1. **Monitoring**

Monitoring a project's progress enables control of the project's progress based on the agreed-upon timetable, the standard of quality and wellbeing of the resources, including people, money, and materials.

1. **Controlling**

The purpose of project control is to plan and keep track of tasks so they may be finished on schedule, within budget, and to the desired level of quality. Project management is complex. Unexpected risks and challenges are part of the dynamic environment of project management.

1. **Baseline**

Project managers utilize the baseline to assess the general state of a project. Using the project management triangle, the cost and/or scope will change if a project is running behind schedule. Additionally, it indicates that the baseline has changed.

1. **Earned Value**

helps project managers measure a project's performance. It's the relationship between the budget and the percentage of completion of a project. It is a method used to calculate the health and status of any project by taking time and cost into consideration.

1. **Project Control**

Project Controls is a profession that is underappreciated as a collection of specialized talents in and of themselves. They play a crucial role in delivering the necessary benefits to cost, time, and performance, which are essential for successful project and program outcomes.

1. **Plan-Monitor-Control Cycle**

The project management cycle of monitoring and controlling entails keeping an eye on the process after it has been put into practice, spotting issues and potential risks, and implementing a mitigation plan to manage the new process.

1. **Closed Loop**

A mechanical or electronic device known as a closed-loop control system regulates a system automatically to keep it at a specified state or point without human intervention. It employs a sensor or feedback mechanism.

1. **Real-Time Data**

Information provided instantly after collection is called real-time data (RTD). The information is sent on time and without delay.

1. **Frequency Counts**

Calculating how many people fall into a particular category or how frequently a characteristic occurs is known as a tally or frequency count.

1. **Scope Creep**

This is known as scope creep when project scope changes are made without any control mechanism, such as change requests.

**Chapter 7 – Review Questions**

* + - 1. Why can’t the PM use the organization’s current information system for project monitoring and reporting?

Information systems are frequently made to deliver information at crucial junctures in a business setting, like at the end of the month, that cannot be tolerated for monitoring and reporting. In other words, the PM needs current information to guarantee the success of the project. Timing and specificity are also essential for project planning and management, but

1. What does it mean to say that project monitoring and control are on opposite sides of project selection and planning?

In order to ensure that the project is completed on time and within budget, monitoring and control are essential. The objectives are, however, defined, determined, and made precise by the project selection and planning priorities.

2.The monitoring system is the direct connection between project planning and control. Why is this true?

Project control ensures that the project is on the proper path to accomplish these goals. Project planning outlines the project's tasks, resource management, and all other project goals. Additionally, monitoring involves acquiring and evaluating data.

3.Why is it a good idea to avoid periodic reports, except in specific cases such as reports tied to the organization’s accounting system?

First off, the timing of reports should be based on deadlines, milestones, changes in the project's scope, difficulties, the project team's general requirements, and other relevant information. Additionally, users may need to pay more attention to routine reports, which help them understand the passing of time and vital information.

4.Aside from the obvious benefits of project control, what other benefits might result from a good project reporting system?

The first major advantage is that it can save time by eliminating the submission of certain superfluous data and information. Clear communication with team members and stakeholders would result from effective reporting. A strong project report may also assist in and improve future project planning.

1. Using earned value analysis, explain how the total cost of a partially completed project can be estimated.

By avoiding the submission of certain unnecessary data and information, it can save time, which is the first significant benefit. Effective reporting would also lead to transparent communication with the team's stakeholders. A great project report may also help and enhance future project planning.

**Chapter 7 – Discussion Questions**

1. The chapter included an example of a firm where the PM dispensed with all the planning formality because no one ever looked at it. What did the PM think the purpose of such planning was in this firm? What should the firm do in the future to correct this problem?
2. In this case, the project manager believed that because no one looked at it, project planning was not important. The project manager likely thought project planning was a waste of time because it diverted their focus from other important activities. A significant loss of business was the result.
3. The company must: i. Emphasize the importance of planning for the project's ultimate success in order to fix the issue. This might necessitate formal training courses with case studies illustrating problems that arise from efforts that are poorly planned.
4. Make sure management examines project plans, participates more in project planning, and uses these plans to monitor project progress at milestones and stage gates..
5. “In order to manage for overall project success, control must be exercised at the detailed work level for each aspect of project performance or no significant change will occur.” Does this mean that the PM should micromanage the project? If not, what does it mean?

