

### INTRODUCTION

Team building is a management tool that can be used to develop a group of individually contributing employees into a cohesive and collaborative team.<sup>1-3</sup> All organizations, no matter how big or small, can reap the personal and workplace benefits of implementing team building activities, such as improvements in morale, employee quality of life, communication skills, innovation and work quality. The following review is intended to aid laboratory scientists and leaders in understanding the key principles of effective team building and lay a foundation for the successful implementation of the APHL Team Building toolkit.

### KEY ELEMENTS OF TEAM BUILDING

#### Leadership

Teams must be nurtured, supported, and developed, and this usually begins at the top of the organization or group.<sup>4</sup> Implementing teambuilding in the workplace requires conscious effort from management and leadership, but also from the general workforce.<sup>4,6</sup>

The first step leaders can take to establish a great team is to ensure they have people with the right skills at all levels of the group—from good leaders to a solid foundation of staff. Each level of the group has their own essential function:

- **Leaders** must understand the importance of group dynamics, take initiative and not be afraid to make difficult decisions.<sup>1-3</sup>
- **Middle managers/co-leaders** must be prepared to step in when the leader is not available and help fulfill the team’s goals.<sup>1-3</sup>
- **All staff** must be willing to grow and do their best every day to support the work of the group.<sup>1-3</sup>

To ensure that these functions are being fulfilled, investments should be made to support staff and provide opportunities for them to improve their skillsets—particularly in areas such as leadership that are not generally taught during formal education.<sup>1-3</sup>

#### Effective Communication

Effective communication is essential for building successful teams, as it requires that employees communicate in ways that promote team unity and loyalty, and helps solidify messages. Laboratory directors and supervisors must take steps to ensure their employees develop these critical communication skills at all levels of the organization.<sup>2,7</sup>

Communication depends on trust. For effective communication to take place, an environment must be created where team members can share their thoughts and feelings without any repercussions. This setting allows team members to trust each other enough to provide and accept constructive criticism and work together for a common goal.<sup>2,7</sup>

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With the vast number of communication platforms available today, there are many opportunities for quick and effective communication with a variety of culturally diverse associates. To take full advantage of these options, it is imperative that team members learn to utilize them effectively—such as what content or tone is best suited to each medium.<sup>2,7</sup>

## Cooperation

To function effectively, groups must learn to cooperate and be open to the ideas of others. This cannot happen without trust and respect. Every member of the team must work to develop through their actions, such as:

- Following through with tasks (i.e., do what you say you will do)
- Ensuring work is as accurate as possible
- Promoting creative approaches to problems
- Respecting the time of others
- Remembering they are part of a team<sup>2</sup>

## Inclusion

According to a recent Gallup survey, 45% of US workers reported that they experienced harassment or discrimination at work in the past year.<sup>8</sup> A lack of organizational core values—or policies that do not align with the core values—and bias can contribute to a toxic work environment with low morale, high turnover and overall job dissatisfaction.<sup>8-10</sup>

“Diversity is about who you hire. Inclusion is about the respect and acceptance people feel.”<sup>8</sup>

Good managers make sure that tasks are completed on time and goals are met; great managers, however, build inclusive teams in which every member feels valued and engaged.<sup>9</sup> Supervisors and managers can change workplace culture and by creating an inclusive team and environment where employees feel valued and comfortable sharing ideas and volunteering for projects.<sup>8,9</sup> This inclusive and diverse approach where managers appreciate the unique characteristics of all team members can increase productivity and innovation in the workplace and reduce turn over and absenteeism because people feel appreciated at work.<sup>8,9</sup>

## ADVANTAGES OF IMPLEMENTING TEAM BUILDING IN YOUR ORGANIZATION

### Resilience

Psychological resilience is key factor in an individual’s ability to whether stress and uncertainty; this can be especially important among public health laboratory workforces in the face of emergencies, such as a disease outbreak or natural disaster. A supportive workplace environment can help improvement resilience. Some publications show that this supportive environment can be encouraged through team building activities.<sup>11</sup> Group activities outside the work environment can help employees to interact with one another and build trust within their team, thereby improving the support structure within teams. Additionally, Maheswari’s work indicates that team building allows employees to have free moments with positive motivation, which can lesser stress and boost creativity, thereby improving psychological resilience through stress reduction.<sup>12</sup>

