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Introduction

Conducting a multinational, multiregional, or multicultural survey, which we refer to as a '3MC' surve
involves careful coordination of many elements defined in the survey production lifecycle. Reflecting on the historic
development of comparative studies, it is “…a quantum leap in complexity when one moves from the national to the
national arena in survey design and implementation”. Research teams face many challenges in their attempts to man
the requirements, elements, stakeholders, and constraints of 3MC studies. The following guidelines provide a sugge
framework for study management activities, incorporating aspects of the Project Management Body of Knowledge,
called the PMI PMBOK®. After reviewing the study management guidelines below, we suggest reading the guideli
each of the elements of the survey lifecycle relevant to your study (see the Chapters page for an overview and diagr:
survey lifecycle).

This introduction begins by discussing why study management is important in the context of 3MC surveys. The nex
provides generic project management concepts including definitions for key roles (project manager, team members,
stakeholders), followed by a description of core project management topics including scope, schedule, cost, and
quality. Guidelines and procedural steps are then presented for the main phases of projects including the initiation, p
execution, and closing phases. Throughout the chapter, there are tools and examples that may be helpful for 3MC stu
management. The appendices provide templates for some of these tools. Appendix I presents a table with links to us
project management examples and resources from the and the Teaching & Learning International Survey (TALIS).

Study management is critical to successful completion of survey projects. It embodies techniques that can be used to
attain project goals and to manage activities effectively. Additionally, study management is essential for achieving tl
comparability and quality standards demanded by 3MC studies. “In comparative survey research, much more than t
problems common to all mono-cultural surveys and measures need to be taken into consideration. In addition to dep
on the quality of each individual national or cultural survey and measurement component, cross-cultural research is
dependent on their comparability”. In the past, it was often assumed that countries were able to follow instructions
specifications “without much guidance or explanation,” but many collaborators in study countries have found it cha
to institute the required protocols because of a lack of experience and infrastructure or may have taken short-cuts in
assurance and quality control procedures. Over the past few decades, comparative researchers have attended more
rigorously to the planning, execution, and evaluation processes that comprise study management. As a result, greate
“methodological equivalence” such as that which defines current rounds of the are being achieved.

The central coordination and local data collection efforts of many 3MC surveys are implemented within the struct
existing programs that carry out ongoing operational activities. The organizations’ ongoing program activities may th
through long timeframes, and can include many types of endeavors in addition to a specific survey project. The ESS
European Research Infrastructure (ESS ERIC), for example, has implemented many surveys as well as conferences
2001 within a program structure including a headquarters, a general assembly, a core scientific team, a national
coordinators’ forum, and other bodies.
But a specific survey needs to be managed as a distinct **project**, separate from the program(s) it may be associated with. A project (as opposed to a program) has some characteristic features. It is built around a specific and unique goal or set of goals. The project has a beginning and an end. There are limited resources, often revealed through the budget, for implementing the project. The goal or goals are closely tied to the research questions and the methods used to help answer these questions (see Study Design and Organizational Structure, Guideline 1). The project ends after the goals have been met and all assigned resources have been utilized.

Round 8 of the ESS, for example, is a distinct survey project. There are specific goals, which include standard ESS objectives plus new items representing changes from Round 7. The Round 8 survey has a beginning and an end (target May 2015–October 2017). The resources and budget for implementing Round 8 are predetermined. The research questions and methods are outlined in the Round 8 Survey Specification. The project ends after the team members finalize and disseminate all Round 8 deliverables.

Note that not all projects are executed as part of the ongoing operations of an organization. Some projects are implemented within new and independent organizational structures that are formed specifically for the project and that dissolve at the conclusion of the project.

The organizational structure chart below shows how a hypothetical organization might utilize employees from several program areas to implement a project. In this case, the organization has a top-level director (sometimes called a 'division head,' or another title). This organization has two program areas, including a research department and an operations department (where there are five specific units). The project structure includes individuals from all the program areas. The individuals are assigned to three sub-projects, which are coordinated by three managers. Note that the set of individuals assigned to work on sub-project 'C' are also separately assigned to work on sub-project 'A.'

*Example of how an organization might utilize employees from several functional areas to implement a project* (image) Some survey projects may be unidimensional, where a single project manager and project team handle all tasks and activities to meet the goals of the project. For example, a country’s education ministry might delegate responsibility to a project manager for implementing a survey of paper-based and self-administered questionnaires to regional educational superintendents. A small project team might work with the project manager to handle all aspects including sampling, questionnaire development, pretesting, data collection, data processing, and final reporting. All the project phases and processes discussed in this chapter would apply to the tasks carried out by such a unidimensional team.

