1. **Overview**

GQM approach is a method for developing and maintaining a meaningful metrics program that is based on three levels, Goals, Questions and Metrics. The approach uses metrics to improve the software development process while maintaining alignment with organization business and technical goals.

The purpose of document is to generate questions that define for Viking project goal *“Reduce product schedule by 10%”* and specify the measures needed to be collected to answer those questions

1. **GQM Chart**

***Goal:*** ***Reduce product schedule by 10%***

***Metrics: Initial estimate versus actual effort for each activity***

***Metrics: Total overtime hours in each activity***

***Metrics: Initial estimate versus actual staffing levels***

***Metrics: Person hours spent on rework***

***Question 5: How much time has been spent on rework?***

***Question6: Is the staffing level adequate to meet the schedule as predicted?***

***Question5: How many overtime hours have been required in each activity?***

***Question1: What is the actual schedule for each activity?***

***Question3: What is the actual level of effort for each activity?***

***Question2: What is the estimate schedule for each activity?***

***Question4: What is the estimate level of effort for each activity?***

***Metrics: Initial project schedule versus actual schedule***

1. **Description**

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| --- | --- | --- | --- | --- | --- | --- |
| ***Required Data*** | ***Source*** | ***Periodic*** | ***Responsibility*** | ***Metrics*** | ***Priority*** | ***Objective*** |
| ***Time estimate schedule for each activity*** | ***Project Tracking Spreadsheet*** | ***Monthly*** | ***Technical Lead*** | ***Initial project schedule versus actual schedule*** | ***High*** | ***The metrics help you know where you stay in your project versus initial estimate schedule. You will determine actual progress.*** |
| ***Time actual schedule for each activity*** | ***Report status*** | ***Weekly*** | ***Technical staff*** |
| ***# estimate level of effort for each activity*** | ***Project Tracking Spreadsheet*** | ***Monthly*** | ***Technical Lead*** | ***Initial estimate versus actual effort for each activity*** | ***High*** | ***With this metric helps you know actual effort can meet initial estimate. If not enough you must increase effort*** |
| ***# actual level of effort for each activity*** | ***Report status*** | ***Monthly*** | ***Technical staff*** |
| ***Time has been spent on rework*** | ***Report status*** | ***Weekly*** | ***Technical staff*** | ***Person hours spent on rework*** | ***Medium*** | ***The metrics help you know with the time for rework that can meet schedule predicted*** |
| ***Overtime hours have been required in each activity*** | ***Report status*** | ***Weekly*** | ***Technical staff*** | ***Total overtime hours in each activity*** | ***Medium*** | ***The metrics help you know you spent number of hours for overtime, you can compare with initial schedule predicted*** |
| ***# Number of staff*** | ***Project Tracking Spreadsheet*** | ***Monthly*** | ***Technical Lead*** | ***Initial estimate versus actual staffing levels*** | ***Low*** | ***The metrics help you know with number of staff you can meet estimate schedule for project. If number of staff not enough, you must add staff.*** |