis or analysis of causes. Why is it going wrong?
- **Stage 3:** Identify actionable solutions or interventions that are likely to help. What can we do about it? Then, an evaluation of whether or not these actions have been effective.

Each of these stages will be briefly discussed.

5.4.1 STAGE 1 ASSESSMENT: WHAT IS HAPPENING?

As mentioned earlier, there are two aspects to team effectiveness: outputs and processes. In order to assess what might be happening in relation to these we can ask questions as a starting point.

Example questions: team outputs

- What exactly are the team's outputs?
- Are outputs clearly specified?
- How much control does the team have over these outputs?
- To what extent are the outputs being produced?
- Are outputs produced to schedule with the quality required?
- Are outputs satisfactory to clients?

Example questions: team processes

- Are team members generally satisfied?
- How much is the team learning and adapting?
- To what extent are individual team efforts coordinated?
- To what extent do team members have shared objectives?

It is also possible to use some of the frameworks described earlier which contain broad categories or headings for key team performance processes (e.g., cooperation, cognition). We can then ask questions within each of these categories (e.g., Are there issues with cooperation? Are there problems with shared cognition and understanding?) to reduce the chances of missing important issues.

5.4.2 STAGE 2 DIAGNOSIS: WHY IS IT HAPPENING?

The causes of the problems identified in Stage 1 will inevitably be somewhat context-specific. It is important that we use local knowledge and other forms of data to understand why the problems are occurring.

However, there may be other more general causes of low team effectiveness which are also worth considering. The cause of the issues may be that one or more of the critical conditions for team effectiveness were not put in place when setting up the team. It may also be the case that critical conditions that were in place are no longer in place.

Hackman's (2012) enabling conditions also provides a way of understanding possible causes of low team effectiveness. This table (also presented earlier) provides a description of the six enabling conditions which might help us to identify why the effectiveness problems are happening.

For example, might a cause of the effectiveness issues identified in Stage 1 be that the team does not have (or no longer has) a compelling purpose? Or, might the cause be an unsupportive organisational context?

HACKMAN (2002) – CONDITIONS FOR TEAM EFFECTIVENESS

1. Real team	Real work teams are intact social systems whose members work together to achieve a common purpose. They have clear boundaries that distinguish members from nonmembers. They work interdependently to generate a product for which members have collective, rather than individual, accountability. And they have at least moderate stability, which gives members time to learn how to work well together.
2. Compelling purpose	A compelling purpose energizes team members, orients them toward their collective objective, and fully engages their talents. Purpose has high priority when establishing a team because so many other design decisions depend on it—how the team is structured, the kinds of organisational supports that are needed, and the type of coaching by team leaders that will be most helpful.
3. Right people	Well-composed teams have the right number and mix of members, each of whom has both task expertise and skill in working collaboratively with others. And they are as small and as diverse as possible—large size and excessive homogeneity of membership can cripple even teams that otherwise are quite well designed.
4. Clear norms of conduct	Norms of conduct specify what behaviors are, and are not, acceptable in a team. Having clear, well-enforced norms greatly reduces the amount of time a team must spend actively managing member behavior. The best norms promote continuous scanning of the performance situation and the deployment of work strategies that are well tuned to the special features of the team's task and situation.
5. Supportive organisational context	Even teams that are properly structured and supported sometimes founder because they cannot obtain the organisational supports they need to perform well. Having the material resources needed to carry out the work is of course essential. But beyond that, team performance is facilitated when: (i) the reward system provides recognition and positive consequences for excellent team performance, (ii) the information system provides the team with the data and the information-processing tools members need to plan and execute their work, and (iii) the organisation's educational system makes available to the team any technical or educational assistance members may require.
6. Team-focused coaching	Competent and well-timed team coaching can help a team minimize its exposure to process losses and increase the chances that it will operate in ways that generate synergistic process gains. But even highly competent coaching is likely to be futile when the other enabling conditions are not in place, or when the team is not at a stage of its life cycle when members are ready to receive it. That is why coaching, as important as it can be in fostering competent teamwork, comes last in the list of enabling conditions.