On the other hand, 3MC surveys typically include multiple dimensions where a central project management team coordinates the efforts of several country-based or regional-based project teams that each individually implements local components of the survey. For example, a university-based coordinating team might plan and oversee a project that contracts with four local data collection teams in separate countries. The central coordinating team (see Study Design and Organizational Structure, Guideline 2) and the local country teams would focus on different elements of the survey production lifecycle. But all the project phases and processes discussed in this chapter would apply to the tasks carried out by both the central coordinating and the local country teams.

*At a central level, a central coordinating project manager(s) and project team may specify and develop survey elements then contract with local data collection teams that manage the execution of local efforts.* (image)

The relationships between many organizations and entities involved in a given 3MC project become increasingly complex as more countries and cultures join the effort. Distinct study management efforts (for example, discrete management may be warranted at several levels. The coordinating center, each local country team, and each field data collection company may enact the principles that will be discussed in following sections. High levels of communication and collaboration are required so that multiple study management efforts on a given survey remain synchronized.

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**Project Management Core Areas**  
The **project manager** role. The overall director (who might be known as the organization’s director, the scientific lead, the principal investigator, or another title) typically delegates study management authority to a lead project manager. The project manager (who might also be the project director) is the person responsible for accomplishing the project or sub-project objectives. This means completing the project or sub-project on time and budget while meeting project specifications and quality. Project managers plan and direct a sequence of activities which involves: identifying requirements, addressing needs, concerns and expectations of stakeholders, maintaining strong communication channels, balancing competing constraints, and completing core processes and phases of the project. An effective project manager has well-developed technical skills specific to project management, a strong understanding of the content area for the project, and excellent leadership skills.

The **project team**. The project team is comprised of the people who have assigned roles and responsibilities for conducting aspects of the project. Project team members have budgeted effort and cost that will be monitored. The lead project manager may delegate oversight of components of the study to project leads. In the diagram below, twelve project leads have responsibilities for overseeing work and people associated with each of the elements in the survey lifecycle. For larger or more complex projects (as in the diagram), there may be a separate project lead for each element. For smaller projects, given project lead and project team member may have oversight responsibilities associated with a set of many of the elements.

*Project leads may have responsibilities for overseeing work and people associated with the elements in the survey lifecycle.*

The **stakeholders**. The PMI PMBOK defines stakeholders as follows: “A stakeholder is an individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project.” Examples of possible stakeholders in 3MC project include the funding sponsor, government representatives in participating countries, a technical advisory board, survey respondents, users of final reports and data systems, and others. Project managers and teams need to influence but do not directly manage stakeholders.

*Stakeholder influences diminish and costs for making change increases.*

It is most useful to obtain stakeholders’ input during the early stages of the project (or lifecycle element), when stakeholders can successfully influence design decisions. If stakeholders try to influence the project at later stages, there will likely be costly revisions and the impact of the stakeholders’ input may be less successful.

Project management encompasses the application of knowledge, skills, tools, and techniques to accomplish the project goals. Some of the broad elements of project management are:

- Defining goals, specifying requirements, and establishing clear/achievable objectives;
- Collecting input from team members and stakeholders, and then weighing benefits and costs of different approaches;
- Balancing competing project constraints of scope, time, and cost;
- Managing team member and contractor activities; and
- Producing and delivering the projects’ services and final products.

There are three dominant constraints (often called ‘triple constraints’) that interact on all projects: scope, time, and cost. Quality influences the triple constraints and itself can be influenced by attempts to balance scope, time and costs.
The **scope constraint**. Scope pertains to the work necessary to deliver a product. Scope is about project scope and project scope. Project scope includes the work and activities necessary to complete all the deliverables and requirements. Project scope involves the requirements (e.g., statistical soundness, technical feasibility, ethical integrity, usefulness) that in when project deliverables are acceptable.

Scope considers a project’s boundaries: what work will be completed during the project lifecycle, and also what work will not be included. Project teams watch out for scope creep, which is a phrase used to describe uncontrolled changes or in the scope that must be constrained or may be harmful to costs, schedule, and quality.

The **time constraint**. To assure project success, all aspects of the project need to be completed in a timely manner. Project teams typically use schedules to track and adjust time constraints throughout the project lifecycle. The process includes several steps which, depending on the nature of the project, might be completed all at once by a single person or in stages by multiple people. These steps are: creating a detailed list of the activities; putting the activities into a sequence (earliest to latest); estimating the duration of each activity (the work effort and days); and putting them into one or multiple schedules. The following example includes columns for common items on schedule templates. This example also includes a graphical display of scheduling information. When the graphical display is present, this schedule format is called a Gantt chart (also see Tenders, Bids and Contracts, Appendix A).

