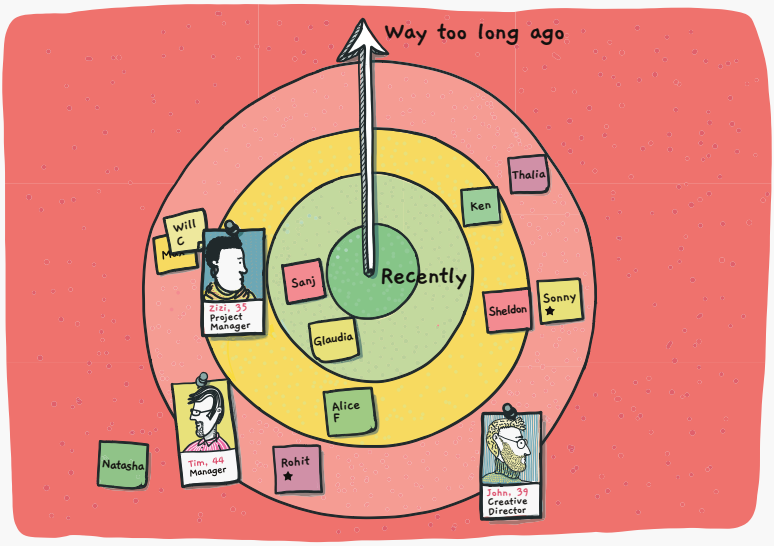

Mastering Collaboration in a Product Team

70 Techniques to Help Teams Build Better Products

Natasha Hampshire
Glaudia Califano
David Spinks

Apress®

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ABOUT THE AUTHORS

Natasha Hampshire is a multidisciplinary designer with a passion for creating products that improve people's lives. She gets great satisfaction from being part of a truly collaborative product team.

Natasha works on a freelance basis so that she has the flexibility to spend more time with her family in Brighton, as well as to work on other activities, whether that is writing or mentoring students looking to break into industries that require product innovation.

Glaudia Califano is an agile and lean practitioner and mentor, working with and within teams. She loves to be hands-on, coming up with new ideas, and learning from those around her.

Glaudia divides her time between the UK and Spain with her partner and her two dachshunds.

David Spinks is an experienced software developer, Scrum Master, and accredited trainer of Scrum and the Kanban Method. He believes in creating environments where empowerment, autonomy, and flexibility enable teams to do the best work possible.

David is based in Buckinghamshire, UK. He enjoys traveling, keeping fit, the outdoors, and spending quality time with his guitar.

Glaudia and David are the authors of the book, *Adopting Agile Across Borders: A Guide to Navigating Cultural Complexity in Agile Teams and Organizations*, also published by Apress.

ABOUT THE ILLUSTRATOR

Sandra Staufer creates illustrations that personalize her clients' products and warm customers' hearts. She loves challenge – whether it's cycling up the mountains of her Swiss homeland or lending life to even the trickiest of clients' briefs. She knows that well-targeted illustrations have the power to "show and tell" in an engaging way.

ALL TOGETHER NOW

Kick Off

What do you think of when you imagine a great product team? Go on, think about it for a second...

Seriously, think about it before reading on. We will wait for you...

Got something? Cool.

If your answer was along the lines of, "all of the originally planned features were built by the team, and they delivered the product according to the initially planned schedule and budget," then this book might just change your perception of what it means to have an effective product team.

If, on the other hand, you answered with something like "the team delivers something that is valuable," "the team produces something that meets a need," "the team solves problems," or something similar, then you may already have the mindset that we believe is needed to be part of a great product team.

Having such a mindset is a good starting point; however, product teams need an array of practical tools in their toolbox in order to successfully work together, deliver products of value, and solve people's problems. In this book, we have brought together a plethora of practical tools and techniques that can be used collaboratively to help you succeed with modern product development. Few of them will help you with the "what" or the "how" but instead, and more importantly, the "why." Why should your product exist? Why would people want to use it or buy it? These "whys" are the fundamental questions to be answered for any modern-day product initiative and to answer them requires you to tap into deep levels of creativity and innovation.

