



Timeboxing

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Overview

Timeboxing is a somewhat overlooked technique in project management. It has been around for decades and seems to go through periods of being fashionable, then unfashionable. This white paper on timeboxing explains what it is, when to use timeboxing, and how to run a timebox.

The Context for Timeboxing

Going back to basics, a project has the triple constraints of time, scope and cost. If one parameter changes, something else must change to keep the three as a constant. There are other parameters of course:

- Quality. Ideally this should not change however in reality it does. Unfortunately it might change in a way that is not evident until well after the project is complete. For example, documentation may not be completed, or sub standard materials may be used that deteriorate in a shorter time.
- Resources. Both the quality and quantity of resources can vary. Often however, resources are linked to cost. More or better quality resources tend to cost more. Less or poorer quality resources cost less. Poor quality resources may impact time. To do the same work, may take longer.

Timeboxing Definition

Timeboxing is to make time a fixed component and adjust the other two constraints (scope and cost) to fit. That can lead to a number of interpretations.

- We will complete as much as we can in the period available.
- We will apply as many resources as we need to complete the work in the period available
- Or something in between.

Typically Timeboxing is used to complete a defined amount of work in a fixed period.

Conditions for Timeboxing

Resources

In order for timeboxing to take place, it is important that resources (both human and other) are available. Without the necessary resources the exercise becomes meaningless. The people must be assigned and not subject to other demands that will compromise their involvement.

If there are “other” resources – aside from human resources – those resources must also be agreed and available. That might include suppliers, equipment and facilities.

Scope

Since we are to complete a predefined piece of work, that work must be clearly understood. If the work is not understood, timeboxing will be meaningless. Say you

had to carry out a feasibility study for a project. You have some idea of what needs to be examined, but the time and effort required to explore “unknowns” is vague. You might find that after talking to a key stakeholder, a whole new area of investigation emerges. That may take another week, or month. In other words, the scope can not be defined with any certainty at the start of the phase. We don’t know what we need to do because we don’t know what we don’t know. This is not a suitable phase for timeboxing.

Similarly a planning phase is not suitable. Planning in itself means you don’t understand fully what is involved. You might have to carry out a risk assessment and implement mitigation activities. Until the assessment is carried out, you don’t know the mitigation effort. That is unless it is a type of project with a high degree of repetitive experience to estimate on.

What is suitable could be to gather requirements to a particular level for a straightforward development, or seek responses to an RFP, or to build a particular component in a construction project.

Commitment

There needs to be commitment from the team to meet the deadline. If the team is doubtful they can meet the timeline, it will likely become a self fulfilling prophesy. The team must believe the deadline is realistic, or there will be an almost “I told you so” attitude if they fail.

On the other side of the equation, the Sponsor and/or Steering Committee must be prepared to provide whatever support is required, and do it quickly. If the team have a problem that might impact the timebox, it needs to be addressed immediately. This means the support mechanism must be available on short notice to address significant issues. If the team has an issue that needs external approval (e.g. funding for an additional resource) but has to wait days for approval, they can hardly be held accountable for not completing a timebox on time.

Tracking the Timebox

Another part of timeboxing is to have lots of clearly defined milestones. It is checkpoints along the way that tell the team if they are on track. If a train is travelling 10 stations, and if it goes through station 1 on time, the ETA is still valid. If it is late at station 1, the ETA is under threat unless something else can be done to speed up the train.

A typical timebox might look like this.

Start Timebox	1 May
Milestone 1	6 May
Milestone 2	13 May
Milestone 3	19 May
Complete Timebox	27 May

Milestones are around a week apart, so each week there is another checkpoint. If you are behind at Milestone 2 (finish on 15 May instead of 13 May), you need to take action to recover two days in the final 2 weeks.

Milestones should be at least every week to track the progress. Further apart and you start to lose sight of the timeline. Too close together and you are constantly micro managing the hourly work.