**An example of a Gantt chart.**

![Gantt chart image](image)

Throughout the life of the project, the project team continuously reviews the schedule(s) and periodically makes adjustments when actual progress occurs differently than originally estimated on the schedule. Some teams use a tool called the 'Path' to consider the best ways to adjust a schedule. In a critical path diagram, the tasks are listed in sequence and account for their dependencies. The longest path identifies the timelines for the set of tasks that would need to be adjusted if the overall schedule needs to decrease. The time period for the critical path might be shortened if additional people and work efforts are added to a task (called 'crashing') or if some tasks in the sequence have slack and/or they can be rescheduled in parallel with earlier tasks (called 'fast-tracking'). The diagram, below, explains how to find the critical path.

*Since the critical path is the longest path through the network diagram, Path 2, B-E-H-J, is the critical path for this project.*

![Critical Path Diagram](image)

Assume the durations are shown in months:

- **Path 1**: A-D-H-J Length = 1+4+6+3 = 14 months
- **Path 2**: B-E-H-J Length = 2+5+6+3 = 16 months
- **Path 3**: B-F-J Length = 2+4+3 = 9 months
- **Path 4**: C-G-I-J Length = 3+6+2+3 = 14 months

The **cost constraint**. Staying within the budget is one of the most important expectations faced during study management. Usually, 3MC projects start with a rough initial budget that was part of the tender or bid packet that led to the project. The project manager and/or team will then build a more detailed budget by estimating costs to complete work specifically the activity lists and deliverables schedule. The budget includes labor items (salaries and relevant employee benefits) and non-salary items (travel, equipment, materials, contractor costs, etc.).

One tool that can help with labor cost estimation is called work breakdown structure (WBS). A WBS divides the work activities into small pieces that can be assigned to workers and tracked to assure the project stays on track. A WBS consists of levels—the summary tasks and the work packets. Summary tasks pertain to elements of the project such as ‘create the...’
questionnaires' and 'train the interviewers.' There may also be a second level of summary tasks. For example, 'produce versions of questionnaires' may have a second level that includes 'produce paper versions of the parent questionnaire' 'produce paper versions of the children questionnaire.' For complex projects, there may be many levels of summary

The work packets are the lower level tasks that provide details of work that will be assigned. As a rule of thumb, work packets might require from about eight to eighty work hours to complete—a reasonable numbers of hours that can be specified and that makes sense as an assignment. In the WBS diagram below, there are four work packets for the subtask called “4.1 Prepare Interview Manual.” The work packet 4.1.1 might require about 20 work hours and might be completed by a small team. The work packet 4.1.2 might require about 8 work hours and might be handled by one person. That same project manager might complete the work packet 4.1.3 which might require about 8 work hours; the work packet 4.1.4 might require 10 work hours that the small work team members could split.

A work breakdown structure has two levels: summary tasks and work packets.

(image) Project managers will consider how to distribute the work packets to specific team members. All the work hours for a given team member will be summed and multiplied by that person’s hourly rate (cost per unit). Adjustments be made if the overall WBS budget total does not match the budget amount that the project was awarded.

After estimates are created, the project manager will input all team members’ information plus the non-salary cost elements into a master budget. A basic master budget example is given, below.

Basic master budget example:

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Number of Months</th>
<th>Cost per Unit</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base salaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Manager</td>
<td></td>
<td></td>
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<tr>
<td>Data Manager</td>
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<tr>
<td>Fieldwork Manager</td>
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</tr>
<tr>
<td>Accountant</td>
<td></td>
<td></td>
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<tr>
<td>Assistants</td>
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<td></td>
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<tr>
<td>Supervisors</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Interviewers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data entry operators</td>
<td></td>
<td></td>
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<tr>
<td>Drivers</td>
<td></td>
<td></td>
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<tr>
<td>Translators</td>
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<td></td>
<td></td>
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<tr>
<td>Computer programmers</td>
<td></td>
<td></td>
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<tr>
<td>Incentive payments</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Travel</td>
<td></td>
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<tr>
<td>Researchers</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Interviewers</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computers</td>
<td></td>
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<tr>
<td>Printers, etc.</td>
<td></td>
<td></td>
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<tr>
<td>Computer/printer supplies</td>
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<tr>
<td>Photocopy/Fax machine</td>
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<tr>
<td>Office supplies</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Communications (phone, fax, postage, etc.)</td>
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<td></td>
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</tr>
<tr>
<td>Equipment maintenance</td>
<td></td>
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<tr>
<td>Printing costs</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Questionnaires</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Training manuals</td>
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<td></td>
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<tr>
<td>Reports</td>
<td></td>
<td></td>
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<tr>
<td>Miscellaneous (maps, listings, manuals, etc.)</td>
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<tr>
<td>Consultant costs</td>
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<tr>
<td>International consultants</td>
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<tr>
<td>International per diem</td>
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<td></td>
</tr>
<tr>
<td>Local consultants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local per diem</td>
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<td></td>
</tr>
<tr>
<td>Local travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingency (100%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL COST</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

As the project is implemented, there are different techniques for monitoring whether project expenses are in line with progress. Some projects incorporate the cost information into the project schedule so they can project the expected balance at several defined time points. Project management software can be useful for this. Some projects use a technique called 'earned value analysis,' which determines if the work effort expended and the costs incurred (i.e., actual cost) are in line with the expected progress (i.e., planned value).

