
Starting and Developing Agile Teams

A Facilitation Guide

ProAgile

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A Team Development Framework

Why teams don't work

A well functioning team can create magic, but here are some disturbing facts from teamwork in the real world:

- Research that compares the performance of teams with what is produced by an equivalent number of individuals who work by themselves almost always find that the individuals outperform the teams [1].
- In practice five out of nine interventions/attempts to improve team performance have no positive effect whatsoever! [2]
- There is much agreement in the research community on what works and not when it comes to helping teams get to high performance.

So, in theory we do know how to make things work. In practise, organizations do not apply this knowledge when starting and developing teams. Thus, they fail to get the full benefits from organizing in teams.

To help with this situation, we decided to put this simple guide together. It contains a framework and some hands on exercises that you can use to start and support the agile teams in your organization. We created it to support Scrum Masters, Line Managers, Agile coaches and others that want to create great teams.

To avoid falling into the trap of the five out of nine techniques that sounds good but actually do not help at all, we based this guide on principles well grounded in the research.

This is not only a theoretical framework though. We have used it at ProAgile for more than ten years of helping agile teams to get started and keep improving. For us it has helped to create good results in practice. We hope you will find it useful too.

References

[1] Why Teams Don't Work, Diane Coutu, Harvard Business Review May 2009

[2] Creating Effective Teams, Susan A. Wheelan

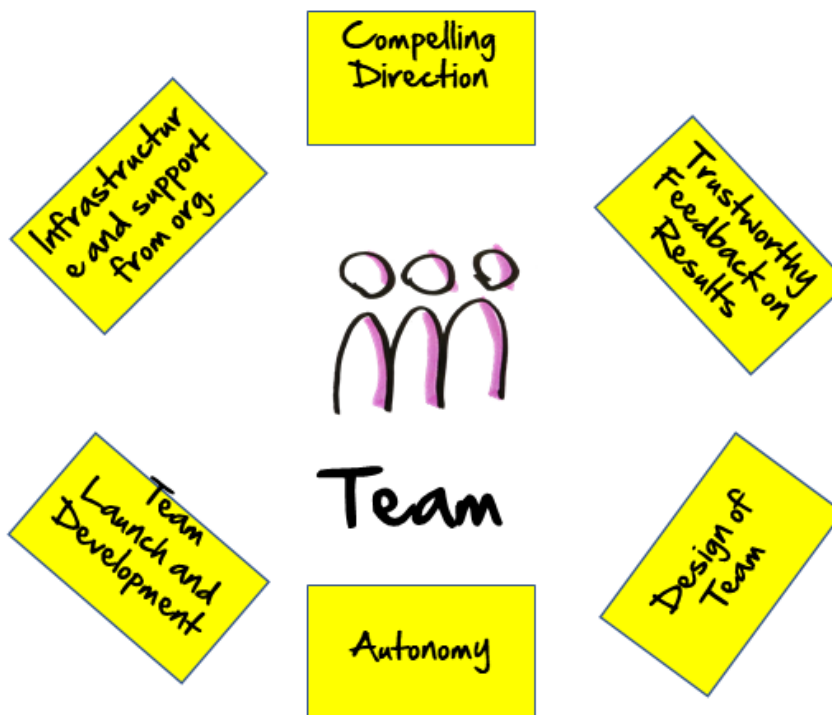
What is a successful team?

Before we go into describing how to create a successful team, let's agree what we mean with "a successful team". Below you can see a proposed definition from Richard Hackman. A successful team:

- actively shape stakeholder expectations and then exceed them
- grow as team, becoming more and more capable of taking on greater challenges together
- grow as individuals, increasing individual skills, both soft and hard

Relative weight of these bullets differs depending on the purpose of the team. For a team that will work together a lot over a long time, all bullets are important. If you are interested in a team like that, this booklet may be for you!

The Framework



Above you can see a visualization of a framework that has been proven useful for us when thinking about how next we best can help a team on their journey.

The six areas shown with the yellow postits above is a slightly different way of viewing the five conditions that well renowned team researcher Richard Hackman uses to discuss team performance in his work[3].

Hackman states that evaluating a teams environment and setup, using these areas, can explain 90% of the variation you see in team performance! This is great news since it also means that by focusing on these areas, improving the working conditions of your teams step by step, you can have a huge impact on the performance of the teams that when care about!