A timebox itself should be somewhere between a few weeks and two months. If it is longer, break it down into a couple of timeboxes. Maintaining the focus over two months will usually result in early complacency. “We are a week behind after two weeks but we can make it up somewhere”. Hope replaces reality.

Effort in a Timebox

What you are aiming for is a period of high level activity. An intense round of work that will deliver a solid result. Such a level is not sustainable in the longer term. It will result in burnout for the team. I have seen organisations try to run end to end timeboxes and wonder that after six months or so, team members are stressed out, and productivity drops.

You need to have a break after each timebox to regroup and recuperate. A good rule of thumb is that for every four weeks of a timebox, you should have at least a week of no timebox. That is not to say the world comes to a stop. Use the week to plan the next step, or carry out some non-timeboxed activity.

Cancel a Timebox

So what do you do when the timebox is not achievable? Should you extend the deadline? The answer is a non negotiable “NO”. You cancel the timebox.

The psychology behind cancelling is that it says in plain terms, the team has failed to deliver. They committed to a timeframe, were given all the resources they needed, but failed to deliver. There may be circumstances outside their control, or inside their control that caused the failure. Regardless, the commitment they made could not be met.

The team should then plan a new timebox which needs to be agreed by the Sponsor and Project Steering Committee. This timebox is to complete the work remaining. Going back to the psychology of the cancellation, the team will be super determined not to fail again. They will be fanatical about not having to miss the deadline a second time. Nobody wants two failures on their record. You will find the team even more motivated to reach their goal than they were before.

I have been asked the question

“But what you are really doing is giving people the opportunity to extend their timebox. Why is cancelling one timebox, and creating a new timebox so important?”

It almost has to be seen to be understood. In every case where I have been involved with teams who have had to cancel a timebox, the motivation to succeed the second time has been extraordinary.

At the organisational level, when introducing timeboxing, there are usually a number of cancelled timeboxes. It is after the first six or twelve months that the cancellations diminish to maybe one in ten or twenty. People learn from the failures. Their

planning becomes more thorough. They get help from people outside the team to verify their planning. The organisation is more willing to bring in additional support if deadlines start to slip. It brings about a change in corporate culture.

Preparing for Timeboxing

A team must prepare for a timebox as they would for any phase of a project. That includes:

- Defining what exactly they are going to deliver
- How do we check the quality of the deliverables?
- What resources do we need or have available?
- What is our schedule and key milestones?
- What are the risks and what are we going to do about those risks?
- Define roles and responsibilities
- Gain agreement to all of the above from the Sponsor and Project Steering Committee

Once approval is given, the timebox is ready to start.

Recognition

It is vital that once a team has achieved their goal, it is recognised. That might be in the form of a personal acknowledgement from the Sponsor or a senior executive, or taking the team out for a celebration. If the team is not recognised, there is not the incentive there should be to do it all over again. Why bother. Nobody really cares.

Make sure that each team member is personally thanked for their effort, and that their sacrifices are acknowledged. We are striving to get people to do more than just fulfil their job description. We are asking them to excel.

Summary

Timeboxing is a great technique within the right environment. Properly used it can cause teams to achieve amazing things. It can result in unimaginable levels of productivity. Don't expect it to work every day on every project. Pick your phases, and make sure the goals are achievable. Recognise the efforts of those involved, and you will start to change the corporate culture around project management.

The Author

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About Project Perfect

Project Perfect is a project management software consulting and training organisation based in Sydney Australia. Their focus is to provide organisations with the project infrastructure they need to improve their project management capability.

Project Perfect sell “Project Administrator” software, which is a tool to assist organisations better manage project risks, issues, budgets, scope, documentation planning and scheduling.

They also created a technique for gathering requirements called “Method H”™, and sell software to support the technique. Recently they released SP² which is a web based software package selection methodology. For more information on Project tools or Project Management visit www.projectperfect.com.au