*Earned value analysis shows if work performs better or worse than planned.*

(image)

The quality dimension. Project managers are always thinking about quality issues as they balance the ‘triple constraint.’ The guidelines on Survey Quality provide guidance for assessing and managing quality of 3MC survey deliverables.
outputs (for example, data sets and response rates and bias). Those guidelines discuss project management processes: tools used to address quality, including: quality planning, quality assurance steps, and monitoring and controlling activities.

Beyond these core project management areas, there are other areas, including: human resources, communications, risk, procurement, and change-management. These may be discussed as part of the core areas in the base management plan; they may have distinct importance on some 3MC projects and thus warrant their own management plans. More information about all project management areas are available through the PMI website.

Project Management Phases

There are four [project management phases](#) that all projects pass through: initiation, planning, executing, and closing. These phases (some project teams may break the executing phase into two separate pieces—implementing and controlling/monitoring). During the initiation phase, the project managers gather information about the project and seek authorization to move forward with project work. During the planning phase, the project managers create a management plan that addresses the core areas of scope, time, costs, and quality as well as other relevant areas (human resources, communications, risk, procurement and change-management). During the executing phase, the project team members complete the work activities and produce survey deliverables using project management monitoring and controlling processes. During the closing phase, the project managers archive project elements, obtain acceptance of deliverables, and document the lessons-learned which may help future survey efforts.

The guidelines below outline activities that are completed in each of these phases. In large and complex projects, there may be sub-project components that independently pass through the phases at different times. The four core project management phases are useful for all projects, regardless of size and complexity.

Guidelines

**Goal:** To establish a project structure for managing the 3MC survey lifecycle and to use project management processes to effectively complete the study management phases: initiation, planning, execution, and closing.

1. Implement the 'Initiation Phase' of the project.

**Rationale**

After there is a trigger indicating that the project will occur (e.g., a funding announcement), it is important to establish project sponsors and decision-makers are committed to moving forward. Early in the initiation phase, project managers educate project leaders in ways to help everyone agree about the goals and approaches. In this phase, project leaders authorize the project managers and team to carry out the project.

**Procedural steps**

1.1 Develop a clear understanding of the project. This begins by clarifying the research questions, aims, and objectives described in [Study Design and Organizational Structure](#). Incorporating and sharing this understanding help keep project leaders, project stakeholders, and team members aligned. Steps that can be taken include:

1.1.1 Create a project summary that is easy to share and can be included in future documents. The summary include:
A problem statement that describes what needs to be solved and why;
Project goals (which integrate research aims and management aims) that are high level targets and that end results (TALIS); and
Clear, measurable, and realistic objectives that provide specific details for the goals and may include: re objectives, financial objectives, business objectives, quality objectives, technical objectives, performance/completion objectives, etc.

1.1.2 Begin to create a detailed list of project stakeholders and anticipate their relationships to the work acti

1.1.3 Determine the approaches that will work best within the culture and organizational structure of the pro example, if there are multiple project managers, determine whether each will have a distinct budget to m if all managers will use the same master budget. There will be different strategy options, and it may be h assemble project team members to brainstorm ideas, assess feasibility, and consider the desirability of di approaches.

1.1.4 Gather requirements, including details of what the research and management outcomes will look like. requirements might be stated in the contract with the sponsor (e.g., the project might need to complete c deliverables before the second year of funding is released). Some requirements will describe the product the sample design, survey questionnaires, etc.), and details might be gathered from stakeholders includin sponsor and the principal investigator. To verify understanding of product requirements, some projects c prototypes before moving into the planning phase. Many of the requirements will pertain to the manager aspect: what are the quality standards, what ethical issues need to be met, what milestones belong on the schedule, what level of expertise is required from scientific/technical human resources, what are the bud issues?

1.1.5 List the deliverables and each of their success criteria. For example, the list might include the item "su questionaire," and the success criteria might include “short enough so response rate is not compromised “sufficiently tested so response bias is low/acceptable.”

1.1.6 Identify the assumptions for the project. Stakeholders may have specific expectations. For example, h respondents may expect that husbands may join their wives’ interviews. Or, data end users may expect to a specific file format. Early interactions with stakeholders can help avoid later misunderstandings.