It does not imply that the project manager must oversee every undertaking detail. Instead, it implies that each project manager must keep an eye on and manage his or her task.

**Chapter 7 – Problems**

1. A project in its 26th week has an actual cost of $270,000. It was scheduled to have spent $261,000. For the work performed to date, the budgeted value is $272,000. What are the cost and schedule variances for the project? What are the SPI and CPI?

This problem's project is currently in its 26th week. The actual cost of the repair was $270,000. Work done at budgeted cost EV = $272,000 Work timetable PV budgeted cost = $261,000 Variance in costs and expenditures = EV - AC = $272,000 - 270,000 = $2,000 Project schedule deviation = EV-PV = $272,000 - 261,000 = $11,000 EV/PV = $272,000/261,000 = 1.042 is the formula for the Schedule Performance Index (SPI). CPI = EV/AC = $272,000/270,000 = 1.007 Cost Performance Index.

In conclusion, more money has been spent than was originally planned, yet far more progress has been accomplished than was expected or perhaps somewhat more compared to what was spent.

1. A project has just completed the 87th item in its plan. It was scheduled to have spent $168,000 at this point in the plan but has spent only $156,000. The foreman estimates that the value of the work finished is about $162,000. What are the spending and schedule variances for the project? What are the SPI and CPI?

The actual cost of the renovation was $156,000 (AC). Work completed at budgeted cost (EV) of $162,000 The planned work's budgeted cost (PV) is $168,000 Variance in costs and expenditures = EV-AC = $162,000 - 156,000 = $6,000 EV-PV = Schedule Variance = $162,000 - 168,000 = -$6,000 EV/PV = $162,000/168,000 = 0.964 is the formula for the Schedule Performance Index (SPI). CPI = EV/AC = $162,000/156,000 = 1.038 Cost Performance Index In this instance, less money has been spent than was anticipated. However, even though progress has outpaced expenditures, less progress than anticipated has been accomplished.

**Chapter 7 – Case Study: St. Dismas Assisted Living Facility Program Plan - 5**

***What do you think the construction project manager should have done when the Director of Security stopped attending the meetings?***

The construction project manager had an excellent communication system in place to keep the project team informed even if they were unable to attend meetings. Kyle Nanno should deliver the CEO's message to the Director of Security (Meredith et al., 2020). Kyle should consult Fred and the other members of the project team for their opinions on the location of the security panel if the Director of Security doesn't react by the timeframe he sets. Fred needs to impose the proper disciplinary measures on the Director of Security because he has been a project team member but has not carried out his obligations..

***Is it an effective communication tool to send the construction project meeting minutes to the ALF steering team and the President? Support your answer***

Especially now that the project is almost finished and numerous details need to be followed up on, sending the minutes of this project's project team meetings to the construction team is an effective approach to communicate. The Steering Team and the President, however, only occasionally require the level of detail offered (Meredith et al., 2020). If appropriate information is provided, most people will want to comment on a project and take part in any essential decisions. If this is not suitable, then those individuals should only be updated on matters that directly affect them, and they should be notified that their feedback is essential to the project's success.

***How much time has to be made up for the original baseline schedule to be met?***

The Gantt chart for the case has been updated as of 4/11/01. There is a 14-day window for finishing the job. The project's original start date was fourteen days ago. The project's initial phase was finished 15 days later than expected. The project's Phases 2 and 3 were finished 14 days earlier than expected..

***Develop an action plan and draw a Gantt chart for the Parking Lot phase of the project. Answer Fred's questions***

The construction Gantt chart for the parking lot would look like this if everything goes according to plan:

A picture containing table

Description automatically generated

The Gantt chart would be modified as follows if St. Dismus heard back from the city on May 1, 2001: (The project's new conclusion date would be 6/12/01).

A picture containing table

Description automatically generated

The city must give notice by May 7 at the latest to meet the deadline of June 15. Thus, June 15 would be the project's completion date.

***What information does Fred need to decide on building a hair salon?***

This demonstrates scope creep. The construction of the hair salon was not initially anticipated. Fred must first choose if he wants to build a locals-only hair business. If so, he ought to request that the COO and the VP of marketing draft a thorough business plan that details the project's costs, benefits, and return on investment. Fred must then determine the impact of that on the construction project. He has to specify the additional costs, changes in the design, and changes in the schedule.