In the next sections we will have a look at these conditions/areas one by one.

The Six Key Areas

Compelling Direction

This is the most important of the various factors you should consider when thinking about what conditions you can help create for your teams. It is one out of five factors identified by Hackman as enabling team performance. Wheelan found that this was one out of three factors that really mattered when examining effective team interventions. In the Google Aristotele research [4], three out of five key conditions found to affect performance was goal related.

Thus, a team need somewhere to go, a direction that they feel compelled to travel together in!

A team may have many different types of goals that serves to set this compelling direction. They can be:

- Product development related
- Organizational development related
- Team related
- Individual related

Creating and processing these goals is one of the very first steps to help any team reach high performance. In the second part of this booklet there are many exercises to help you do this in a good way.

What we are looking for is a direction that

- Requires the whole team to work together. If the team does not need to work together to reach the goals, there is no need for a team. If you give goals to teams that individuals can reach individually, you should not expect teamwork to emerge.
- Is conceived by the team as quite challenging, but possible
- Will fuel the intrinsic motivation in the individual team members

Some techniques that are useful in this context

- Impact mapping
- Value Proposition Canvas

- Business Model Canvas
- Sprint Goals
- Helping the team to be close to and empathize with the people that will benefit from the solution/service they are delivering. In a Scrum context this may be reached by encouraging close collaboration between team and stakeholder and avoiding go-between behaviour from roles such as Product Owners

Related exercises from part 2

- *Individual Goals*
- *Organizational Goals for Teams*
- *Product Goals for Teams*
- *Team Vision*

Timely and Trustworthy Feedback

This is also one of the top 3 important aspect to consider when trying to create the conditions for team performance.

I once worked with a team that seemed to have a pretty good time at work, but when it came to the work itself, I felt that their hearts were not really in it. At the end of sprints they shipped whatever they had without worrying so much if what they shipped was of sufficient quality, if it really worked or if it was of value.

Now this team were a part of a larger cooperation and did not have all the equipment they needed to test if what they had created actually worked or not. At the end of sprints they simple shipped stuff off to another team that would test it. So I asked them, “how long does it take before you get feedback from the test team?”. The answer I got was that “It can take up to 18 months!”

Clearly waiting so long for feedback on what you are doing is not the most inspiring working environment. Basically you get the feeling nobody cares what you do and that it doesn’t matter anyway. What looked like disengaged, somewhat irresponsible, individuals was merely a logical result of setting up an environment that created that behavior!

Some techniques to address this condition

- Create real potentially releasable increments of your product/service as frequent as possible. At least every sprint.
- Slicing stories vertically so that even each releasable increment is created in many smaller steps, each giving technical feedback about working integrations etc.
- Making sure teams have frequent stakeholder, customer and end-user contact. In Scrum this can be during Sprints and at Sprint Reviews.
- Techniques such as impact mapping from the compelling direction section that makes sure the team actually knows what the purpose of the work is. Without that, any measure of progress is less meaningful.

Clear and Significant Autonomy

Here is a pattern I keep running into when I work with aspiring agile organizations:

After some initial agile training, teams assume that they now are self-managing and happily set out to decide various things. Shortly after, their initiatives will be shot down by managers that still have the perception that whatever was decided is still their responsibility, not the teams’. The teams then realizes that all this talk about agile and empowerment was all BS. They understand that nothing has

really changed and swiftly return to their previous level of disengaged compliance. The organization fails to be more agile since agility really depends on the engagement and initiative from each individual.

So, what we need is for teams to know what they can decide and what not. Don Reinertsen stated it well when he said that people should not walk into invisible electric fences.

Note, it needs to be a significant amount of things that teams can decide. People in general enjoy if they can have a say in HOW the work that they do should be performed. Also, the people doing the work probably have some skills and knowledge about the work, so also from that point of view it seems reasonable that they can decide how to do things.

I find defining key decision areas as suggested by Don Reinertsen and using the delegation level approach from Jürgen Appello useful techniques.

Some techniques to address this condition

- Delegation poker and delegation boards.
- Agile Leadership training for involved managers. Especially focus on need for decentralization and how to, step by step, restore the motivation and initiative that was destroyed by the classic hierarchical management model

Design of Team

This is also one of the top aspect to consider when trying to create the conditions for team performance.