1.1.7 Identify potential risks.

1.1.8 Gather information from past similar projects.

1.2 Draft a scope statement. A scope statement provides the road map that guides the project team throughout t project and lets everyone know what is expected. As quoted from baseball legend Yogi Berra, "You've got to careful if you don't know where you're going, because you might not get there”.

1.2.1 The components of a typical scope statement are listed below.

- Scope description, based on project summary.
- Deliverables list, which may be elaborated during planning.
- Acceptance criteria, which indicates what the sponsor and/or director (a.k.a. principal investigator or sc lead) require in order to accept the deliverables, and may include quality elements.
- Exclusions, which include those things that are out-of-scope for the project team.
- Constraints, which are factors that may limit or have an impact on final project results.
- Assumptions, which may be a list of major cost drivers that impact the deliverables (e.g., the period of performance and the target response rates).
- Staffing/scheduling plan indicating the individuals that will work on the project during what time perio
1.2.2 Use the scope statement to define the boundaries of the project—what team members should expect to see and especially what is out-of-bounds. For example, separate from the project budget, the sponsor might deliver a sample frame from a 'sampling database vendor' to the project team. In this case, it would be outside the scope (and duplicative) for the project team to design and create or to seek a sample frame for the project.

1.3 Write a project charter and obtain signatures from the project decision-makers. The project charter is a high-level document that provides a synthesis and authorizes the project. It is short and concise and does not change over the life of a project unless there is a dramatic scope revision. Signatures are added to the document to: a) demonstrate project team commitment; b) provide authorization to start the project from the top-level decision makers; and c) specify the project manager, PI, or scientific lead, additional managers, and pre-committed core staff member.

1.3.1 The components of an example project charter are listed below.

- Basic project information such as name and related projects.
- Project management team members and internal authorities to whom the team reports.
- Sponsor and significant stakeholders (often called the customer).
- Business objective (why the performing organization is interested in conducting the project).
- Project objective (top-level statement of research aims).
- Deliverables (top-level list of primary deliverables).
- Risks, constraints and assumptions (top-level lists that all parties understand and agree can be tolerated).
- Schedule milestones (most significant events on the schedule).
- Overall budget.
- Signature section.

Lessons learned

1.1 Taking time to complete the steps in the project initiation phase yields great benefits. The process helps build cohesion and sponsor confidence. The outputs are useful for future communications and they facilitate the start of other project phases. Especially importantly, the initiation activities result in full commitment to the project from members and stakeholders.

1.2 Sponsors and directors (e.g. principal investigators/scientific leads) will vary on how much they desire to participate in the initiation phase. They may not be interested in learning specific project management vocabulary or tool. They may not understand the value behind disciplined use of documents like the scope statement and project charter. Whether or not these specific documents are shared, the decision makers will need to be involved in two things: verifying the project scope and budget, and providing authorization for the project team to launch the study.

1.3 Establishing effective communication channels with project stakeholders early in the project can help reduce the chance that barriers will slow down the project progress. During the initiation phase, project managers should identify most of the stakeholders they need to consider during the project lifecycle.

1.4 As the project team begins to form, project managers should spend time informing team members about the elaborating details of the project and seeking input from those individuals that have knowledge about specific elements of the project. It takes time to build an effective team. Especially in the early phase of the project, project managers will benefit if they invest time building team understanding and commitment.

1.5 When there are clear sub-projects, especially when they have their own distinct budgets, the relevant project members may participate in multiple initiation phase activities. For example, a late decision to fund the creation of a data repository at the end of a project might result in a distinctly budgeted sub-project, and a few of the project members will carry out the initiation phase activities when it is time to launch this component.
2. Implement the 'Planning Phase' of the project.

**Rationale**

Project plans are used to guide how projects will be implemented, including what will be done, who will do what, how stakeholders and team members will receive information, how progress will be tracked, ways the project plan might be corrected when risks are encountered, and how quality will be ensured.

**Procedural steps**

2.1 Hold an initial planning meeting with all the team members, which might include review of the documents developed during the initiation phase, discussion of team members’ roles/assignments across the project elements, and consideration of the project milestones.

2.2 Work through the elements in the production lifecycle, creating activities lists and work breakdown structures.

2.2.1 In addition to the elements in the production lifecycle, use scope and deliverables documents to list top summary activities.

2.2.2 Under each summary activity, list the specific tasks.

2.2.3 Create groupings that can be completed in 8–80 hours (i.e., WBSs).

2.2.4 Describe the work using a detail level that clarifies what to do, but also recognizes that the person or team who will implement it knows more about how to do it.

