

To Help Your Team Learn, Set Them Up for Productive Failure

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Failure is often viewed as something you need to avoid, especially by new managers who are eager to prove their competence or have been previously conditioned to think that way. But failure isn't a bad thing. In fact, it can help in fostering your team's long-term sustainable development.

While avoiding failure may protect short-term performance, it hinders long-term growth and innovation. When employees take less risks and stay within their comfort zones, they miss opportunities to stretch their abilities and experiment with innovative solutions.

If you're a first-time manager, you may want to rethink the role of failure within your teams. Instead of waiting for failure to happen (so employees can learn from it), you can intentionally embed failure into team tasks with the explicit goal of learning. This is known as productive failure, a scientifically tested method that can drive employee learning and growth, foster innovation, and enhance team resilience.

But this isn't about setting your employees up for failure. To effectively utilize productive failure methods, you'll need to organize a balanced portfolio of tasks with built-in roadblocks. After

employees have completed the carefully designed tasks, you will need to hold a feedback and debrief session to talk through the learnings.

So, where do you begin?

Designing a Portfolio

The key to designing failure tasks lies in creating a balanced portfolio of both performance goals and learning goals.

Performance goals include tasks that focus on achieving set goals where failure is not acceptable. They may involve routine activities such as accurately processing payroll or managing client deliverables on a high-stakes project where success is imperative.

Learning goals are designed to push employees beyond their current abilities. These stretch tasks are specifically chosen for their potential to cause failure and struggle, which drives exploration and creative problem-solving. Examples of such tasks could include creating a new product feature from scratch or leading a cross-functional team for the first time on a low-key project.

Separating these two goals is critical for productive failure to work effectively. By clearly communicating which tasks are learning vs. performance-focused, managers can normalize failure in the learning zone, creating a safe space for experimentation and growth.

Building in Roadblocks

Once the portfolio of performance and learning tasks is established, the next step is to design the roadblocks for the learning tasks.

For example, in anticipation of the AI push in their organization, a first-time manager may task their team to design an AI-driven recommendation feature for the company's e-commerce platform. Given the novelty of the technology, the task is likely to push the team beyond its current skill sets and knowledge. To create opportunities for employees to engage in deep problem-solving, rather than simply executing known solutions, a manager could:

1. Use constraints.

Deliberately place constraints on the task that help employees to think creatively. For example, limit the amount of training data the team can access for the AI model, forcing them to get creative with data augmentation techniques or identifying proxy data. Additionally, you could add a time constraint by shortening the project from six weeks to four weeks to drive a sense of urgency and focus. This might prompt the team to explore alternative, quicker methods of implementation (e.g., open-source libraries or pre-trained models) instead of relying on typical solutions.

2. Include contrasting cases.

Design tasks that involve comparing different approaches or scenarios. For example, you might ask the team to compare two different recommendation algorithms: one based on similar users' preferences and the other based on the product's features. The challenge lies in deciding which model or combination is better and can help your team think more strategically.

3. Throw in extreme boundary conditions.

Create tasks that push employees to deal with extremes outside the norm. This might involve introducing an edge case where the AI feature must work with extremely limited user interaction — for example, generating product recommendations for new customers with minimal browsing history or purchase data. This pushes the team to think outside the box, perhaps leveraging demographic data or contextual clues to develop creative solutions that would not have been necessary in a typical use case.

4. Create uncertainty.

Set up the task with incomplete or ambiguous information, for example, if you know that users don't typically fill in all of their user preferences data. The team must work through this uncertainty, conducting user research, cleaning the data, and determining how to create meaningful product recommendations in the absence of clear guidelines. This builds resilience and adaptability.

5. Anticipate novice thinking.

Anticipate the kinds of novice-level solutions that less experienced employees might propose and construct the task in a way those solutions will not work. For example, novices might initially suggest using a simple rule-based system for product recommendations (e.g., if the user bought item A, recommend item B). However, the task could be structured in a way that requires integrating machine learning algorithms and cross-sell between diverse product categories — something that a basic rule-based system could not achieve.

6. Deliberately suggest sub-optimal or failed strategies.

The manager might suggest that the team start by recommending only the most popular products to every user, even though this strategy has been shown to result in poor user engagement and satisfaction in previous iterations. This roadblock encourages the team to rethink personalization and explore more nuanced, data-driven approaches that take into account individual user preferences rather than relying on one-size-fits-all methods.

7. Encourage exploration and manage the struggle.

Once the team encounters roadblocks, it is essential that managers resist the temptation to step in and solve problems for them. The struggle is where real learning happens, and employees should be encouraged to collaborate and try different architectures (e.g., neural networks vs. decision trees) to find a solution. This does not mean there is no feedback during the process. Instead, the feedback is to affirm the goal of learning task, assure psychological safety, and encourage greater exploration.

Such an explorative bent requires more time, but it also results in deeper learning and better and more innovative solutions in the longer run. As a new manager, you need to design a longer development runway for your team.

Holding a Debrief Session

The next crucial step is to transform the failures into valuable learning through a feedback process. Often, there is no correct solution, so the manager could compare the team's novice solution to a more advanced, successful approach. In such cases, you can examine the experts' ways of approaching the problem, the strategies they've deployed, or criteria they've used to evaluate success. This process allows employees to internalize the nuances of expert thinking, assembling a deeper understanding of why some strategies fail and others succeed. Moreover, these in-depth debrief sessions aid in structuring a team culture that embraces failure as a norm.

You can also ask some reflective questions to help turn failure into a powerful learning experience. For example:

- What assumptions did you make when approaching the task?
- What seemed like the right solution initially? Why did that seem like the right solution?
- How did your approach differ from expert methods, and what made the expert solution more effective?
- What key insights can we take from this failure to apply to the next challenge?

Designing failure tasks is not about setting employees up to fail, it's about creating opportunities for them to explore, learn, and succeed in the long run. Productive failure experiments intentionally design tasks that challenge employees, allowing them to fail in a structured and safe way that leads to growth. By carefully balancing performance and learning goals, crafting tasks with built-in roadblocks, and fostering a culture that views failure as a necessary step toward innovation, first-time managers can unlock the true potential of their teams.