

Cross-Skilling

Enhancing Team Performance Through Cross-Skilling

Introduction

In the competitive landscape of software development, the agility and resilience of a team are paramount. Drawing inspiration from the world of cricket/sports, where players often excel in batting, bowling, and fielding, we find a powerful metaphor for the software development team. Just as versatile cricket players enhance their team's adaptability and resilience, software teams benefit from members with a broad range of skills.

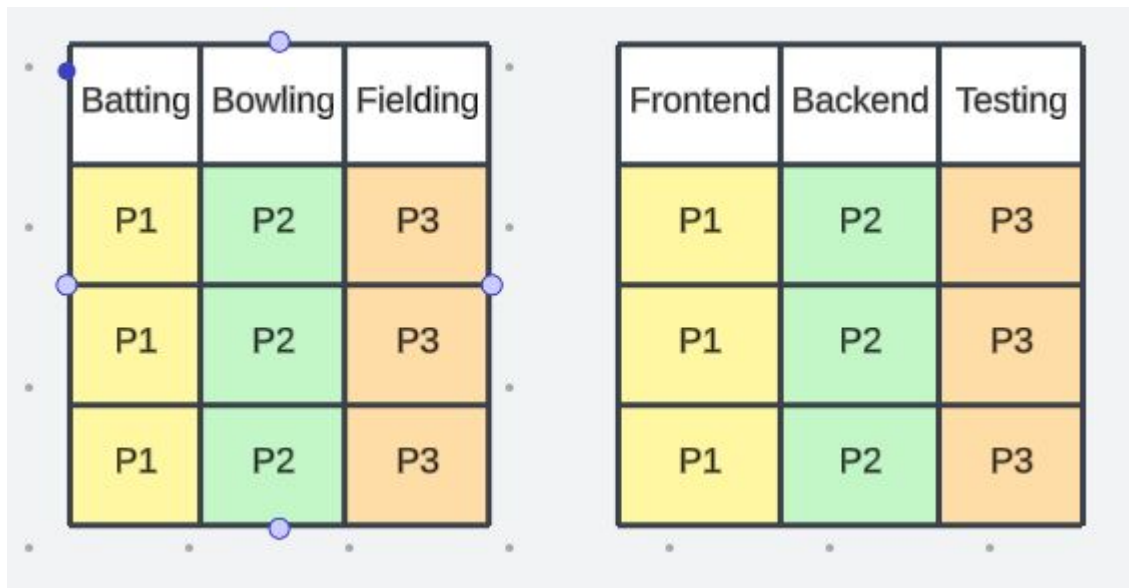
This article explores the strategic importance of cross-skilling, highlighting how it transforms high-performance teams from merely functional to exceptional.

The Foundation: Cross-Functional Team Structure

Transitioning from functionally oriented teams where each individual belongs to a specific function and is trained in that function to a cross-functional teams is a strategic move that sets the foundation for a high performance team. However, in the first instance, all you have done is you have brought together these individuals earlier belonging to different functions under a single unified leadership and a true team that will deliver end to end features to customers.

In the early phases of such a team, each team player is skilled deeply in one single skill or function. e.g. in case of cricket it could be bowling, batting or fielding while in case of scrum this could be like an engineer being an expert in backend coding or frontend coding or tester or another very specific skill like devOps.

These individuals represent I-shaped individuals (see the pic below). These individuals have deep expertise in their specific functions.



Challenges in a team with all I-shaped Individuals

A Team that is composed of mostly I-shaped individuals is handicapped in several aspects. Even though you call it a team, the amount of collaboration in such a team is very minimal. It also poses many practical challenges such as balancing the work for these individuals. E.g. in case a team has 2 frontend engineers, 2 backend engineers and 1 testers, there is no guarantee that in a given sprint team will get work such that all 5 engineers are uniformly utilized and have balanced work. There will be sprints when team may need to do majority of backend work and likewise sprints with majority of work in frontend and so on. In case all the tickets are completed towards the end of the sprint, the tester may not have enough work in the beginning of the sprint while it become a bottleneck towards the end of the sprint. This is a very usual complaints we hear when we have a dedicated tester in a team.

Overcoming these challenges by creating T-Shaped Individuals through cross skilling

A good solution to this approach is to systematically cross skill your team members such that one team member can work in more than just one skill. They should retain their deep expertise in one area so that they can guide other engineers on the same, but they should not be limited to do basic work in other skills. e.g. a frontend engineers, if there be a need should be able to do some of the backend work as well. In my opinion, everyone in the team should be able to test any ticket though team may have an expert senior tester who guides each member during QPS sessions towards how to ensure each ticket is well tested before its delivered.

Strategically identifying leaders by developoing X-shaped Individuals

In addition to T-shaped individuals, if team leaders can identify and spot few individuals who can be groomed into X-shaped individuals (all rounders), it creates a totally different chemistry in the team. I am sure readers are familiar with players like Kapil Dev and MS Dhoni who was an all rounder and the impact such an individual could make to world of cricket teams. Like wise in history there have been few gifted all rounders and leaders who understand big picture naturally and pitch in where ever team needs them most.

X-shaped individuals may not be the best deep experts in your team, but these are the individuals who can pick multiple skills and are good average in all skills. They also have good interpersonal and leadership skills because they understand the big picture and can maneuver the team as per the demands of the situation.

