



Abstract

This capstone project investigates the pathway to achieving ISO 9001:2015 certification for the Department of Defense Management (DDM) at the Naval Postgraduate School (NPS).

What is ISO 9001? “ISO 9001 is a globally recognized standard for quality management. It helps organizations of all sizes and sectors to improve their performance, meet customer expectations and demonstrate their commitment to quality. Its requirements define how to establish, implement, maintain, and continually improve a quality management system (QMS).” (ISO 9001, 2024)



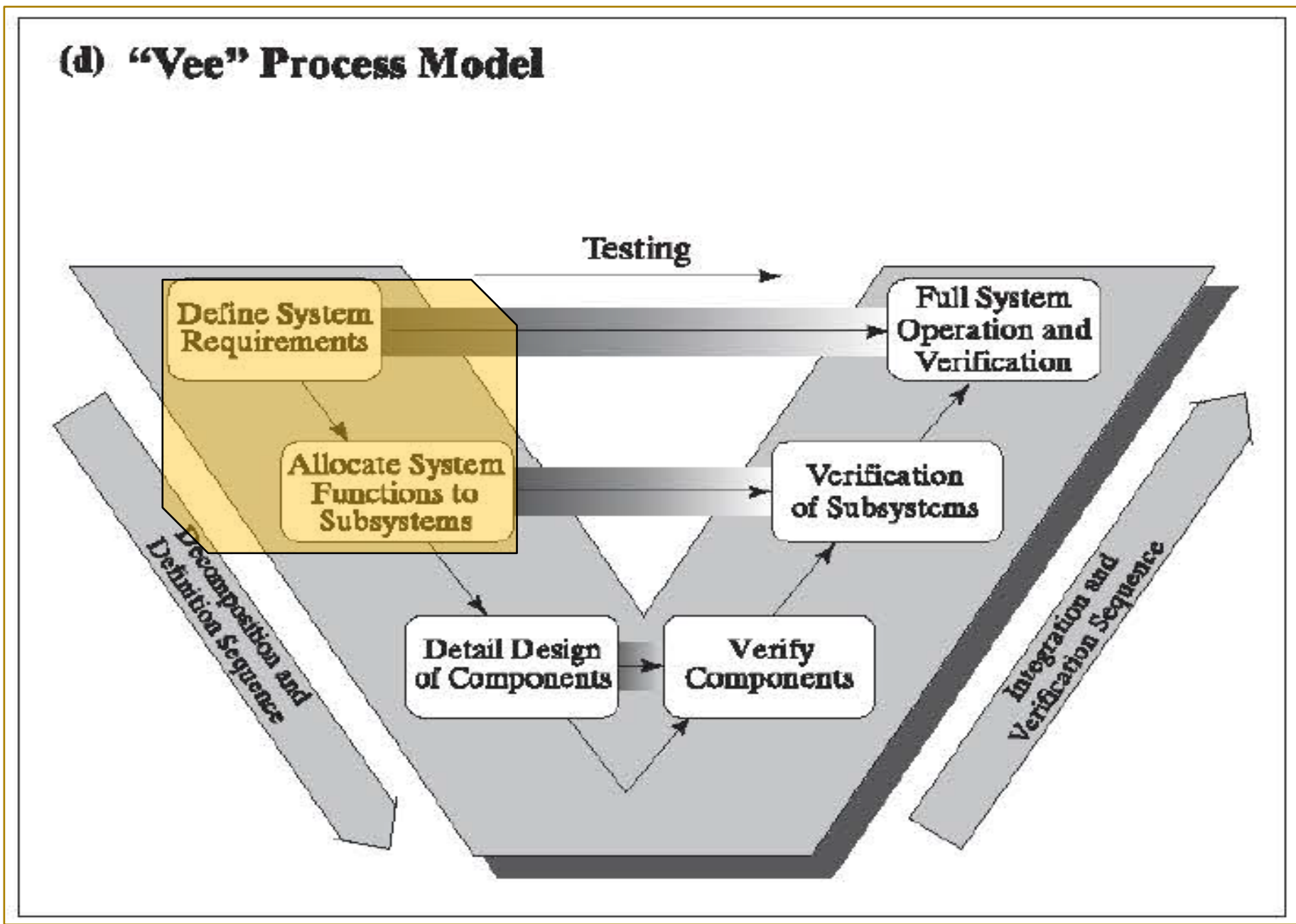
The Seven Clauses of ISO 9001:2015, Highlighting Key Focus Areas for Certification.

Methodology

Approach: The capstone team utilized the Blanchard and Fabrycky SE Vee model (2014), focusing on the critical steps of Defining System Requirements and Allocating System Functions to Subsystems. These steps were tailored to align ISO 9001:2015 standards with departmental processes, enabling the identification of compliance gaps.

Requirements Generation: The Define System Requirements phase identified the specific expectations and standards outlined in ISO 9001:2015. This phase emphasized the seven key clauses derived from the official ISO 9001:2015 standards (“International Standard: ISO 9001 Quality Management Systems-Requirements” 2015), providing a clear framework for addressing the necessary areas within the DDM’s QMS.