2.3 Put together the project schedule. There are project management software packages that provide technical tools to developing schedules. Some software integrates schedules with resource allocation and budgets. 3MC projects have sub-projects, and some teams might develop separate schedules for the sub-projects. Steps for developing a project schedule include:

2.3.1 Put activities in order from earliest to latest.

2.3.2 Estimate the duration of activities.

- Most projects estimate activities’ durations from the top to the bottom (major phases broken to smaller) sometimes works better to estimate from the bottom to the top.
- If available, historical information from past projects and input from experienced colleagues might help estimating.
- Techniques can be used to analyze whether or not the combined durations can be accomplished within the scheduled project period. The critical path tool (discussed in this chapter's Introduction) uses activity durations to find the longest sequence of tasks in the project. The ‘program evaluation and review technique’ (PERT) graphically displays the pathway and durations between milestone activities. Information about these techniques is available at the PMI website.

2.3.3 Specify the dependencies among activities—what is required to be complete before each next task? The commonly used type of dependency is ‘finish-to-start’ (finish task-A then start task-B). Other types of task dependencies include ‘finish-to-finish,’ ‘start-to-finish,’ and ‘start-to-start.’

2.3.4 Place the activities on a calendar.

- Consider if there are pre-determined deadlines for some tasks then work backwards from them.
- Include start and end dates for the activities based on the duration estimates.
- Add milestones which are key project events that don’t have durations but mark important things like achievements and due dates.

2.4 Assign activities to individuals.

2.4.1 Based on activity durations, determine the number of hours involved and consider how many individuals needed. Then, based on their available hours per day, determine how many days the activity will take. Take into account that individuals will have other commitments (for example, department meetings), and that some are working on multiple projects in the same week.

2.4.2 Consider how efficient individuals might be when estimating the hours and days needed. Think about what influenced productivity—for example, multi-tasking tends to decrease productivity.

2.4.3 Integrate the calendar and the results of assigning activities to see if any changes in the calendar are needed. For example, is the overall schedule delayed because some specialists are only available to start activities points than anticipated? If needed, consider techniques for shortening the schedule such as ‘crashing’ or ‘tracking’ as discussed in the Introduction.

2.4.4 Obtain agreement from staff supervisors that the project plan can include the individuals for time periods of hours desired.

2.5 Specify details about the people and resources.

2.5.1 Add the names of individuals to the schedule and calculate the salary cost of the labor using actual pay numbers.

2.5.2 Create a responsibility matrix which designates who leads and who works on major areas of the project.

2.5.3 Create an organizational chart for the project.

2.6 Create a project budget.

2.6.1 The project budget will include both labor costs and non-salary costs. A summary budget may include (row) for each broad category; for example, managers, programmers, supervisors, interviewers, etc. A detailed budget may include a line for each individual (by name) and each specific non-salary item in the budget.

2.6.2 Typically, there is a rollup budget showing the total budget combining all years of the study as well as individual year-by-year budgets. Often this is accomplished by using tabs in a spreadsheet for yearly budgets to link to a master tab/sheet with the rollup budget.

2.6.3 The budget may be broken into finer time periods if these will be needed for monitoring and reporting purposes.

2.6.4 Some projects hold a budget line with ‘contingency funds,’ that is, undesignated funds that can help cover unanticipated costs.

2.7 Assess and plan for project risks. “Risk can be defined as the function of three variables, an event that could affect the project, the probability that the event could happen, and the impact the event will have on the project if it happens.” Every project faces the chance that anticipated risks, as well as risks that were never imagined, can affect the project. By planning ahead, the impact of risks on the project can be reduced.

2.7.1 During early planning stages, the project team should attempt to identify potential project risks. Team members, as well as others that have handled projects in the past, may be able to help create lists of risks. There are several general areas that may introduce risk. Examples of conditions that may increase risk include...
levels of project complexity, new technology that may be poorly tested or not work as promised, geographic dispersion of team members that may increase miscommunication, and lower level of experience among members.

2.7.2 There are two key questions that can be asked for each identified risk: what is the potential impact if it occurs, and what is the likelihood that the risk might threaten the project?

2.7.3 For planning purposes, the team might use a form to list and analyze the risks.

2.7.4 For each risk, the team can indicate a response. Some of the techniques include:

- **Acceptance**: planning no action and living with the consequences which makes sense if the costs of handling the risk are greater than the cost of the risk.
- **Avoidance**: changing the project plan to eliminate the risk.
- **Transference**: hiring a third party to handle the risk.
- **Mitigation**: making small project updates that won’t eliminate but will reduce the probability or impact of the risk.

2.8 Determine the communication needs for the project. It is especially important to establish good communication when a project is complex and geographically dispersed, like many 3MC projects are. Steps to help plan for effective communication include:

2.8.1 Determine what stakeholders and team members need to know about the project.

2.8.2 Consider what communication channels work best and under what circumstances.

- When and how often are written/posted status reports most effective?
- When is it beneficial to hold face-to-face sessions?
- Which team members can effectively receive and participate in email exchanges, conference calls and videoconferencing?

