Scientific Background and Benefits of papilio's Team Development Solution
papilio's Team Compass

An article by

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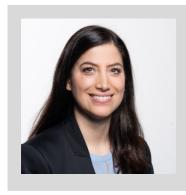
About the Authors

Tanya Ardabili is a Senior Consultant and the Lead for Online Assessments within Digital Solutions at papilio. As the product owner of the Team Compass, she is dedicated to implementing this solution and tailoring it to clients' specific needs and objectives. Tanya advises and supports clients across all Digital Solutions, serving as a trainer and facilitator in talent recruitment and development areas. Before joining papilio, she held various HR roles in the consumer goods sector, focusing on Talent Acquisition, Employer Branding, and HR Transformation. Tanya is a certified coach (CAS) from the Zurich University of Applied Sciences and holds a background in Industrial/Organizational & Business Psychology, as well as International Business Management.

Lia Leutenegger studied Psychology at the University of Zurich with a focus on Statistical Analysis as well as Work, Team and Organizational Psychology. In her master's thesis, she investigated the relationship between different influencing factors on team performance. At papilio, she supports organizations from all industries in recruiting and developing the best talent through assessment and development centers. In addition, she examines the scientific quality of diagnostic tools and procedures and investigates the different strengths and development areas of teams and talent groups using statistical, data-analytical and psychological methods.

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Abstract

Teams are becoming increasingly vital in today's workplace (West, 2001). As tasks and challenges become more complex, the need to leverage the collective skills and expertise of specialists is crucial for success and long-term growth (Nerdinger, 2014). But what exactly defines a team? What makes a team high-performing? And what challenges emerge from collaboration? These key questions are explored in the first chapter.

To help organizations meet these challenges and cultivate high-performance teams, the papilio Team Compass was developed. Continuously refined with the latest scientific insights, this tool offers a powerful way to analyze and enhance teamwork. Learn more about the papilio Team Compass in the second chapter.

The Science behind Teams

What is a Team?

Work teams are defined as a **cohesive group of individuals**, bound by **shared norms** and embedded within an organizational context, who collaborate over an extended period to **perform interdependent tasks** through **social interaction** to **achieve a common goal**

(Kozlowski & Bell, 2003; Rosenstiel & Nerdinger, 2011).

What influences team performance?

Input-Process-Output (IPO) models (e.g., Hackman, 1987) describe how inputs (e.g. personality of the team members) influence team processes (e.g. team communication), which in turn determine outputs (e.g. performance). These models integrate insights from economics, psychology, and social sciences to illustrate the factors that promote or hinder the success of a team.

Input

Team members: Different team members bring diverse perspectives and personalities, contributing a wide range of skills and expertise to the collective effort (e.g. Burke et al., 2006). Key personality traits like conscientiousness and agreeableness enhance performance (Peeters et al., 2006), while openness to experience fosters innovation and creativity within teams (LePine, 2003).

Team Composition & Structure: Teams are shaped by various elements, including their roles, norms, and overall composition. While many organizations recognize and promote the importance of demographic diversity, job-related and psychological diversity—such as differences in thinking styles, perspectives, experiences, and knowledge—also play a critical role in improving team performance (van Knippenberg & Schippers, 2007; Horwitz & Horwitz, 2007).

Organization: Teams operate within a broader organizational context that significantly impacts their dynamics and performance, including factors like organizational culture, structure, and available resources (e.g., Hackman, 1987).

Process

Leadership, Coordination & Decision: In addition to decision-making and coordination, leaders can significantly enhance team performance through a transformational and adaptive leadership style (Bass, 1999; Yukl & Mahsud, 2010). However, new approaches such as agile teams move away from traditional leadership roles and instead support coordination and collaborative decision-making within the team through clear structures and processes (Beck et al., 2001).

Cooperation & Cohesion: Effective teams are characterized by high levels of cooperation and cohesion. Cooperation—the willingness to work together and support each other—enhances the exchange of ideas, knowledge, and resources, boosting a team's innovation and problem-solving abilities (Salas et al., 2015). Cohesion, the sense of belonging, typically leads to greater cooperation and team performance, as members are more committed to the group and show more willingness to support each other (Beal et al., 2003).

Communication, Information sharing & Reflection: Working in a team presents challenges, as individuals possess different information, and knowledge, which must be effectively shared for allow successful collaboration. Inadequate communication can lead to groupthink, where critical opinions and important information are overlooked, resulting in flawed decisions (Janis, 1972). Effective collaboration, however, requires communication that goes beyond merely exchanging information. It involves 'voicing' about potential risks (Morrison, 2011), reflecting on teamwork processes (Konradt et al., 2015), and developing shared mental models (Mathieu et al., 2000).

Psychological Safety & Trust: Psychological safety is the belief that one can take interpersonal risks, such as discussing mistakes, providing feedback, or sharing new ideas, without fear of negative consequences (Edmondson, 1999). Trust and psychological safety not only directly impact team performance and innovation but also support most of the other critical factors for high-performance teams discussed in this paper (Newman et al., 2017).

