Six Sigma

Six Sigma has revolutionized the way businesses achieve success. Companies like General Electric, Motorola and AlliedSignal have adopted this quality approach and made radical company-wide changes that improved productivity, decreased inventory, increased sales and, ultimately, increased profits significantly.

This presentation module discusses the concept and focus of the Six Sigma methodology. It details the basic concepts and strategy of Six Sigma such as a sigma, the Gaussian distribution, process capability and sigma defect levels. Also, the calculation for the sigma level is given.

Six Sigma uses a proven methodology to characterize, optimize and finally breakthrough to significant change.

Finally, the overall approach is defined and detailed in 5 stages, called the DMAIC approach:

- D – Define
- M – Measure
- A – Analyze
- I – Improve
- C – Control

The Strategy

- Characterize
- Optimize
- Breakthrough

The 6 Sigma Breakthrough Method

1. Define project and scope
2. Identify key process
3. Define project objectives
4. Identify process capability
5. Measure measurement system
6. Identify variation sources
7. Source potential causes
8. Verify variable relationships
9. Validate measurement system
10. Implement process controls