And by "you," we don't mean you as an individual, but as a collective. Aside from some rare exceptions (and they are exceptions), great products require a great team of people to develop them. Notice where we have placed the "great" there. It certainly helps to have great people, but it helps even more to be a great team.

Great teams have great collaboration between its members. Collaboration goes much more deeply than people completing a task and then efficiently handing over to a teammate. This could be described as cooperation. And it is hard to identify a group of people working in this way as a team at all. Instead, collaboration is what makes a team a team. The team as a whole feels the challenges they face as one. They build empathy for one another, and for those whose needs they serve. There is a sense of collective accountability for what the team does, its achievements, its failures, and above all, how the user experiences the product created by the team.

This book is for such teams. The collection of tools and techniques in this book are to be used for collaborative product development. The intention is that they are not for an individual "Product Manager," "Product Owner," or "User Experience (UX) Designer" to use in isolation, but unless stated otherwise, they are tools that the whole product team can – and should – get involved in using. Too many times, we have seen individuals craft the "why" or separate UX teams carrying out user research in isolation, resulting in the handover of requirements to a team focused only on building the features. This approach relies on the luck and judgment of an individual or team of specialists, and is a waste of the collective intelligence and creativity that could be drawn upon.

This is not to say that we are advocating that all team members must be made generalists. Some of the tools and techniques presented in this book may be seen as belonging in the domain of a particular specialism, such as UX research or product management, and from our own experience we understand the importance of expert knowledge. What we are recommending though is to involve everyone in the creative and knowledge acquisition process, to utilize the wide range of available experience and perceptions, while encouraging specialists to lead, mentor, facilitate, and guide rather than working in isolation.

With better collaboration comes better products. Mastering collaboration as a product team gives you the best chance of producing the best products. Exploring and practicing the tools in this book as a team will help you (and yes we mean "you," as in a collective group of people) master collaboration and build great products.

For us, truly great products are those that serve a purpose to people. Be it to entertain, to educate, to make life easier, to make life healthier, to save time, to save the environment, to do social good, or anything else that people find valuable. Making a profit for many organizations is of course important, but it is something that we think should be viewed as a side effect of creating something really great. To solely chase profit as your main motivator is more than likely to lead to failure.

This collection includes tools and techniques from respected thought leaders from across a variety of industries, and they have been consistently proven in the field. Where appropriate, we have acknowledged the source and provided further background information in the Appendix. The collection also includes ideas expanded upon from the authors' own experience.

The aim of this book is not to provide an in-depth explanation, analysis, and critique for every tool and technique featured. Such an endeavor would fill volumes! You will not become an expert in using any of the tools and techniques by reading this book. You will need to explore them further and, more importantly, practice using them. Instead, our goal is to spark curiosity. We want to take you on a tour of the rich array of options available to you for product discovery and innovation (while having some fun on the way!). For each tool or technique, we give an overview, including why it might help you as well as accompanying "pointers." Think of these as a guide for getting started. For some of the tools, we have included a "Try This" – further ideas that you can experiment with. We have also provided further resources in the Appendix for you to explore more deeply the tools of particular interest to you.

It is unlikely that you would be successful by using just a few of the tools in this book in isolation. Different tools are enablers for different levels of learning, and many build on top of one another. Before the presentation of the tools and techniques, we have included a section "Putting Elements Together" with examples of how some of the tools and techniques might

be combined. Remember that every team, every problem, every product is unique, so judgment based on skill and experience is required to work out what to use and when in context.

Before all that, we need to set some context. We begin by providing some definitions for certain terms that we will be using throughout the book. They may seem innocuous enough at first glance, but it is important to establish a shared understanding of our meaning.

Terminology

We have used the terms "product," "problem," "users," "customers," "stakeholders," and "participants" throughout the book. Let's be clear what we mean by these.