Conflict, Stress Management and Problem solving: Dealing effectively with external stressors is another important factor influencing team outcomes (Dietz et al., 2017). But also internal stressors, such as conflict, are particularly important, with relational and process conflicts having a negative impact on team performance, while task conflicts have a neutral or, depending on the situation, even positive impact by promoting the team's creativity and problem-solving skills (Greer et Dannals, 2017).

Outcome

Vision, Purpose & Goal Alignment: A clear and compelling vision provides a shared direction and long-term objective that guides the team's efforts (Lynn & Kalay, 2015) Moreover, goal alignment is essential for ensuring that all team members are working towards the same outcomes, reducing the likelihood of conflicts arising from misaligned priorities or misunderstandings about the team's objectives (Locke & Latham, 2002).

More recent models of IPO also consider the influence of results as new input that influences the team in future projects (IMOI models, Ilgen et al., 2005). These modls highlight how earlier successes influence the long-term performance of the team.

Why is Team Development important?

Team development is a crucial tool for systematically addressing the various factors that influence teams and enable them to unlock their full potential. Choosing the right intervention is key. By following a classic intervention process, targeted measures can be developed to support the team precisely and individually:

1. **Analysis**: The analysis forms the foundation of any successful team development initiative. During this phase, the current situation of the team is examined to identify strengths and challenges in its collaboration. Furthermore, development goals are defined, tailored to the specific needs and context of the team.

2. **Planning**: In the planning, concrete measures are developed based on the results of the analysis to achieve the defined development goals. A customized intervention plan is created, taking into account the specific requirements of the team.

3. **Implementation**: The implementation phase is the core of the intervention process, where the planned measures are put into action. There are a variety of scientifically based options that can be applied depending on the needs of the team.

   o **Workshops and Trainings**: Trainings typically focus on specific aspects such as communication, conflict resolution, or team leadership. These areas are explored in depth, though often in a more isolated manner. Workshops and training sessions are particularly suitable when specific factors in team collaboration need improvement and there is already significant agreement on the topics to be developed (see also "Training as part of employee development" by papilio ag).

   o **Team Feedback with Facilitation**: This intervention uses the results of team feedback processes, often employed during the analysis phase, to prompt team members, through a facilitated debriefing, to reflect on their collaboration and collaboratively seek solutions. This method is particularly useful when the challenges within the team are complex and interconnected or when differing perspectives exist.

   o **Coaching**: Coaching provides long-term support for individual members, subgroups, or the entire team. It is especially effective when dealing with profound and holistic changes that require continuous guidance and reflection (see also "Everyone can benefit from coaching" by papilio ag).

4. **Evaluation:** The evaluation is intended to assess the success of the implemented measures, the long-term impact of the measures on team collaboration, and whether the team could benefit from additional measures.

Team development is a strategic necessity for organisations aiming to thrive in a competitive environment. At the core of effective teams lies trust. Through team development initiatives, we cultivate an environment where trust flourishes, where seamless collaboration is enabled and where open communication is the norm. Investing in team development not only boosts morale but also cultivates a sense of ownership and commitment among team members. By aligning individual aspirations with organisational objectives, we create a synergy that fuels achievement and success. Based on the scientific research, papilio is offering a team development solution that combined a digital solution with the expertise of papilio's experienced Coaches.

papilio's Team Compass Solution

papilio's Team Compass focusses on 10 core competencies that are proven elements of an effective team collaboration – the tool reviews HOW a team works together and provides aggregated results for the team vs. the team head. The Team Compass reviews 10 core competencies with 7-9 sub-elements per competency. Ratings are set between 1-5, whereas 1 refers to "strongly disagree" and 5 refers to "strongly agree". The completion takes approximately 30 minutes and is hosted on our digital platform enabling Solutions. The report provides insights into each competency & sub-element, showing the results of the team head and the team incl. range, the highest & lowest sub-elements and the highest difference between team head & team. The automated report provides an overview and in-depth insights on the team's strengths and development areas.

Core Features of the Team Compass:

FLEXIBLE: The Team Compass is a standardized questionnaire that is easy to implement. However, to accommodate specific needs, the system offers various customisation options to fully meet our clients' requirements.

SECURE: All data is stored locally on a Swiss server, ensuring the anonymity of feedback providers. If there is a single Team Head, their responses are transparent. The process is managed through our secure SaaS platform, with results accessible only to authorized users.

SWISS MADE: Our solution was developed in Switzerland by a team of psychologists and IT specialists at papilio, grounded in rigorous scientific research. This collaboration ensures a reliable, research-based tool tailored to meet our clients' needs.