### Productivity

In another vein, team-development interventions, when compared to other organizational interventions, were shown to yield more performance amelioration and showed positive impacts on financial metrics.<sup>13</sup> This indicates that team building can boost effectiveness of a team, by improving social relations and clarifying roles, as well as addressing task and interpersonal issues that affect team function.

Team building, enhanced trust, innovative thinking and emotional engagement within the workplace can improve team synergy; enhancing the potential that the productivity of the group versus an unorganized group of individuals.<sup>12</sup> Unfortunately, apart from productivity, published literature mainly relays subjective findings regarding these outcomes, and further research and common terminology is needed to enhance the understanding of the benefits of team building.

### IMPLEMENTING TEAM BUILDING VIA CULTURAL CHANGE WITHIN ORGANIZATIONS

Implementing cultural change, especially in the context of team building, represents a significant challenge in many workplaces. To successfully change a workplace culture to improve teamwork, one must consider the barriers to implementing cultural change, the values of the organizations that successfully implement change, and the best practices for how to organize and foster the development of teams in the workplace.

#### Barriers to Implementing Cultural Change

Many barriers to successful implementation of cultural change may exist within an organization, both at the personal (i.e., individual staff members) and structural levels (i.e., hierarchy, roles of staff members).

Personal, negative attitudes or emotional reactions to institutional change can often undercut and sabotage attempts to transform organizations—especially in the context of improving morale—as these responses can lead to significant stress and low commitment and trust within the organization.<sup>14</sup>

Structural and organizational barriers can also impede cultural change. A lack of organizational flexibility—characterized by high-control values consisting of rigid hierarchical systems and centralized decision making—significantly hinders organizational change; this principal is laid out in Quinn and Rohrbaugh's work on the Competing Values Framework (CVF).<sup>15</sup>

Another significant structural barrier is a lack of open communication within the organization, especially when related to inter-generational teams. For example, millennial generation workers generally value open, direct and frequent communication more than previous generations. There are also differing opinions on the value of teamwork between generations, with millennial workers valuing teamwork much more than their generation-X predecessors.<sup>16</sup>

#### Values of Organizations that Successfully Implement Cultural Change

Organizations that implement cultural change and improve their work via team building exhibit specific values that enable their success. Quinn and Rohrbaugh's work on the CVF specifies that organizations that value Human Relations—characterized by open communication, collaborative decision making and investment in staff—as well as Open Systems—characterized by communication of shared vision and adaptability—are much more successful in implementing change than more control-focused organizations.<sup>15</sup>

Open, two-way communication and leadership support are important components of successful team development within organizations.<sup>17</sup> Teams that receive, give and value frequent feedback are more effective in the workplace.<sup>18</sup> Additionally, evidence from medical team training suggests that direct involvement of senior leadership in these types of change initiatives substantially improves long-term outcomes and influences their success.<sup>19</sup>

Another value of organizations that succeed in implementing cultural change and building effective teams is participative decision making. By encouraging multi-disciplinary involvement in making decisions, organizations improve buy-in from their staff members, allow for more complete evaluation of risk and enable staff to complete their assigned tasks more effectively.<sup>18</sup> Furthermore, encouraging staff to be involved in decision making processes can reduce errors by fostering ownership of their workplace.<sup>20</sup>

## Organizing and Developing Teams

When organizing effective teams, several factors must be considered. First, establishing consistent teams is critical. Teams that consistently work together and establish work rhythms make fewer errors than teams of variable composition.<sup>21</sup> Second, clearly defining team roles improves morale and performance. Teams with clearly defined roles perform better, generate less stress and improve morale for the team members involved.<sup>22</sup> Finally, while teams should be given autonomy and accountability around the work they perform, it is critical that strong leaders connect their work to the mission of the organization via frequent communication of the vision for the organization and provide frequent feedback and evaluation of the team's performance.<sup>18</sup>