Behavioural Styles

Perhaps one of the most popular beliefs about teams is that considering personalities or behavioural styles of team members are useful when designing and developing teams. There seems to be no evidence of this belief. Google in their Aristotle study examined this and found the mix of personalities to have no impact on team performance Richard Hackman debunks this belief also. His work emphasizes that with the right conditions, a team will be able to work through difficulties caused by individual differences. Not to mention that most common tools to work with personality styles actually have little more predictive power than horoscopes. But no need to get into that, since the framework covered here has actual scientific backing and it does not rely on any tools to classify personalities.

What matters then when you design a team? Let's have a look at what the research says in the following sections!

Team Size and Clear Boundaries

Let's say that you have some really interesting but very challenging work coming up. You have created a plan as a team though and you notice that as you are about to get started you feel energized and that you were actually looking forward to it. A week into the project one of your teammates is suddenly missing and you find out he is taking a month off at the Bahamas and it seems that chances of meeting your goals are now close to zero. Most people will have a very hard time to keep contributing at their fullest potential in a situation like that. Why would you give it your best shot when the people that are jointly responsible clearly does not?

Indeed, as I learned from Christopher Avery [5]: The motivation of a complete team is usually set by the least invested/motivated team member. The least inspired person tends to drag everyone else down to the same low level of engagement. Hackman also mentions the related phenomena of "Social Loafing", someone "free riding" along and not contributing their share of the work.

A common cause for this problem is the habit in many organization to assign people part time to several teams or to set things up so that teams are dependent on external experts with no commitment to the team.

The way to prevent this is to set clear boundaries for the team. A team need to know who is on the team and who is not. Who can I count on when going gets tough and who may have other priorities?

Basically to get this working in a software development context, we need teams with full time team members. To make this easier to achieve, you may want to consider keeping teams intact and letting existing teams take on whatever projects/work that comes up rather than starting up a new team for each new project.

To avoid "Social Loafing", also try to make the team as small as possible. If a team are barely enough people to manage to finish their task, the likelihood of anyone "free riding" decreases. Coordination is also much easier than on a large team. If a handful of persons can get the job done, this is a good size to aim for.

Interdependence

Surprising to some, the ideal in an agile team may not be that everyone is able to perform every task. From a team-work perspective it is actually better if people have different skills. Then they will actually have to work together to accomplish the team goals.

This also aligns nicely with the idea of "T-shaped" people. We want people that have deep expertise in some area. This is what enables us to create products with great performance. Only relying on experts tend to take too long though. There will be lots of waiting times as they pass work between each other and the opportunity may be gone as we finally manage to get the product out the door. If instead

people are experts, but also are willing to help out with things that they do not master so well every now and then, we can achieve speed in development also.

The way to get this working is to assign sufficiently big things to teams so that a multitude of skills is needed to perform the work. Ideally teams should not just “implement requirements”. They should have the greater task of creatively striving to solve some customer problems, or to optimize value to customers in some area. Stability over time Team development models usually includes some kind of phases, such as “Forming, Storming, Norming and Performing” by Bruce Tuckman, or the phases 1-4 as defined by Susan Wheelan. They indicate that it takes a bit of time to get a new team going. In the beginning the team will be struggling with everyone finding their roles and ways working together. As you sort that out the team will eventually be able to deliver more value than what the team members were able to do if they had been working as individuals. This can easily take 6 months or even a year.

So, you may want to consider keeping teams together for longer times. To make this possible, think about assigning projects/work to existing teams rather than forming a new team for each new endeavor.

Some techniques to address this condition

- Team self selection
- Move from project teams to stable teams with full time team members
- Assigning larger, value/effect based, goals to teams, see compelling directions chapter

Activities for Teambuilding

Perhaps the most common activities for team building are going bowling and then continuing with dinner & drinks. Or perhaps solving a puzzle such as an “Escape room”, trying to instill teamwork by doing something completely different than regular work. This can be fun and all, but these activities probably fall into the category of 5/9 activities that produce no measurable improvement in teamwork according to Susan Wheelan. So feel free to keep offering fun stuff like this to employees, but do not count of this as the foundation for team building.

What works then?