We use the term "product" broadly. The term product could be used to describe a tangible good such as a car, a mobile phone, a hammer, or a food mixer for example. It could also be used to describe something more intangible, such as a website or a mobile app. Or, it could be something that is not a "thing" at all, but is still something that has been created to provide value to others, for example, a customer support service, coaching, or providing an experience. Some might refer to these latter products as "services." In the interest of brevity, we use the word product to encompass all of the above. This is because, when developing something, we believe consideration should be given to everything that surrounds it. From the good itself to how a user acquires it, how they interact with it, and how they are supported. In short, by product, we mean the entire experience that someone has, whatever is being provided.

A product solves a problem for its users. We use the word "problem" also as a broad term to encompass a need or an impediment, as well as a desire that a person might have. Products provide value because they solve a user's problem, whether they realize they have a problem or not. If the problem doesn't exist for a user, then the product shouldn't exist either (the product probably won't exist for very long if there is not a problem to be solved anyway).

We make frequent reference to "users," "customers," and "stakeholders." A user is anyone that uses a product. And by that we mean all users – it is important to be inclusive and consider accessibility for everyone.

A customer is anyone that pays for a product. Very often, the user and the customer of a product may be the same person. However, there are situations where that may not be the case. For example, the person in charge of ordering office supplies is a customer of the office supply company, but the other workers in the office are users of the products that are supplied. A stakeholder is anybody that has an interest in your product. This could be investors, sponsors, marketers, or sales people for example (you might go so far as regarding customers and users as types of stakeholders).

When we talk about "participants" we are referring to people that are taking part in some kind of test in relation to our product. This could be to get feedback on a product idea, to learn more about people's desires or problems, or to observe how people behave in a given set of circumstances for example. Test participants could be from the product team itself, though in most circumstances, it makes more sense to recruit them from outside.

Validating assumptions with participants is central to a lot of the tools and techniques in this book. The purpose is to gather evidence on the validity or not of product ideas and related assumptions. This requires extra effort that may be seen as wasteful; however, it is a vital part of modern product development. A phrase that has always stuck with us is "value is only an assumption until you have put something into the hands of the user."

The secret is about exerting appropriate effort given your level of understanding of users, customers, and their problems. This is where an understanding of the Truth Curve can help, which we discuss next.

The Truth Curve/Build Curve

Sometimes the truth hurts. You might think that you have a great idea for a product, enthusiastically getting it developed and launched only to find... nobody likes it or buys it. Ouch! Underlying every story of a failed product are untested assumptions; that there is a problem for the product to solve, that it is viable to produce the product, that users will use it and like it, that customers will pay for it, etc. Developing a product while there are such assumptions that have been untested can be dangerous and inherently

risky. This is something that Jeff Patton[1] for one speaks widely about, and he has inspired us to write about and expand upon it here.

These days, good product development involves more than just efficiently building a product with good quality. It encompasses more than designing the features of the product itself and working out how to implement your ideas in practice. Throughout the product life cycle, work should include gathering evidence to validate whether the product solves user's problems or not, and testing assumptions that may have been made. Validating your ideas and assumptions should be something that you are continuously doing and not something that is all done upfront.

This might feel like causing extra work and unnecessary delays, after all, it is obvious that your idea is a great one right? Patton describes how entrepreneurs are usually full of excitement, energy, and positivity, despite the well-documented low success rate of startup companies. What justifies such optimism? The answer lies in our own biases. As human beings, we are prone to losing our own subjectivity when it comes to "our own baby."

This is why a big part of modern product development (and many of the tools in this book) includes a focus on validating assumptions and gathering evidence for which direction to take with your product. And with some smart thinking, the effort involved will be in sync with where you and your product are on your journey, and the risk involved. You may just be surprised how lightweight this effort actually needs to be, the vast majority of the time.

We came across the "Truth Curve" by Giff Constable as seen in Figure 1[2] (Constable acknowledges alternative versions created by Jeff Patton and Jeff Gothelf that he refers to as "The Build Curve"[3]). These are a great way to help to get past our human biases, of thinking about aligning the right amount of effort, given the amount of evidence that our ideas are truly valuable, all while minimizing risk, waste, and delays.