Well-functioning teams do not exist by accident, and training is often necessary for both team members and leadership. Training must be implemented with full buy-in and reinforcement by senior leadership; this includes leaders frequently reinforcing the importance of teamwork and providing regular feedback based on team performance.<sup>23</sup> Additionally, organizations where leaders continuously and conspicuously demonstrate commitment to the effectiveness of teamwork training improves the longevity and impact of the training.<sup>24</sup>

## Conclusion

Overall, implementing the cultural change necessary to build effective teams requires significant effort. Complicated personal and organizational barriers must be overcome to make the changes effective and sustainable. Organizations must value flexibility, open communication and collective decision making to be successful. Building effective teams requires consistency, significant buy-in from senior leadership, and sustained, bi-directional feedback and communication throughout the established teams and organization.

## CHOOSING A TEAM BUILDING ACTIVITY

The literature is abundant regarding the key elements to be considered when attempting to improve efficacy and productivity, but morale and engagement have been less studied. It should be noted that there is heterogeneity in measurement methods and definitions in the group intervention literature, and that the conclusions taken from meta-analyses or systematic reviews must be interpreted with caution.

## Setting an Activity

In the medical field, on-site simulation activities have been proven to enhance workforce communication, collaboration, engagement and retention,<sup>25</sup> but those findings cannot necessarily be applied in a laboratory setting where circulation between units may be somewhat restricted. Despite this limitation, the concept of getting to know the team's physical environment and the role everyone plays in routine and out-of-the-ordinary events should be kept in mind. Bandow establishes that at least 12–18 hours of in-person interaction are needed to establish trust in face-to-face relationships.<sup>26</sup> Trust among team members is crucial to facilitate closed-loop communication, group participation and contribution, dissemination of information and team member retention.<sup>27</sup>

Team building activities must consider that, although face-to-face interactions are recommended, unforeseen circumstances forcing remote work necessitate the consideration of virtual team building activities. With virtual meeting platforms being relatively new outside of leisure activities, no literature could be found that either compares the effectiveness of virtual activities versus in-person, or the caveats to watch for when planning a virtual activity. For in-person activities, convenience of commuting should be considered if planning a remote event.

Having an appropriately sized group may also facilitate a team's ability to establish trust with one another, which is necessary to foster positive team behaviors. Unit-based rather than larger scale activities have been shown to enhance job satisfaction and cohesion among the team.<sup>28</sup> Other research has found that the size of the group impacts the effect of the team building activity; as the size of the group increases, both the positive attitude of an individual toward the

group and the group's performance decrease.<sup>29</sup> If the group is too large, members may become less engaged and less open to the team building intervention. Alternatively, it is reasonable to suggest that larger teams are already performing at a lower level than medium or small teams and would therefore exhibit enhanced benefits from team-building interventions.<sup>13</sup>

## Establishing a Duration, Planning Post-activity Feedback

The duration of team building activities may vary significantly from a single event, to a repeated activity over a short period, or an extended activity over many months. Common sense may lead one to think a more sustained intervention of something that works in the short-term will render better results but, paradoxically, a longer intervention has been shown to generate weaker results in a diverse array of psychological interventions.<sup>29</sup> This being said, there may be value in some repeated activities—such as those of a social nature—to build familiarity and increase engagement. Potential benefits resulting from team building initiatives may be more likely to emerge from small group activities that provide enough time for team members to develop trust, but are not drawn out for extended periods of time (i.e., months or years).