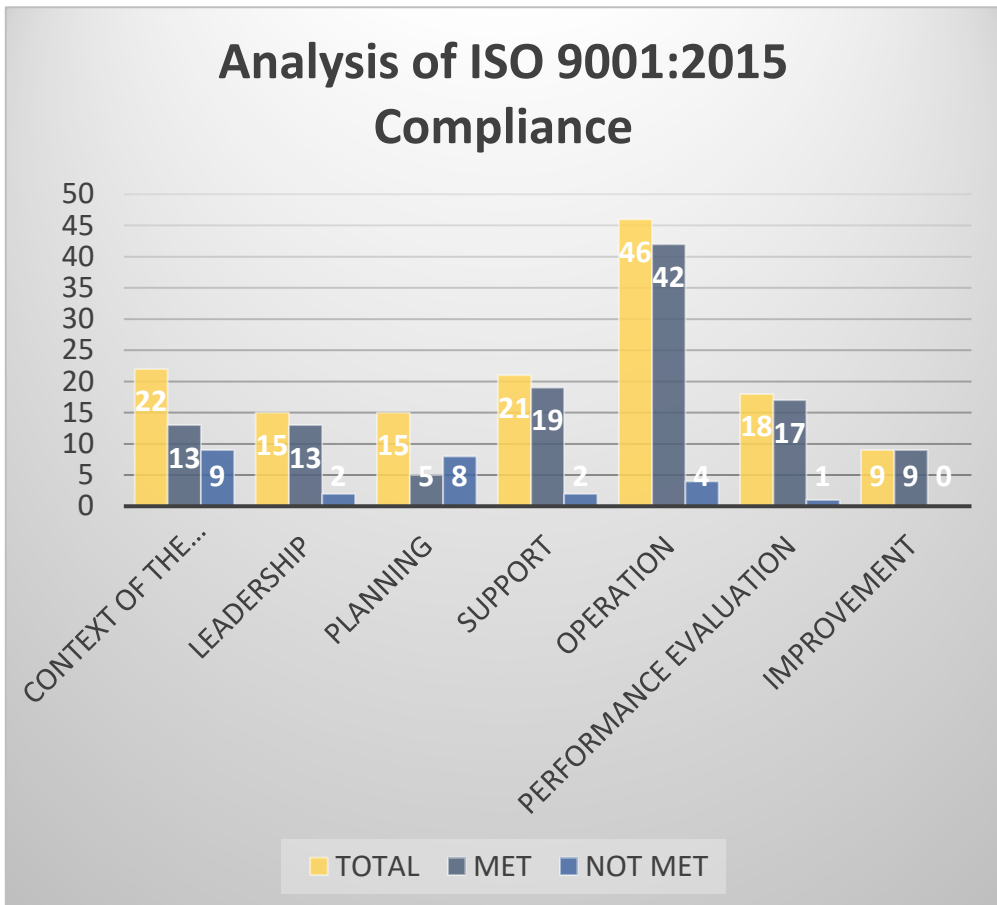
Gap Analysis: A thorough gap analysis was conducted to evaluate the organization’s current state against ISO 9001:2015 requirements. This approach aimed to identify deficiencies early in the process, prioritize resource allocation, and streamline actions needed to meet certification standards efficiently.



The first two stages of the Blanchard & Fabrycky SE Vee Model, as applied by the Capstone Team.

Results & Their Impact

Findings: An analysis revealed that the DDM’s QMS complies with approximately 82% of ISO 9001:2015 requirements, showcasing strengths in leadership, support, and continuous improvement. However, areas requiring improvement include documentation practices, planning, and risk assessment, which currently hinder full compliance.



Comparison of total requirements, met requirements, and unmet requirements across the seven ISO 9001:2015 topic areas.

Impact: Achieving ISO 9001 certification will enhance the reputation of both the DDM and NPS by reinforcing their commitment to delivering world-class education for future leaders from around the world, ensuring continuous improvement in quality and operational excellence.

Line Number	Gap Analysis Question	ISO Clause (req. No.)	Req. Description	Status: Met or Not Met?	Referenced Document and Citation
Topic Area #1 - Context of the Organization					
1	Have all that are relevant to your organization's purpose and the achievement of the customer satisfaction and the organization's strategic direction been determined?	4.1	The organization shall identify all external issues relevant to its strategic direction and customer satisfaction.	Not Met	NPS President's 2024 Intent - Get Real, Get Even Better (p. 1-3); Identifies areas of focus that impacts the strategic vision for NPS and stakeholders. The areas discussed include people, funding, and assessing "internal and external" mission related requirements. DDM's policy: DDM Policy Statement 2024-002 Assurance of Learning (p.2) aims to bring external advisors to discuss "external perspective on trends and challenges". However, the policy lacks details on the specific process or tools to capture and implement the goal of identifying external issues. Recommend business rules and a formal policy signed and implemented.
		1.1	The organization shall identify all internal issues relevant to its strategic direction and customer satisfaction.	Not Met	A repository that list all NPS or DDM internal issues has not been provided. Recommend a dash board or internal process to track and report statuses. There has been many third-party documents highlight current issues however, the CAPSTONE team has not been provided a method to assess if the issues are resolved. Recommend an issue log started to capture and monitor statuses of the issues.
		1.2	The organization shall document and review these issues	Not Met	
		1.3	regularly.	Met	The DDM Program Assessment Policy discusses integrating assessment findings into continuous program improvement on a quarterly basis to include key roles of faculty members.

Sample of ISO 9001:2015 RTM used by the Capstone Team