1 Patton, J. (2018). *5 things you'll need to fix Agile product ownership.* Open Charity. www.youtube.com/watch?v=bgdVJVeqHX8

2 Constable, G. (2013). *The Truth Curve.* https://giffconstable.com/2013/06/the-truth-curve/

3 Constable, G. (2021). The Truth Curve and the Build Curve. https://giffconstable.com/2021/04/the-truth-curve-and-the-build-curve/

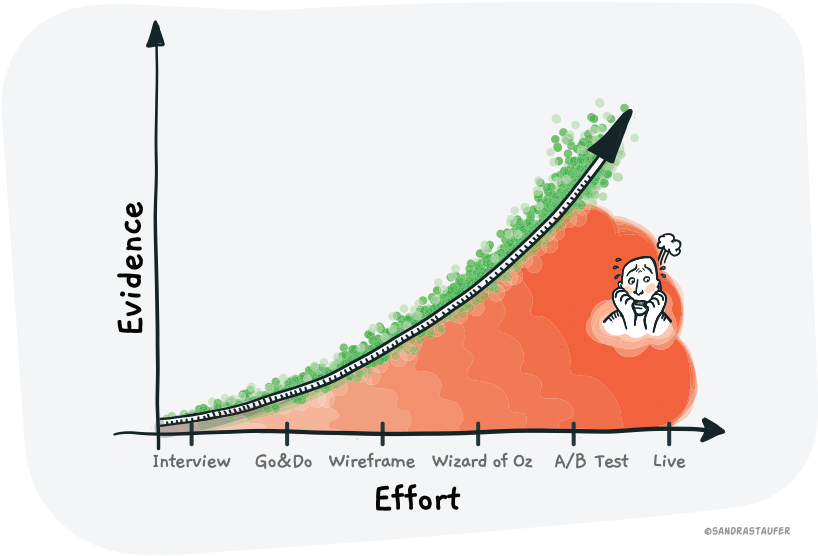

Figure 1. *The Truth Curve*

The y-axis represents the amount of evidence you have for your idea. The x-axis represents the level of effort, in carrying out an experiment, testing out an idea, or proving or disproving a hypothesis. If you have little or no evidence to support your idea, carrying out some interviews can be relatively low effort. This may give you some positive indications; however, the level of evidence that this technique builds is limited. At a different point, you might have built further evidence using other techniques, and are ready to gather more by building a lightweight wireframe for users to look at, try out, and give feedback on. This results in even greater learning on top of that from the interview and hence, greater evidence to continue forward with the initiative. Note that these examples and those shown in Figure 1 are just examples; all manner of different techniques that require different levels of effort could be swapped in for the ones shown.

The model illustrates the folly of using the wrong way to validate your product initiative when you have an unsuitable level of evidence for it. Building and launching a product at scale is a lot of effort and expensive, so you better have some good evidence that your idea is a good one. If not, you are taking a big risk if you are wrong. You could bankrupt your company, lose your job, send your family into poverty, irreparably tarnish

your reputation, and maybe your partner leaves you. OK, that might be extreme, but hopefully we can at least agree that the stakes are high. It is a bit like deciding to climb to the summit of K2 without safety ropes and having no idea if you are fit and skilled enough to do so. That would be just unwise. At the same time, if you were an experienced mountaineer, you don't need any evidence that you could climb something simple, say a flight of stairs. Carrying out an analysis here would be equally unwise and wasteful – you just do it without thinking about it.

The thinking here is to challenge yourself to consider how much evidence you have to support your ideas and where assumptions have been made. It is then a case of applying appropriate techniques to test these assumptions, and grow the level of evidence appropriately, given where you and your product are in your journey.

"Riding the curve" like this helps to reduce risk and has the bonus of enabling us to refine our ideas based on feedback. Evidence can be built up to the point that it makes sense that we can justifiably build and launch our product at scale. Activity that falls underneath the curve (effort without justifiable evidence to go that far) could be considered to be unnecessarily risky, and everything above it could be considered to be unnecessarily wasteful. This book is full of collaborative tools and techniques for your product team to apply at different points on your own Truth Curve journey.