Tannenbaum et al (2023) consider nine common obstacles which may also help identify the causes of low team effectiveness:

1. Competing priorities.
2. People do not value their teammates.
3. Power differentials.
4. A leader is not promoting collaboration.
5. Lack of experience working together.
6. Dynamic work demands.
7. Working with team members from different disciplines or training.
8. Team member overload.
9. Lack of resources.

Ways of dealing with these specific obstacles are considered in the next section.

Once the team effectiveness issues have been diagnosed (Stage 1) and their likely causes identified (Stage 2), we can then move on to the next stage.

5.4.3 STAGE 3 INTERVENTIONS: WHAT CAN WE DO ABOUT IT?

As with identifying the cause of the issue, the intervention or solution may also be quite context specific. But, here too, there may also be some solutions that work across many or most contexts.

Hackman's (2012) six enabling conditions cannot only be used to help identify causes of low effectiveness, but also possible solutions. For example, if the cause is a lack of compelling purpose then the solution would be to create or communicate that purpose.

Similarly, if the cause is found to be related to one of Salas et al's (2015) six critical conditions or three enabling conditions described earlier, they give examples of practical advice about how issues related to those critical conditions can be tackled.

PRACTICAL ADVICE FOR USING THE CRITICAL CONSIDERATIONS AND INFLUENCING CONSIDERATIONS FOR MANAGING TEAMWORK

(ADAPTED FROM SALAS ET AL, 2015)

Cooperation	• Build collective efficacy through promoting “early wins.” • Build trust through the discussion of past experiences relevant to team goals.
Conflict	• Be proactive—set expectations for how to handle conflict. • Be reactive—confront conflict when it occurs instead of ignoring it.
Coordination	• Self-correct via huddles and debriefs. • Ensure team member roles are clear but not overly rigid.
Communication	• Share unique information among team members. • Utilise closed-loop communication patterns.
Coaching	• Use coaches to diagnose and address teamwork problems. • Distribute leadership responsibilities among multiple members of the team.
Cognition	• Foster understanding of roles and how these roles fit together through cross-training. • Establish a clear shared understanding of team functioning through self-correction.
Composition	• Select for a strong team orientation. • Compose teams based upon both the teamwork and taskwork demands.
Context	• One size does not fit all—anticipate and plan for contextual teamwork challenges. • Set organisational policies, practices and procedures that promote and support teamwork.
Culture	• Create a hybrid culture that leverages pro-team values and creates a safe environment for voicing ideas and concerns. • Create a team culture that embraces similarities and respects differences.

More specifically, it may also be that the cause is identified as one of the nine common obstacles identified by Tannenbaum et al (2023) and listed above. They also provide suggestions about strategies to overcome each of these barriers, considering what not to do and strategies that can be adopted by team members and team leaders.

HANDLING NINE COMMON OBSTACLES TO TEAMWORK

(TANNENBAUM ET AL, 2023)

	PATH OF LEAST RESISTANCE (WHAT NOT TO DO)	STRATEGIES AS A TEAM MEMBER	STRATEGIES AS A TEAM LEADER
COMPETING PRIORITIES	1. Just focus on "your" priorities and let others worry about theirs. 2. Always acquiesce and drop what you are doing to appear "responsive."	1. Name what you are observing in a non-judgmental way. 2. Ask a question that includes "we." 3. Seek input from your leader.	1. Be on the lookout for competing priorities and discuss how to handle them. 2. If needed, work individually with team members to clarify task priorities. 3. Specify any "non-negotiable" priorities and engage in periodic "check-in" discussions.
PEOPLE DO NOT VALUE THEIR TEAMMATES	1. Look the other way and ignore/accept it. 2. "Call them out" in front of your team.	1. Vocalize people's contributions to the team (and not just think it).	1. Verbalize team member contributions, whether privately or publicly. 2. If you notice disrespect between team members, address this with them privately.
POWER DIFFERENTIALS	Do whatever the senior person says and gripe about it later.	1. Be selective on when to speak up. 2. Increase your likelihood of being listened to by acknowledging this is the leader's decision. 3. Ask junior team members for their perspective.	1. Recognize people might be reluctant to speak in front of you. 2. Actively encourage people to speak up or ask for their input directly. 3. Thank people for their perspectives, regardless of your own opinion.
A LEADER IS NOT PROMOTING COLLABORATION	Put your head down and do "your job."	1. Recognize this might be a difficult situation. 2. Diplomatically ask the leader to take actions to aid the team. 3. Set an example by being a good teammate.	1. Seek feedback from your team. 2. Take the "pulse" of your team. 3. Identify key opportunities to highlight the importance of teamwork.