Well, some of the activities from previous sections, such as processing and agreeing on direction/goals on product-, organization, team and individual levels are major team building activities. The team can not self manage if they do not feel the direction is motivating. Also, team members will only contribute to their full potential when they feel the direction is compelling.

An agile team also needs to learn some new skills in order to be self managing/self organizing. Especially they need to learn how to

- quickly make good enough decisions as a team
- solve problems as a team
- navigate conflict as a team

Having some of these skills is of help since teams also need to decide

- Ground rules for working together
- Specific ways of working that all team members at least agree to. (Consent decision making is enough here, not consensus)

In the Google Aristotele team research they found “Emotional Safety” (aka trust) to be the best predictor of team performance. Emotional safety basically means that you can show up as your full self at work. You can be yourself and do not have to put on a mask or protective armour because you know that nobody will try to hurt you. This is probably factors that most team building activities tries to address with various social off-work social activities. Maybe that even helps a little, but by using job focused specific activities, some listed below, this can be taken to a completely different level.

Related exercises from part 2

- [*Individual Goals*](#)
- [*Organizational Goals for Teams*](#)
- [*Product Goals for Teams*](#)
- [*Team Vision*](#)
- [*Ground Rules & Decision Making*](#)
- [*Journey Lines*](#)
- [*Appreciation Cards*](#)
- [*Balancing Team- and Individual work*](#)
- [*Market of skills*](#)
- [*Repairing Broken Agreements*](#)
- [*Build trust with simple questions*](#)

Infrastructure and support

Here are some ideas on question you can ask to check the level of infrastructure and support you currently have for your teams:

- Do they have easy access to all information they could use to maximize the value of their work?
- Do they have the tooling they need and is tool-performance top class?
- Do they have the personnel and physical space needed?
- When there is tooling or infrastructure problems, how quickly can the team get help?
- When the team discover a need for learning, can they quickly get the resources needed to do so?
- Do the reward system of the company encourage team work or individual hero behaviour?
- Do the organizational design foster collaboration between groups and departments?
- When the organizational design creates conflict between organizational parts, do managers have the sophisticated political and interpersonal skills, persistence, inventiveness and sense of timing to help resolve this?

References

- [1] Why Teams Don't Work, Diane Coutu, Harvard Business Review May 2009
- [2] Creating Effective Teams, Susan A. Wheelan
- [3] Leading Teams, J. Richard Hackman, Harvard Business Review Press; 1 edition (July 15, 2002)
- [4] The five keys to a successful Google team, Julia Rozovsky
- [5] Teamwork is an individual skill, Christopher Avery

Team-Start Example

Purpose

- Supporting a team in their team formation/team development process.
- Lay the foundation needed for a Scrum Master to be able to coach the team as a team.

Time required

Start with at least one day 9-16

There is more material than that, make plans on how to cover the rest either as a day 2 or as several more smaller sessions

Preparations

- Check that the team set up is good enough to make it meaningful to start working with team development. E.g.
 - The team needs to have a compelling goal,
 - suitable skills to be able to reach the goal.
 - It should not be too big etc.
- Create buy in from the team and each team member for the workshop if needed. We want a team that is motivated to participate
- Book some prep-sessions with some line manager and a product manager/PO. They need to present the goals from organization/product point of view. Expect at least 1+2 hours prep with some days in between to create attractive visions
- Book a room, preferably offsite. Best layout is if all tables can be removed and just use a circle of chairs. Some space to hang material is needed on walls.
- Send out invite to team, PO, line manager with purpose & overview agenda at least 1 week before
- Get materials
 - Flip chart paper
 - Whiteboard markers to draw “Journeylines”

- Postits
- Markers for posits
- Print handouts for “repairing broken agreements” and “Individual goals”
- Prepare a visual agenda with postits on a flipchart paper. Create it like a kanban board, with “ideas”, “doing” and “done” columns that you can use to keep track of the flow of discussions and exercises during the day.

Agenda

Connect

The purpose of the “connect” session is

- Get everyone started talking, interacting rather than passively listening
- Get everyone thinking about what they already know and think about the subject of the session.