The last thing we will say on this is to advise you not to think about your journey as a linear one, or that there are a set of predefined steps to follow. There is no magic formula that we can provide that will give you a sequence of tools from this book to apply. Each product, each context, and each product team is going to be different and go through its own learning journey. The nature of product development means that there are going to be bumps in the road, obstacles, and unexpected twists and turns that mean you might feel as if you are sometimes going backward. It might feel as if you need to start again, or that you are learning nothing and need to change direction, and try out a different approach in order to make progress again. Luckily, this book is full of alternative tools that you can try if one is not working for you.

Before launching into deploying the tools and techniques, a product team needs to get organized on how it will collaborate and work toward their goals, rather than acting as a group of individuals without a single coherent purpose to what they are doing. Next, we discuss one way that a product team can discover, build, and validate as one.

Discover, Build, and Validate As One

In many organizations, very often, the focus is on optimizing the part of the system "where the work happens," in other words where the product is actually built. Teams are seen to deliver products or features, and when one is completed, they move on to the next one. The aim is for efficiency and speed of production in many cases. It is a bit like a factory with orders coming in and product features coming out the other end, regardless if an actual production line is involved.

This approach worked brilliantly when we actually had factories, the types of goods being produced followed a set design, and the work had steps that were repeatable. Now, much of this type of work has been automated, in theory freeing up humans to be creative and innovative. And yet, in many companies, humans are still treated like factory workers, assigned a "station" to complete specific tasks. We see this as a wasted opportunity.

As we move through the 21st century, many of the "easy" problems have been solved. At the same time, customer's expectations, impatience, and fickleness are higher than ever. More of the problems of today involve more complexity and require human ingenuity to solve. The solutions are non-trivial and usually just one of many possible options that could have been selected. Results are based on guesswork, luck, or taking an approach that acknowledges that solutions are discovered through openness to learning and adjustment along the way.

Success today often seems to require a superhuman effort. Unfortunately, super-humans are rare. This does not mean that we should be seeking and relying on these heroic individuals, but instead be smarter about how we utilize collective intelligence.

Modern product creation is going beyond reliance on heroic individuals, to considering the importance of the team. Teams, not as order takers and delivery factories, but as a single cohesive unit that solves problems. Teams that work together to understand people's anxieties, identify opportunities, hypothesize, innovate, generate options for solutions, experiment, and validate. This book is jam-packed with tools for collaboration, but some consideration needs to be given to bringing it all together, and how a team can actually work to discover, build, and validate as one.

In our opinion, the key is to create a shared understanding of what is actually going on – the progress being made, what questions are unanswered, and where should team members' effort go next. In short, visualization of the work. This is especially important in a world where much of the work we do is related to learning and is therefore intangible; we cannot necessarily "see" it or "touch" it.

Typically, such visualizations take the form of a physical or electronic board, with columns that represent functions or activities applied to the work, which are in turn represented by tickets. Progression of work is indicated by the tickets moving from one state to the next, from left to right. Such visualizations create better transparency and can be used by the team and stakeholders in collaboration to progress work through to the point where value can be realized.

However there are some pitfalls. It is easy to design a visualization that allows an individual, a team, or even a department to focus on one column as "theirs," a trap that leads back to a factory setting, with handoffs and an abdication of responsibility outside of one's immediate function. Extra emphasis is needed that the visualization should show what is happening to the work rather than who is currently progressing it in order to foster collaboration and collective accountability.

In addition, many visualizations only provide a glimpse of the full picture, usually concerning themselves with the part of the process when product features are actually built. If we are to empower product teams with wider responsibility beyond simply creating and releasing a product, the visualization that represents that responsibility should be designed to cater for this.