Debriefing after a given activity is important. In fact, regular debriefing has proven beneficial for the well-being of employees. It has been demonstrated with a controlled, quasi-field experiment that regular after-shift debriefings have improved burnout factors such as exhaustion, cynicism and inefficacy among employees.<sup>30</sup> Additionally, reflection and debriefing after collaboration-oriented team building activities is beneficial in helping to create a common ground, which is a necessary component for team building behavior to occur.<sup>31</sup> When participating in an after-action discussion, the group should consider how the activity can help improve effective coordination and collaboration in future team activities by considering:<sup>32</sup>

- **Common Ground**, which includes relevant mutual beliefs, knowledge and assumptions that support the interdependent actions of a team. It is a process of continuous communication, testing, updating and repairing of faulty assumptions. Common ground is not a need for the participants to think identically.
- **Interpredictability**, the ability to coordinate and predict each other's actions. This skill is greatly enhanced in teams where individuals can envision the perspective of their team members.
- **Directability**, the ability to deliberately redirect the actions of other team members as conditions change. It has been identified as an important aspect of coordination because it enhances the team's resilience.

## Types of Activities

There are a vast number of team building activities that have been previously developed. An effective team building activity should address one or more of the models of team building described by Salas et al: goal setting, interpersonal relations, problem solving and role clarification.<sup>29</sup>

### Goal Setting

Team members who know what they're working towards can make strategic decisions to make improvements autonomously or as a team. This requires that they know the goal of their activity, how the objectives will be monitored and what the impact of reaching these goals will be for the team and the organization. Setting goals and providing status updates is key; updates can come during unit-based weekly meetings, larger all-hands on deck meetings or town halls, dashboards monitoring the metrics or other communications platforms.<sup>33</sup>

### Interpersonal Relations

The personal connections between group members are vital to teamwork. Team building activities of a social nature, such as group gatherings, provide time for relationships to develop. As stated by Antes, "A collaborative spirit provides a foundation for accomplishing scientific aims together, and it establishes the basis for a healthy work environment."<sup>34</sup>

## Problem Solving

Many team building activities fall into the problem solving category, such as escape rooms,<sup>35</sup> skill-building activities, or communication and trust exercises.<sup>36</sup> Activities which practice problem solving may help teams solve real problems encountered in the workplace. A structured team building activity provides a safe and low-risk opportunity for colleagues to learn each other's strengths and weaknesses and understand how best to work together.

## Role Clarification

The role-clarification component of team building is designed to relieve stress caused by role ambiguity or role conflict. It is reasonable to anticipate that a significant improvement in team function should result from clarifying team roles. In addition, role clarification emphasizes communication among team members; increasing the level and quality of communication between team members should impact their overall effectiveness and performance.<sup>13, 29</sup>

## CONCLUSION

Implementing team building in an organization may appear challenging, but it can boost morale and engagement among staff and improve productivity. Before reinforcing teams through various activities—some playful and others more goal-oriented—cultural change needs time to take place and the values of team building must be embraced by both the organization's leadership and its employees. Assessment of the function of the existing teams must be designed to target the aspects requiring improvement prior to planning interventions. Team building is a continuous quality improvement process and will yield substantial benefits over time to organizations that pursue it with persistent effort.