We want this to start right away in the morning to avoid people settling into “listening mode”. Thus: Keep your welcomes etc very short (< 1 minute!) and get started with some connect activities almost immediately. Pairwise activities are best since then everyone needs to participate

Example:

Hi, welcome to this day with our team! We have prepared a lot of interesting exercises and I hope you all will find this both useful and fun for our team! Before we get into the agenda etc in a few minute, I would like us all to get started with some warm-up activities.

- Could you all pair up with someone and discuss for a minute: *
- *Is there a difference between a team and any group of people What is it?*

Let them talk for 5 minutes for so until they get going, then interrupt them and collect some ideas from the pairs. Then give them another warm-up question

- *Before we start on trying to build a really great team, we should agree on what that is. How would anyone be able to see that we successfully have created a really great team?*

Let them talk for 5 minutes and then collect some answers. It will be a mix on actions to take how to achieve greatness and how to actually see that greatness have been achieved.

Never mind! Show the the definition from Richard Hackman and ask them to compare with their own discussions:

- Exceed stakeholder expectations
- Grow and be more capable as a team over time

- Each individual should learn, grow and find the work worthwhile and satisfying

Ok, what we will work on today is designed to help us achieve this. Let's look at the agenda:

Agenda

- Cover the purpose of the day and agenda quickly, just main topics
- Cover times, breaks, practicalities. Try to split the session up in 25+5 min sessions of 50+10 depending on team/group size. For a normal size team 25 min work+5 min break is good (This is called the "*pomodoro technique*"). If several teams are starting at the same workshop it may be challenging getting everyone in and out of the room every half hour so in those cases perhaps 50+10 is better.

Ground Rules & Decision making

Time required, 5-15 min See [separate facilitation guide](#)

Psychological Safety

- In the Aristotele research project at Google they identified basic psychological safety as a key enabler for team performance.
- You can see the same conclusions in the works of others, e.g. Trust is the first step in the "5 dysfunctions of a team" model by Patrick Lencioni.
- In the works of Susan Wheelan the first phases of team development has a lot to do with being accepted by the team.

The [Journey Lines](#) exercise is a really good way to address this and other goals for new and old teams. Time required is about 2h, depending on team size.

For a team that has been working together, [Appreciation Cards](#) is another really nice way to start a session focused on team development. Time required is < 30 min.

Use both exercises, but perhaps not in the same session!

Product Goals

Time required, typically: 30 min - 2h

See [separate facilitation guide](#)

Organizational goals

Time required, typically: 30 min - 1h

See [separate facilitation guide](#)

Team-vision

Time required, typically 1h

See [separate facilitation guide](#)

Working agreements

Facilitate making a few team agreements on how to work together. Start with some individual reflections and then use “fist of five” to quickly refine some proposals and make consent decision. Document on a flipchart.

One working agreement that you probably want to explore with your team is how and when to work as individuals and how and when to work as a team. Check out the guide on “[Balancing Team- and Individual work](#)” for a good way to do that.

Individual goals

Time required, typically 1,5h

See [separate facilitation guide](#)

A similar but slightly simpler exercise is “Market of Skills” Time required: 30-60 min See [separate facilitation guide](#):

Team skills

- Team formation theory

A team move through different phases. See for example the forming, storming, norming, performing theory by Bruce Tuckman or the more recent work by Susan Wheelan. Quickly show the team this and help them realize that this will happen. Especially that the first honeymoon period will be followed by a period of conflict and that this is a good thing that will enable the team to grow if navigated properly.

- Repair broken agreement

Time required, typically 30 min

See [separate facilitation guide](#)

- Making decisions

In this guide your team can practise consent decision making using “fist of five” in the beginning of the day and during working agreements section.

You may want to mention that for “way of working” decisions, consent decision making is often required - i.e. all team members have to agree to follow the agreement. If not you will get low buy in. In other situations other decision making methods are better suited. E.g. majority vote, individuals decide, at least two members agree etc. The team should strive to define **how** decisions are made before they try to decide something.

- Problem solving

Teams need to learn systematic problem solving to enable good decision making. This is needed both to solve technical problems in a better way than basing it on opinions. It is also needed to solve many way of working problems in larger organizations. The A3 method and/or cause effect diagrams is one good technique that often is valuable for both these problems. This is best practised on some real problems in a separate session. Set aside 2 hours for that and invite a set of stakeholders that can contribute a diverse set of views on some difficult problem.