LACK OF EXPERIENCE WORKING TOGETHER	Assume everyone is ready to work together.	1. Aid in the onboarding of new team members. 2. Be intentional about getting to know new team members.	1. Do not assume the team is ready to go. 2. Allow help new team members to get up to speed. 3. Establish a shared understanding for the team. 4. Conduct team debriefs.
DYNAMIC WORK DEMANDS	Wing it.	1. Ask questions about changing requirements and expectations in front of new team members. 2. Be willing to admit when you need assistance.	1. When possible, alert the team of forthcoming changes. 2. Discuss what is changing with your team and agree on how it should be handled. 3. Remind team members to speak up if they have questions about perceived changes. 4. Conduct team debriefs.
WORKING WITH TEAM MEMBERS FROM DIFFERENT DISCIPLINES OR TRAINING	Demonstrate professional hubris, assuming one's discipline is best and use your field's jargon.	1. Explain your field's methods, but don't assume that is the only way. 2. Ask different team members what they are thinking and respect different perspectives.	1. Recognize communication barriers are more common in interdisciplinary teams. 2. Clarify the team's overall process and the approach the team is going to take, making sure everyone knows where they fit in. 3. Actively acknowledge contributions from different fields.
TEAM MEMBER OVERLOAD	Just push through it.	1. Keep an eye out for members showing signs of fatigue or burnout. 2. Offer assistance to team members who need support. 3. Let your leader know if you believe someone is at risk. 4. Speak up if you are feeling overwhelmed or fatigued.	1. Be honest about work demands and priorities, especially which tasks have flexibility and which ones do not. 2. Keep an eye out for fatigue and burnout in your team, particularly during periods of high stress and high workload. 3. Create a psychologically safe environment where people feel comfortable speaking up. 4. Give team members a chance to "re-energize" after prolonged, intensive work experiences.
LACK OF RESOURCES	1. Ignore it and just work harder and longer hours. 2. Spend a lot of time and energy continually complaining about it.	1. Recognize that direct control over the situation is unlikely. 2. Differentiate between a short-term deficiency and a systematic deficiency. 3. Help your teammates and seek their assistance in short-term deficiencies. 4. Share your concerns with the team leader, and be specific.	1. Be alert for deficiencies that adversely affect your team's performance. 2. For systematic deficiencies, assemble a clear rationale for additional resources and share it with the appropriate decision makers. 3. Do not state "I will fix this" unless you have direct control over the situation.

5.5 CREATING AND IMPROVING TEAM EFFECTIVENESS: SOME CONCLUDING THOUGHTS

People hold a range of misconceptions about teams and there are several mistakes commonly made in managing teams. It is important that we deal with these first before moving on to creating team effectiveness.

The nature of teams and team effectiveness means that we can't make a team perform well. We can't just "drive" team performance. Hence the emphasis on creating team effectiveness by ensuring the critical conditions that are likely to lead to team effectiveness are put in place first:

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Let me go further and suggest that any attempt to make a group do well is doomed from the start - it is likely to be ineffectual or, in some cases, to result in effects that are the opposite of what was intended. - **Hackman (2002)**

At the same time, things can easily go wrong. If they do, we need a straightforward way of diagnosing what the issues are, their causes and likely solutions.

Given that teams are fundamentally unstable and dynamic it seems highly unlikely that remedial action will only be required once. However, rather than constantly "tweaking" various factors that might affect team effectiveness, it would seem to make more sense to pay attention to the critical conditions and ensure that they remain, broadly, in place.

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