2.9 Specify what project changes the team should track and manage. Since all projects experience changes, it is essential to create a plan for change management. A useful strategy is to choose baseline documents, such as the work breakdown structure, the schedule, and the management plan, and then handle changes through version control as these documents are updated to reflect change. Some projects require team members to submit written change requests that require approval before aspects of the project can be amended.

2.10 Compile the written project management plan. Often kept as an electronic document, the project management plan includes sections for the project components and contains project planning documents and project monitoring materials. The project management plan will address all phases (initiation, planning, execution, and closing) and processes (scope, schedule, cost—all informed by quality). One single project management plan might include project components (for example, the survey production lifecycle components) and all the additional processes (communication, risk, change, and procurement). Alternatively, the project team may decide to work with multiple project management plans that break processes and/or components for convenient oversight.

**Lessons learned**

2.1 As projects become more complex, it is usually necessary to add extra effort and time specifically to account for complexity. This is because there will be more interactions with increased communications requirements and management needs.

2.2 Many aspects of planning (and project management, in general) require high levels of communication with team members and stakeholders. Special steps may be required on 3MC projects to account for different languages.
and communication norms.

2.3 Developing plans that work well in specific local areas may require project managers to consult with local experts. Several examples of ways local stakeholders contribute to the sample plan development are discussed in Sample Design, Guideline 2; Questionnaire Design, Guideline 3 discusses the importance of including local participants when defining the approach for creating questionnaires, and Instrument Technical Design, Guideline 5 suggests that plans for usability tests should consider the involvement of interviewers and it discusses issues the interviewer and participants are from the same or from different cultures.

2.4 Plans that include the use of technology will need to include extra schedule time for development and testing. Instrument Technical Design, Guideline 6 discusses lessons learned in this regard in Burkina Faso.

2.5 Quality assurance and quality monitoring should be addressed early in the design planning process. An example of how handled this is discussed in Questionnaire Design, Guideline 6.

2.6 The project team should develop and share thorough written documentation of plans and adjustments to plans. Beginning this work in early phases of the project and continuing through the lifecycle will result in high quality written products.

3. Implement the ‘Execution Phase’ of the project.

Rationale

The ‘Execution Phase’ of the project includes implementing steps, as well as monitoring and controlling activities.

Procedural steps

3.1 Build and strengthen the project team. The most important assets on a project are the people. Project managers need strong interpersonal and leadership skills to gain high performance from individuals and the overall team. Specific techniques include:

3.1.1 Through the project period, review and clarify the roles and responsibilities each team member holds. Each given team member understand their part and importance on the project. Communicate information to all team members so that everyone understands how their own area of responsibility interacts with their colleagues’ areas of responsibility.

3.1.2 Provide specific and achievable goals. Through work packets or other means of assigning work, provide directions that help a given team member determine what will result in ‘success’ and how to measure progress towards completing goals.

3.1.3 Show respect and be honest in all interactions with the team. Individuals enjoy their work more and perform better when they feel valued and believe they can trust leaders.

3.1.4 Provide feedback to individuals and small teams in a timely manner. When effective, correcting feedback can help teams understand how well they are performing and help build self-confidence.

3.1.5 Support the individuals and the overall team. If there are obstacles hindering success, provide support and commitment to mitigate the problems.
3.1.6 If the team suffers from ‘people problems’ (which might include conflicts or mixed commitment to the project or other issues), address these issues immediately.

3.1.7 Devote sufficient time in meeting and communicating about the project with the team members. Encourage team leaders to communicate frequently with their team members. Up to 80% of project management issues occur at a communication level and this activity will significantly enhance project success.

3.2 Maintain the project planning documents. As the project is executed, many aspects of the original plan need to be updated to fit actual and changing circumstances.

3.2.1 Retain the baseline documents to help with ‘lessons learned’ and to provide evidence when justificaiton for changes is required.

3.2.2 Use version control practices to produce and maintain revised planning documents. Team members should have easy access to those planning documents that help them with their work.

3.3 Carry out monitoring activities for all project activities. Do all activities comply with ethics and standards set out in the project? Is the specified quality being met? Are all aspects of the scope (product and project) being met? Are there any scheduling problems? Is the work being completed as budgeted? Have new risks been identified?

3.3.1 Gather and analyze data about the survey production elements. The data may cover status, budget, quantity, and auxiliary areas.

3.3.2 Define what reports will be useful and how they will be produced.

- On a regular basis, gather information from teams (for example, in regular team meetings) and from technical systems.
- Consider using electronic reporting systems and/or Web-based ‘dashboards’ that provide information to team members and stakeholders, on-demand.