As a leader if you can spot such individuals early in the phases of team growth then you are spotting good potential team leaders.

I like to give an example of Sachin Tendulkar and MS Dhoni here. Both are remarkable players. However, while Sachin was the best batsman in the team, MS Dhoni was the best captain of the team. They both are valuable for the team. But a good leader and coach differentiates between such individuals and provides them appropriate roles where both can bring out their best potential. So coaches and senior leaders have to navigate this carefully without creating a competition among team members but showing them respect for each role and letting each team member shine in their own highest potential.

Evolving the team from I-shaped individuals to a good blend of T-shaped and X-shaped individuals

Role of senior leaders is to help evolve teams strategically from the one composed of mostly I-shaped individuals to a good blend of T-shaped and X-shaped individuals. Using this approach leaders create exciting chemistry and collaboration within team members bringing out highest potential of their team members.

T-shaped and X-shaped individuals do not come without cost. It requires constant emphasis on cross skilling and investing in your people. Lets discuss some of the challenges posed by this revolution in your team.

Challenges and Strategies in Cross-Skilling

Cross-skilling, while essential for creating high-performance teams, is not without its challenges. One of the primary hurdles is the resistance from team members who may feel overwhelmed by the prospect of learning new skills outside their comfort zone. Additionally, the initial slowdown in productivity as team members climb the learning curve can be a concern for project timelines. There's also the risk of diluting expertise, where team members might become

generalists without deep expertise in any area, potentially impacting the quality of specialized work.

To navigate these challenges, several strategies can be employed:

- **Structured Learning Pathways:** Develop clear and structured learning pathways for team members, tailored to both the individual's career goals and the team's needs. This approach ensures that cross-skilling efforts are aligned with personal development, making the process more engaging and less daunting.
- **Mentorship and Peer Learning:** Foster a culture of mentorship and peer learning within the team. Experienced team members can mentor others in their areas of expertise, creating a supportive environment that encourages growth and knowledge sharing.
- **Balanced Skill Development:** While promoting cross-skilling, it's crucial to maintain a balance between developing new skills and deepening existing expertise. Encourage team members to become T-shaped or X-shaped professionals, who possess deep knowledge in at least one area while also having a broad understanding of other domains.
- **Recognition and Rewards:** Recognize and reward efforts and achievements in cross-skilling. This can be through formal recognition programs, opportunities for career advancement, or other incentives that highlight the value the organization places on continuous learning and adaptability.
- **Real-World Application:** Provide opportunities for team members to apply new skills on real projects. This not only helps in solidifying the learning but also demonstrates the practical benefits of cross-skilling to both the individual and the team.

By addressing the challenges of cross-skilling with thoughtful strategies, organizations can build more resilient, versatile, and innovative teams capable of meeting the complex demands of modern projects.

Take Away: Summary

- Slow down to speed

Case Study: The Cross-Skilled Sports (Cricket) Team

In the world of cricket, the concept of cross-skilling is epitomized by the all-rounder, a player who excels in both batting and bowling, and often, fielding as well. Consider the transformation of a cricket team that once relied heavily on specialists but evolved to include several all-rounders. This shift dramatically increased the team's flexibility, allowing it to adapt to various game situations more effectively. For instance, when key bowlers were injured, batting-oriented all-rounders could step in, ensuring the team remained competitive. Similarly, in software development, team members who can wear multiple hats—be it in coding, design, testing, or

project management—enhance the team's ability to navigate challenges and seize opportunities.

One notable example is the transformation of a cricket team that integrated cross-skilling into their training regimen. Players were encouraged to develop secondary skills, which led to remarkable outcomes in international tournaments. Batsmen improved their bowling skills, contributing crucial overs during tight matches, while bowlers enhanced their batting, adding depth to the lineup. This approach not only improved individual player performance but also significantly boosted the team's overall strategy and resilience.

Conclusion

The journey from a strictly functional teams with I-shaped individuals to a cross-functional and cross-skilled team with T-shaped and X-shaped individuals is both a strategic necessity and a transformative opportunity in today's fast-paced and complex project environments.

Just as a cricket team with players equipped in multiple functional areas and few all-rounders is better equipped to face the uncertainties of the game, a software development team that embraces cross-skilling can navigate project challenges more effectively, driving innovation and achieving superior results.

Cross-skilling fosters a culture of higher collaboration, continuous learning and adaptability, essential qualities for high-performance teams (HPTs) aiming to thrive in the dynamic landscape of technology. By encouraging team members to expand their skill sets, organizations can build teams that are not only versatile and resilient but also deeply engaged and motivated by the opportunities for personal and professional growth.

Call to Action

As we look to the future, the importance of cross-skilling in building high-performance teams cannot be overstated. I encourage team leaders and members alike to embrace the principles of continuous learning and versatility. Share your experiences with cross-skilling in your teams. What strategies have you found effective? How has cross-skilling impacted your team's performance and morale? Let's continue the conversation and learn from each other, as we strive to build teams that are not just functional, but truly exceptional.

By fostering an environment where cross-skilling is valued and supported, we can unlock the full potential of our teams, ensuring they are prepared to meet the challenges of today and seize the opportunities of tomorrow.