Project management for researchers and evaluators

Monitoring and controlling projects

While implementing research projects, we should monitor our status and thoughtfully manage changes to our approach

Once a project is fully planned, you are ready to implement it. No matter how well the project is planned in advance, there is no guarantee that things will go according to plan. In fact, while project planning goes a long way in laying a strong foundation for the project, expect that you will need to revise your approach along the way. During the entire implementation phase, you need to carefully monitor how the project is unfolding. The goal is to make sure that things are moving forward according to plan, identify potential problems, and take corrective action as needed.

The Project Management Institute's (PMI) Project Management Body of Knowledge (2008) outlines three major tasks that need to occur during the "monitoring and controlling" phase of a project:

- Track the project progress and performance
- Identify any areas in which changes to the plan are required
- Initiate the corresponding changes

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This tip sheet highlights some key recommendations for monitoring and controlling your project.

Establish and measure key performance indicators

Projects are complex and involve many different elements. How do you decide whether things are on track? Well, we're researchers and evaluators, right? We like using data to drive our decision-making, and that philosophy aligns with effective project management. Project management frameworks typically recommend that we develop some "key performance indicators (KPIs)" to organize our monitoring and controlling processes. KPIs are measurable objectives against which we can judge our success in implementing the project.

PROJECT MANAGEMENT PHASES

KPIs should ideally be determined in advance, and should reflect the consensus of core stakeholders, such as the project team, collaborators, client, or others. You want the number of KPIs to be manageable – maybe 3-5 – so that you stay focused on the most important measures of project success.

KPIs could focus on the three core project elements – scope, cost, and timeline. It can be helpful to know which of these are most important in assessing project success. For example, is it most important that you complete the project by a specific date, even if that means potentially reducing the scope of the activities to get the work finished on time? Or perhaps it is most important to complete the full scope of the intended project activities, even if that means needing to increase the budget.

There may be other things that are important to elevate as well, such as factors related to the team performance, the quality of deliverables, or other factors.

Sample project KPIs

- *Percentage of project tasks or milestones completed on time*
- *Percentage of the project tasks completed to date*
- *Comparison of the actual and projected amount of time spent on project tasks*
- *Comparison of actual and projected budget*
- *Client/collaborator satisfaction with project*
- *Number of documented scope changes*
- *Research team satisfaction with project*
- *Final report dissemination/number of downloads*

Be sure that you will have the data available to measure these KPIs. For example, if client/collaborator satisfaction is a KPI, you will need a strategy for collecting feedback from them. If you want to document the percentage of project tasks or milestones completed on time, you will need a clear breakdown of anticipated tasks or milestones and a system for documenting progress in completing them.

Develop a specific plan for how the project will be monitored and evaluated, including what data will be collected, how it will be reviewed, by whom, and how often. If you have a full project team, make sure all members understand their roles related to project monitoring. For example, if different team members will lead project tasks (such as community engagement, data collection, analysis, or reporting), provide clear instructions regarding the ways that

progress on these tasks should be monitored and shared with the team.

TIP: Make your KPIs as specific as possible

Consider using the SMART framework, making each KPI *specific, measurable, attainable, relevant,* and *time-bound.*

TIP: Use time tracking software

It can be very useful to have detailed information about how project time was spent. Time usage data can not only help you understand the project status, but can also help you develop more accurate estimates for future projects. There are numerous online time tracking systems available. To make it easy to assess the full project, the entire team should use the same system.

There are a variety of project management tools that can be applied to support the monitoring tasks. However, what is most important is that you have a plan for reviewing the data related to your KPIs on a regular basis and reflect on how the project is moving forward.

Hold regular project team meetings

The full team should have clear information about project status throughout the execution phase. Having the team use a shared project management platform (and there are many available online) can be a good start in providing consistent documentation.

Regardless of whether software is being used, it is important to also hold regular team meetings. The team needs to have opportunities to discuss project execution in more depth, understanding the "why" and "how" behind the project status numbers.

The whole team should review the project KPIs on a regular basis. Build a team review and discussion of KPIs into ongoing project status meetings to ensure that everyone knows where things stand and can provide input into strategies for keeping the project on track.

Project status discussions should go beyond simply reviewing the KPIs, however. When planned and

carried out effectively, project team meetings provide an important opportunity for all members to share their successes and challenges, learn from each other, and identify and resolve project issues.