3.3.3 Compare data to expectations in the planning resources.

- Status information may focus on progress towards meeting the scheduled milestones. Did tasks begin on time and does the actual duration match the planned duration? A Gantt chart may help identify any variances.
- Cost variances may occur if there are extra hours per task or higher costs for units of work or materials. As discussed in the Introduction, earned value analysis can help determine if schedule and cost variances are significant.
- Survey data may be analyzed during the data collection phase to determine if the questionnaires are per Rome and with acceptable levels of bias (see Paradata and Other Auxiliary Data).

3.4 When projects are ‘off-track,’ carry out corrective steps in ways that manage and control the changes.

3.4.1 ‘Responsive design’ as discussed in Survey Quality provides guidance for correcting project issues.

3.4.2 Consider whether or not the project manager and project team have authority to implement specific changes. Some changes require higher authority approval.

3.4.3 Consider what type of impact the proposed changes might have on the budget. Might they require an allocation of contingency funds?

Lessons learned
3.1 During the executing phase, project team members and their managers may become consumed with work related to production of the survey. But more than ever, project managers need to spend time on project management activities in order to keep the project on track. Almost always, this is the most costly portion of the project and critical to pay attention to scope, schedule, cost and quality performance.

3.2 The value of communication with team members and stakeholders in this phase cannot be over-stated. As in Questionnaire Design, Guideline 4, not all participating groups in a 3MC project will be confident about participation input. It is important to emphasize that every contribution is valued even when not all suggestions are incorporated into design modifications.

3.3 Implementing quality control protocols from the start of a project permits the survey organization and coordination center to monitor performance and take corrective action when required. Interviewer Recruitment, Selection, Training, Guideline 5, for example, discusses how interviewer certification protocols might be implemented in conjunction with additional interviewer training when interviewer candidates fail to pass on their first try.

3.4 Many organizations have used a quality control technique known as adaptive or responsive design which uses paradata collected during survey implementation to determine if performance such as nonresponse and response rates indicates the project needs to adapt/correct the original design.

3.5 Lessons from other projects can be helpful and the provides evidence of success using continuous improvement techniques for planning and implementing the survey.

3.6 A growing number of organizations are adopting professional project management frameworks to conduct project activities. The Project Management Institute (PMI) and the International Project Management Association (IPMA) provide two of the most commonly followed frameworks. Many organizations follow institute-wide professional project management best practices and encourage staff members to become certified project management professionals.

4. Implement the ‘Closing Phase’ of the project.

Rationale

As work is ‘wrapped up’ for the final elements of the survey production cycle, managers need to take steps to effectively close the project.

Procedural steps

4.1 Distribute the final deliverables. These deliverables may include data systems, reports, instruments, and other products. See Data Dissemination for additional details.

4.1.1 Data sets for surveys typically need to be transferred with special consideration to assure that privacy identities of survey participants are protected. Many projects are required to operate under data management plans. These plans may specify:

- Some data may be restricted from distribution beyond the protection of the project’s secure storage system and may need to be destroyed during the closing phase.
- There may be specific methods that must be used to transfer data from the project to other parties. Legal agreements such as data transfer and data use agreements may be required.

4.1.2 Final reports and other products may be developed for public dissemination or may be transferred only to sponsor and specific stakeholders.
The final report should be nearly complete at the end of the study if the project team keeps the manager plan updated throughout the project.

Final reports and data products may be compiled for hard copy production (for example, the Survey of Ageing and Retirement in Europe) or for online access (for example, the ESS).

4.2 Obtain formal notice of acceptance of deliverables.

4.2.1 The project might use basic procedures such as email confirmation that each deliverable is acceptable.

4.2.2 Some projects provide ‘acceptance’ documents that verify that ‘success criteria’ are fully met.

4.3 Carry out steps to gather ‘lessons learned’ information.

4.3.1 Throughout all phases of the project, managers will gather information that can inform a final summation the ‘lessons learned.’

4.3.2 At the end of the project, it is useful to hold debriefings with team members and stakeholders to consider what 'went well' and what 'could have gone better.'

4.4 Close all contracts and complete all requirements in legal agreements such as non-disclosure documents, misunderstandings, data use agreements, human subject protections documents, and such.

4.5 Archive project items, including a project closeout report.

4.6 Verify that all team members are transitioned off the project.

4.7 Acknowledge successful completion of project. Congratulations!

Lessons learned

4.1 The last parts of the project ‘execution phase’ may experience very tight timelines which may compromise timeframe for the ‘closing phase.’ With this in mind, many of the closing activities can be started even as early phases are in progress.

4.2 The archiving activities and production of final reports are much easier when project management processes are maintained throughout the project life and when project teams produce ongoing survey and project management documentation.

References