SERVICE: We manage the entire process from start to finish, offering continuous support to our clients. For a plug-and-play solution, it typically takes about 2-3 weeks from the start to the delivery of the final report.

papilio's Team Compass Competencies

Based on current scientific findings (see also The Science behind Teams) combined with papilio's expertise in personnel diagnostics, feedback processes such as 360° and team development, 10 competence dimensions have been identified, which are analysed in the Team Compass:

1. **Goal Handling:** "A team is a group of people acting together to achieve common goals". This clear and simple definition covers the notion of the following section. Please indicate the degree to which the following statements reflect the practice of your team in handling common goals. We would like to encourage you to complement your ratings by providing concrete examples you consider as good illustrations of the way you work together toward shared goals.

2. **Cooperation:** Working co-operatively together implies that more can be accomplished in this way that if individual outputs were merely summed. The added value of a team is created by individuals being ready to invest into other team members in a number of different ways. Please indicate the degree to which you find the following behaviours are shown in your daily working together as a team. Again concrete examples may underpin the numerical ratings you have given.

3. **Innovation & Openness for Change:** More challenging markets and customer demands, together with less structured organisational settings make team environments more and more complex. Complexity requires innovation and adaptation to change. Teams need to deal with this challenge. There are a number of ways that teams cope with change and create innovations. Please rate your team's ability to change and innovate using the following statements, possibly supported by concrete examples of situations you as a team have had to manage.

4. **Accountability & Leadership:** Although modern teams still have formal leaders, they tend to function in a much more participative way than has been the case in the past. Therefore, team leadership in a broad sense is of growing importance. This means that team members show a high degree of self-responsibility, and feel accountable for how well the team functions. Indicate the degree to which the following statements describe the leadership situation in your team, adding qualitative comments where appropriate.

5. **Problem Solving & Decision Making:** Groups in organisations usually serve a purpose; they are supposed to work on a common task or to solve problems. A key requirement to good outcomes is the ability to establish a common understanding on the problem as such and based on this to draw possible solutions to the problem. Once alternative solutions are on the table it's about taking a decision on the solutions to be put into practice. Please evaluate the problem-solving competence of your team - adding your qualitative comments as illustrations.

6. **Result Orientation:** Having tangible outcomes is the ultimate purpose of almost any team. Moreover, teamwork, according to a number of research studies, provides an important tool for enabling people to be more productive. Having agreed to criteria for excellence, and then tested results against these criteria on a regular basis, is an indicator of team maturity and the degree to which the energy of the team is focused on results. Please evaluate the status of your team in this respect assessing the following statements.

7. **Cultivating Relationships:** Cultivating internal and external relationships on a continuous basis helps to improve a team's collaboration as well as to strengthen its external impact. Within the team it's about improving cohesion and towards the external world it's about lobbying for the team's interests as well as to provide the team with the necessary resources. Please evaluate the quality of the relationships within the team as well as the effectiveness of your team's networking strategy.

8. **Customer Focus:** The ultimate function of a team is to provide productive output that makes an impact outside the team, in particular to internal/external customers. While some teams may not have direct external customers every team needs to understand how its activities contribute to creating an added value to the company which finally leads to producing customer satisfaction. Please indicate the degree to which the following statements reflect the customer focus of your team. Thanks again for providing comments which illustrate your view in terms of concrete evidence.

9. **Stress Management:** The requirements for efficient working have continuously increased in recent years. We have incorporated many improved methods and tools into our day-to-day work. At the same time, our daily routine is characterized by tightened cost, scarce personnel, and other resources as well as tighter deadlines. How we as a team deal with this growing pressure is the subject of this section of the questionnaire.

10. **Communication & Psychological Safety:** Open communication is a key characteristic and pathway to effective team performance. It provides motivation, promotes cooperation and pushes the team back into effective functioning. As part of communication, conflicts must be effectively managed and resolved. A trusting and psychologically safe environment is another critical aspect of team performance for team members to bring forward their authentic selves without fear of repercussions.

Results and Insights

Properly analyzing the data and drawing accurate conclusions are essential for maximizing the benefits of the Team Compass process. With papilio's support and expertise, we can help you transform the reporting data into meaningful insights, such as using spider diagrams to compare the team with the team head or identifying significant correlations to uncover relevant patterns.

To fully leverage the insights from the Team Compass, we recommend designing and conducting a workshop based on the output. Without this step, valuable opportunities for taking meaningful action may be missed, and the process may not lead to the desired outcomes. Awareness alone is not enough; actionable steps are crucial to drive real change in behaviour and collaboration. Workshops can focus on building on strengths or addressing specific development areas. papilio's facilitators bring extensive experience in guiding teams to effectively use these insights, fostering an environment that welcomes feedback and provides participants with a clear roadmap for implementing behavioural changes. Alternatively, papilio can kickstart the process with a one-hour keynote on team dynamics and collaboration, setting the right tone and mindset for the workshop ahead. Whatever option you may chose, papilio's Consultants support you along your team development journey.

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