A true product team are problem solvers; they build an understanding and empathy with their users, they understand their problems, they explore the viability of options, and they try to create the best solution to the problem. They continuously validate that the work they do is valuable. This could include monitoring use of a new product feature, getting feedback from users, analyzing generated revenue, and gaining new learning and evidence as described in the previous section. Success is not measured in only getting things done, but by what the product team is learning. The point is to develop a robust process, modelled by the visualization that enables learning and delivery of value to users, with minimal waste.

When creating innovative products, everything that a product team thinks it knows – from who the users are and what problems they have, all the way to whether users will use a particular product to solve these problems – could be considered to be an assumption unless proven otherwise. The key is not to frame work as activities to complete, but as assumptions to be validated or invalidated in as lightweight a way as possible given the current accumulation of knowledge.

With this mindset, the visualization can actually be really simple, as shown in Figure 2.

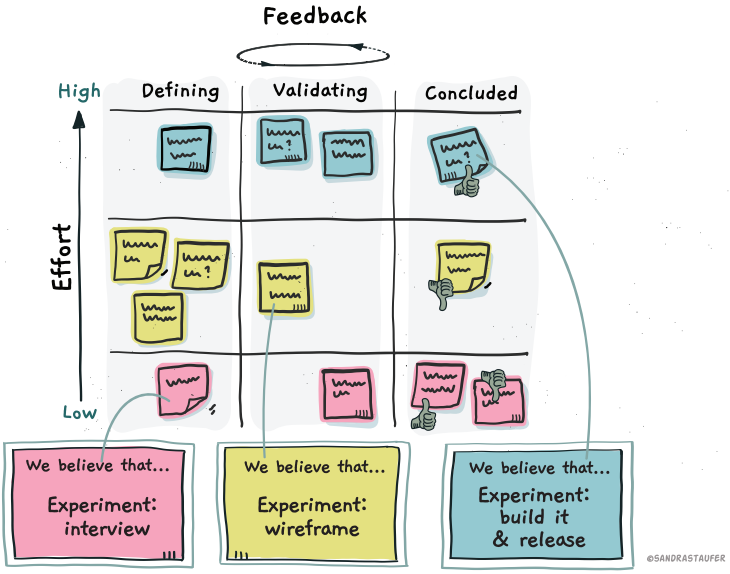

Figure 2. *Example board for modeling the flow of learning*

In this example, work items pass through a "defining" stage. As part of this defining stage, the product team may design the experiment (in other words, what technique(s) will be employed to learn what you want to learn) with explicit measures to determine the validity of the underlying assumption. The work item moves into "validating" while the experiment is being carried out. When the experiment has been completed, the work item moves into the final stage to show that the experiment has been

concluded, with a clear indicator of whether the assumption was held to be true or not. These results give the team feedback and insights as input for the refinement of the next increments of learning.

Swimlanes, or color, are powerful visualization tools, and can be used to distinguish work. In this case, in Figure 2, swimlanes and color are used to distinguish work items of varying effort (with reference to the Truth Curve), with the highest effort experiments at the top of the board and the lowest effort experiments toward the bottom. Low effort experiments could include carrying out an interview in order to learn about interest in your idea. High effort experiments include the actual building and delivering of something to real users. Note that this also allows you to learn; you ultimately learn about the viability of your product by seeing if people actually use and/or buy it. The exact number of categories of experimental effort is very much context specific; we use low, medium, and high effort as a simple example. If it helps, swimlanes or color could be used to visualize different categorizations, for example, swimlanes for relative effort, with different colors used to indicate an order of priority.

Such a visualization becomes the center piece to monitor progress and see the bigger picture as you use the tools in this book.

To emphasize again, we have just provided simple examples. The key is to develop and evolve your own visualization and system according to your context. You are unlikely to design the perfect solution at the start, so, over time, use what you have and recognize where there are shortcomings and use that as motivation to improve. If for example, it might make sense to break a "validating" step down into constituent parts, try it. Experiment.

The visualization creates the basis for transparency for the product team, enabling them to discover, build, and validate as one. How you use the tools and techniques in the following section is down to your own creativity. We do not want to prescribe exactly what to do in practice, only to encourage making work as transparent as possible for your whole product team and your stakeholders.