

Project Approaches & Methodologies

by Sophia Tutorial



WHAT'S COVERED

This is a lesson on project approaches and methodology. Specifically, how projects can be categorized and two types of projects will be covered in depth:

1. Types of Projects
2. Project Methodologies
 - a. Phase-based Project
 - b. Iterative Project

1. TYPES OF PROJECTS

Projects can be categorized based on the results that they produce.

- *Processes*: A project can be focused on developing or adapting processes. Human resources might launch projects to improve the hiring or annual review process. And the results of these projects are often used internally by organizations.
- *Products and Services*: Products and services are often produced by projects, such as automobile design or call centers. The result of these projects is often sold to customers.
- *Technology*: Technology projects focus on the creation or the evolution of technology. Software development and the development of hardware to run the software would be considered technology projects.
- *People-Focused*: People-focused projects might involve skill development, improving performance, coordinating teams, or just increasing satisfaction in the workplace.

All projects ultimately impact people. The HR process involves people hiring people, cars are driven by people, the end users for most technology are people. So any project must have project methods that help provide those people with exactly what they want.

2. PROJECT METHODOLOGIES

There is a wide range of **project methodologies** used in project management. These will vary based on the industry, organization, or the individual project manager. Most methodologies are subsets of two broad types:

- Phased-Based Projects
- Iterative Projects

The project manager chooses the method based on how much is known about the requirements for the expected deliverables.

TERM TO KNOW

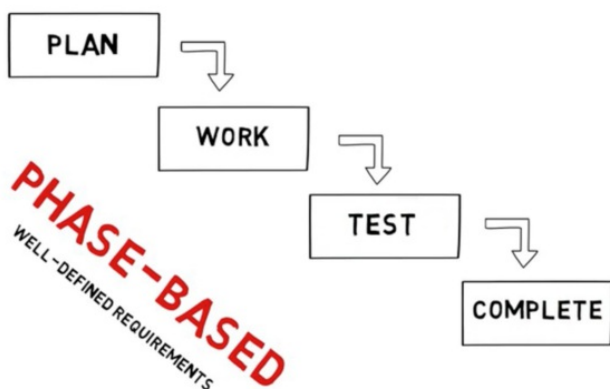
Project Methodology

The process used to manage the project life-cycle.

2a. Phase-Based Projects

Phase-based projects are used when the results are well defined, for example, in the construction of a house. Phase-based is also used for safety-critical projects, such as avionics software for airplanes or nuclear power plant monitoring. Planning is considered the most important aspect of a phase-based project.

Before any work begins, the project team will create detailed documents outlining the requirements for the deliverables, the schedule and the budget, and a timeline showing exactly how the work will proceed.

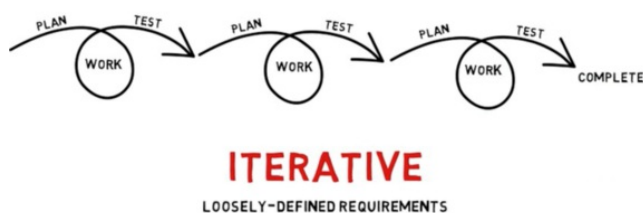


A phase-based project will then proceed sequentially through each step, with the intent that the planning phase will not be revisited. That's why this type of project is often known as a “waterfall project” because it is difficult to move back upstream once you've moved on to the next stage.

2b. Iterative Projects

Iterative projects, on the other hand, don't put such an emphasis on planning. They are used when the final product cannot be as well known when the project starts, or when the results are more difficult to define.

So how does that work if the project doesn't know what it's producing? Each stage of an iterative project focuses on creating small deliverables that help inform the next stage of development. Between each stage, the deliverables from the last stage are tested and new plans and new deliverables are targeted for the next stage.



It might be easier to think of an iterative project as a collection of small phase-based projects completed in succession. These continue until the project has produced a product that satisfies the initial goals.

One well-known iterative methodology is called “agile”, and there is a defined process for how it should proceed. You'll often find this and other iterative methodologies common in the technology projects that we discussed earlier, and also in research and development.



You are the project manager at a video game company and you are in charge of developing an educational new video game for pre-school kids.

Question: Which methodology would you use and why?

Answer: The iterative project may be a better choice since it's difficult to know what is considered fun for the target demographic until the project has actually created a partial product.

SUMMARY

Different categories of projects were discussed in this tutorial and included **types of projects**. There are many categories of projects including people, software, and products, and the methods that can be used to manage those projects. With **project methodologies**, there are two broad processes used to manage the project life-cycle, which most projects fall into phase-based projects and iterative projects. Phase-based projects are clearly defined and structured, whereas iterative projects tend to focus on smaller projects that result in further projects that ultimately lead up to a deliverable the meets expectations.

Source: This work is adapted from Sophia author Jeff Carroll.

TERMS TO KNOW

Project Methodology

The process used to manage the project life-cycle.