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## REFERENCES

1. Forbes Coaches Council. (2021, March 9). 14 Key Elements Of Successful Team-Building Exercises. <https://www.forbes.com/sites/forbescoachescouncil/2021/03/09/14-key-elements-of-successful-team-building-exercises/?sh=2214bb401554>
2. Molony S. (n.d.). 7 Key Elements To Building A Great Team. Retrieved 2022, January 31 from <https://www.zoomshift.com/blog/7-key-elements-to-building-a-great-team/>
3. Guest User. (2018, September 19). 4 Elements of Team Building Activities. <https://jebgroup.com/news/2018/1/9/4-elements-of-team-building-activities>
4. Burgess A, van Diggele C & Matar E (2020). Interprofessional Team-based Learning: Building Social Capital. Journal of Medical Education and Curricular Development, 7. <https://doi.org/10.1177/2382120520941820>
5. Hunziker S, Johansson AC, Tschan F, Semmer NK, Rock L, Howell MD & Marsch S (2011). Teamwork and leadership in cardiopulmonary resuscitation. Journal of the American College of Cardiology, 57(24), 2381-2388. <https://doi.org/10.1016/j.jacc.2011.03.017>
6. Marlowe DP, Manusov EG & Teasley D (2012). A team-building model for team-based care. Family Practice Management, 19(6), 19-22.
7. Muneeb M (2019, November 29). Team Building & Communication. [https://medium.com/@Muhammad\\_Muneeb/team-building-communication-16d5c79bf734](https://medium.com/@Muhammad_Muneeb/team-building-communication-16d5c79bf734)
8. Build a Culture Where Every Employee Can Use Their Voice. (n.d.). Retrieved 2022, January 31 from <https://www.gallup.com/workplace/215939/invest-diversity-inclusion.aspx>
9. Levine S (2020, August 22). Inclusion and Belonging: 3 Skills Managers Need to Build an Inclusive Team. <https://honehq.com/blog/build-an-inclusive-team/>
10. Fortin D (n.d.). Toxic work environments: 15 factors that create a toxic workplace. Retrieved 2022, January 31 from <https://www.predictiveindex.com/blog/toxic-work-environments-15-signs-of-workplace-toxicity/>
11. Brooks SK, Dunn R, Amlôt R, Rubin GJ & Greenberg N. (2019). Protecting the psychological wellbeing of staff exposed to disaster or emergency at work: a qualitative study. BMC Psychology, 7(1), 78. <https://doi.org/10.1186/s40359-019-0360-6>
12. Maheshwari K. (2020). Team building helps in increasing productivity. In S. K. S. Yadav (Ed.), Human Resource Management in Present Scenario : Emerging Issues & Challenges (pp. 63-73). Anu Books.
13. Klein C, DiazGranados D, Salas E, Le H, Burke CS, Lyons R & Goodwin GF (2009). Does Team Building Work? Small Group Research, 40(2), 181-222. <https://doi.org/10.1177/1046496408328821>
14. Vakola M, Tsaousis I & Nikolaou I. (2004). The role of emotional intelligence and personality variables on attitudes toward organisational change. Journal of Managerial Psychology, 19(2), 88-110. <https://doi.org/10.1108/02683940410526082>
15. Quinn RE & Rohrbaugh J (1983). A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis. Management Science, 29(3), 363-377.
16. Myers KK & Sadaghiani K (2010). Millennials in the Workplace: A Communication Perspective on Millennials' Organizational Relationships and Performance. Journal of Business and Psychology, 25(2), 225-238. <https://doi.org/10.1007/s10869-010-9172-7>
17. Salas E & Rosen MA (2013). Building high reliability teams: progress and some reflections on teamwork training. BMJ Qual & Safety, 22(5), 369-373. <https://doi.org/10.1136/bmjqs-2013-002015>
18. Firth-Cozens J. (2001). Cultures for improving patient safety through learning: the role of teamwork. Qual Health Care, 10 Suppl 2(Suppl 2), ii26-31. <https://doi.org/10.1136/qhc.0100026..>
19. Paull DE, Mazzia LM, Izu BS, Neily J, Mills PD & Bagjan JP (2009). Predictors of successful implementation of preoperative briefings and postoperative debriefings after medical team training. American Journal of Surgery, 198(5), 675-678.