Sample team check-in questions

- *What is the current status of project tasks? What has recently been completed and what is coming up next?*

- *Are tasks being carried out as planned? If not, why not?*

- *Are we running behind or ahead of schedule? If we are behind schedule, are there steps that we can take to get back on track?*

- *Are we running over or under budget? If we are over budget, are there opportunities for us to reduce costs elsewhere?*

- *Is anything unexpected or surprising happening related to project implementation?*

- *Have there been any changes in our project scope? Have we added any work that falls outside our intended work plan?*

- *Is the quality of our work at an acceptable or desirable level? Is there anything that is reducing our quality?*

- *How is the project team performing? Are there any conflicts or concerns that need to be resolved?*

- *Are any potential project risks emerging? If so, what needs to happen to manage these risks?*

- *What feedback are we hearing from the client or collaborators? Do we need to modify our approach to address any expressed concerns?*

- *Is there anything about the project that needs to be changed? What would be the impact of these changes?*

- *What support or resources do team members need to manage upcoming tasks effectively?*

Try to keep the tone of status meetings positive and productive. Rather than just complaining about challenges or stresses that may be emerging, learn together as a team about how issues impact the project and reflect about strategies to address these issues. Document this information, and keep historical documentation available and accessible to help guide planning on future projects.

Adapt your plan as you go, but manage and document the changes

If you discover an issue that is impacting your project, it can be natural to want to jump right into fixing the issue. However, it's important to pause and think through the changes that you could make and the impact of these changes. Remember that every project is shaped by the triple constraint – project scope, timeline, and cost are intrinsically connected and changing one will typically change the other two. As we consider strategies for addressing a challenge, we need to figure out how this change might impact each aspect of the triple constraint. It is also important to consider the impact of changes on overall project quality.

For instance, if your data collection costs are running higher than expected, you might be tempted to reduce the number of interviews that you are conducting. While this might address your budget concerns, this solution could introduce new challenges related to overall quality of your data, the inclusion of diverse/key perspectives in your data, or the generalizability of your results.

You should change the project plan only if you determine that the change will not negatively impact quality, time, cost, or scope…or if the benefits of making the change outweigh negative impacts. While changes may be necessary and reasonable, watch out for "scope creep", which can occur when we add project tasks or activities that fall outside of the original project intent and which can impact our costs and timeline.
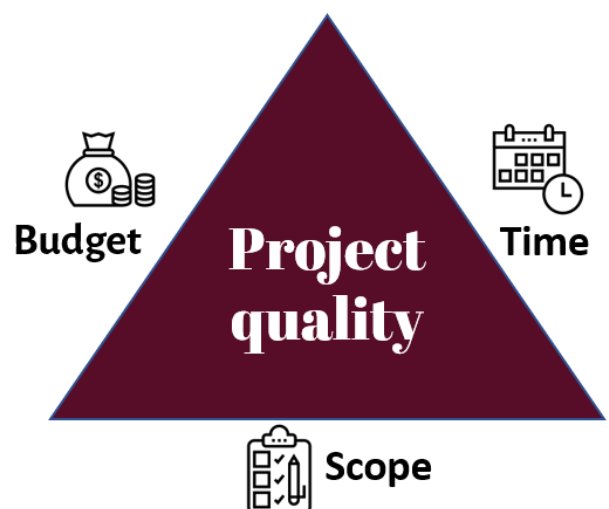
PROJECT MANAGEMENT: TRIPLE CONSTRAINT

> **"It's a bad plan that admits of no modification."**
>
> - **Publilius Syrus**

If you decide to change a core aspect of the project, it is important use "change control" processes to make sure that the change is organized, documented, and understood by the project stakeholders. Even if your team's workstyle tends to be fairly flexible and informal, it can be helpful to use a more formal approach for managing project changes.

It is typical in project management methodologies to see formal processes for managing "change requests." A change request process involves proposing a project change, documenting the reasons for the change, assessing the potential impact of the change, and obtaining input and approval of core stakeholders (such as the project team or client).

Having a formal process for approving and documenting changes ensures that everyone has a shared understanding of both the proposed change and the likely impact of the change. Having this documentation can be invaluable in preventing misunderstandings among the stakeholders regarding project scope, cost, and timeline.

Tips for managing project changes

Keep project documents updated

When changes are made to the project, make sure these changes are reflected in project documents, such as the budget, work plan, or timeline.

Be mindful of how changes impact team roles

Do not assume that team members have a shared understanding of how overall project changes impact their specific roles. Provide clear information about the impact of project changes, and ensure that all team members are aware of and accept changes in their roles or responsibilities.

Document all changes in writing

We may agree to project changes in the course of one-on-one conversations or team meetings. At that time, it may feel as though the change is straightforward and that the stakeholders have consensus about the change. However, perceptions of what has been discussed may vary, and memories may fade over time. It is a good idea to document and share changes in writing. For instance, it can be helpful to follow-up from a verbal conversation with a client in an email, to recap the conversation and summarize modifications that were made.

Amend contracts as needed

Minor changes in project implementation typically do not require contract changes. However, changes that will significantly impact project scope, timeline, or budget often require amendments or revisions to contracts (such as contracts that you may have with a project client or contractual relationships among team members). While doing contract changes can be stressful or time consuming, having updated documentation protects you as a researcher or evaluator (such as preventing the client from withholding payment if the original contract terms are not met, even if they verbally agreed to the changes).

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