<https://doi.org/10.1016/j.amjsurg.2009.07.008>

20. Leonard M, Graham S & Bonacum D (2004). The human factor: the critical importance of effective teamwork and communication in providing safe care. *Quality & Safety In Health Care*, 13 Suppl 1(Suppl 1), i85-90.  
[https://doi.org/10.1136/qhc.13.suppl\\_1.i85](https://doi.org/10.1136/qhc.13.suppl_1.i85)
21. Foushee HC. & Helmreich RL (1988). 7 - Group Interaction and Flight Crew Performance. In E. L. Wiener & D. C. Nagel (Eds.), *Human Factors in Aviation* (pp. 189-227). Academic Press.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-057090-7.50013-8>
22. Carter AJW & West M (1999). Sharing the burden - teamwork in health care settings. In J. Firth-Cozens & R. L. Payne (Eds.), *Stress in health professionals* (pp. 191-202). John Wiley and Sons.
23. Jones KJ, Skinner AM, High R & Reiter-Palmon R (2013). A theory-driven, longitudinal evaluation of the impact of team training on safety culture in 24 hospitals. *BMJ Quality & Safety*, 22(5), 394-404. <https://doi.org/10.1136/bmjqs-2012-000939>
24. Kaplan HC, Brady PW, Dritz MC, Hooper DK, Linam WM, Froehle CM & Margolis P (2010). The influence of context on quality improvement success in health care: a systematic review of the literature. *Milbank Quarterly*, 88(4), 500-559.  
<https://doi.org/10.1111/j.1468-0009.2010.00611.x>
25. Brandstorp H, Halvorsen PA, Sterud B, Haugland B & Kirkengen AL (2016). Primary care emergency team training in situ means learning in real context. *Scandinavian journal of primary health care*, 34(3), 295-303.  
<https://doi.org/10.1080/02813432.2016.1207150>
26. Bandow D (2001). Time to Create Sound Teamwork. *Journal for Quality and Participation*, 24(2), 41-47.
27. Salas E, Sims DE & Burke CS (2005). Is there a "Big Five" in Teamwork? *Small Group Research*, 36(5), 555-599.  
<https://doi.org/10.1177/1046496405277134>
28. DiMeglio K, Padula C, Piatek C, Korber S, Barrett A, Ducharme M, Lucas S, Piermont N, Joyal E, DeNicola V & Corry K (2005). Group cohesion and nurse satisfaction: examination of a team-building approach. *Journal of Nursing Administration*, 35(3), 110-120. <https://doi.org/10.1097/00005110-200503000-00003>
29. Salas E, Rozell D, Mullen B & Driskell JE (1999). The Effect of Team Building on Performance: An Integration. *Small Group Research*, 30(3), 309-329. <https://doi.org/10.1177/104649649903000303>
30. Chen J, Bamberger PA, Song Y & Vashdi DR (2018). The effects of team reflexivity on psychological well-being in manufacturing teams. *Journal of Applied Psychology*, 103(4), 443-462. <https://doi.org/10.1037/apl0000279>
31. Marks MA, Sabella MJ, Burke CS & Zaccaro SJ (2002). The impact of cross-training on team effectiveness. *Journal of Applied Psychology*, 87(1), 3-13. <https://doi.org/10.1037/0021-9010.87.1.3>
32. Baroutsi, N. (2014). Communication in Joint Activity : Investigating Team“ Communication Pattern in a Dynamic Decision Making Environment (Publication Number diva2:764428) [Master's Thesis, Linköpings Universitet]. DiVa.
33. Byrne S (2016, July 28). 5 Team Building Exercises For Setting Goals You'll Stick To.  
<https://blog.trello.com/5-team-building-exercises-setting-goals>
34. Antes AL, Kuykendall A & DuBois JM (2019). Leading for research excellence and integrity: A qualitative investigation of the relationship-building practices of exemplary principal investigators. *Accounting Research Journal*, 26(3), 198-226.  
<https://doi.org/10.1080/08989621.2019.1611429>
35. Zhang XC, Lee H, Rodriguez C, Rudner J, Chan TM & Papanagnou D (2018). Trapped as a Group, Escape as a Team: Applying Gamification to Incorporate Team-building Skills Through an 'Escape Room' Experience. *Cureus Journal of Medical Science*, 10(3), e2256. <https://doi.org/10.7759/cureus.2256>
36. Moore JM, Everly M & Bauer R (2016). Multigenerational Challenges: Team-Building for Positive Clinical Workforce Outcomes. *Online Journal of Issues in Nursing*, 21(2), 3. <https://doi.org/10.3912/OJIN.Vol21No02Man03>