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Profession Introduction, Competency, and Collaboration



About QAI Global Institute

- Founded in 1980 to provide leadership in advancement of IT quality principles and practices
- Network of 60 global chapters
- 13 professional certifications that are ISO 17024 compliant with over 200,000 individuals certified
- 38,000 certified IT quality and testing professionals in 43 countries
- Common body of knowledge for the *Certified Software Quality Analyst (CSQA)*® in 1985 and *Certified Software Tester (CSTE)*® in 1992
- Three levels of professional certification – foundation, practitioner, and manager

QAI Definition of QA/QC

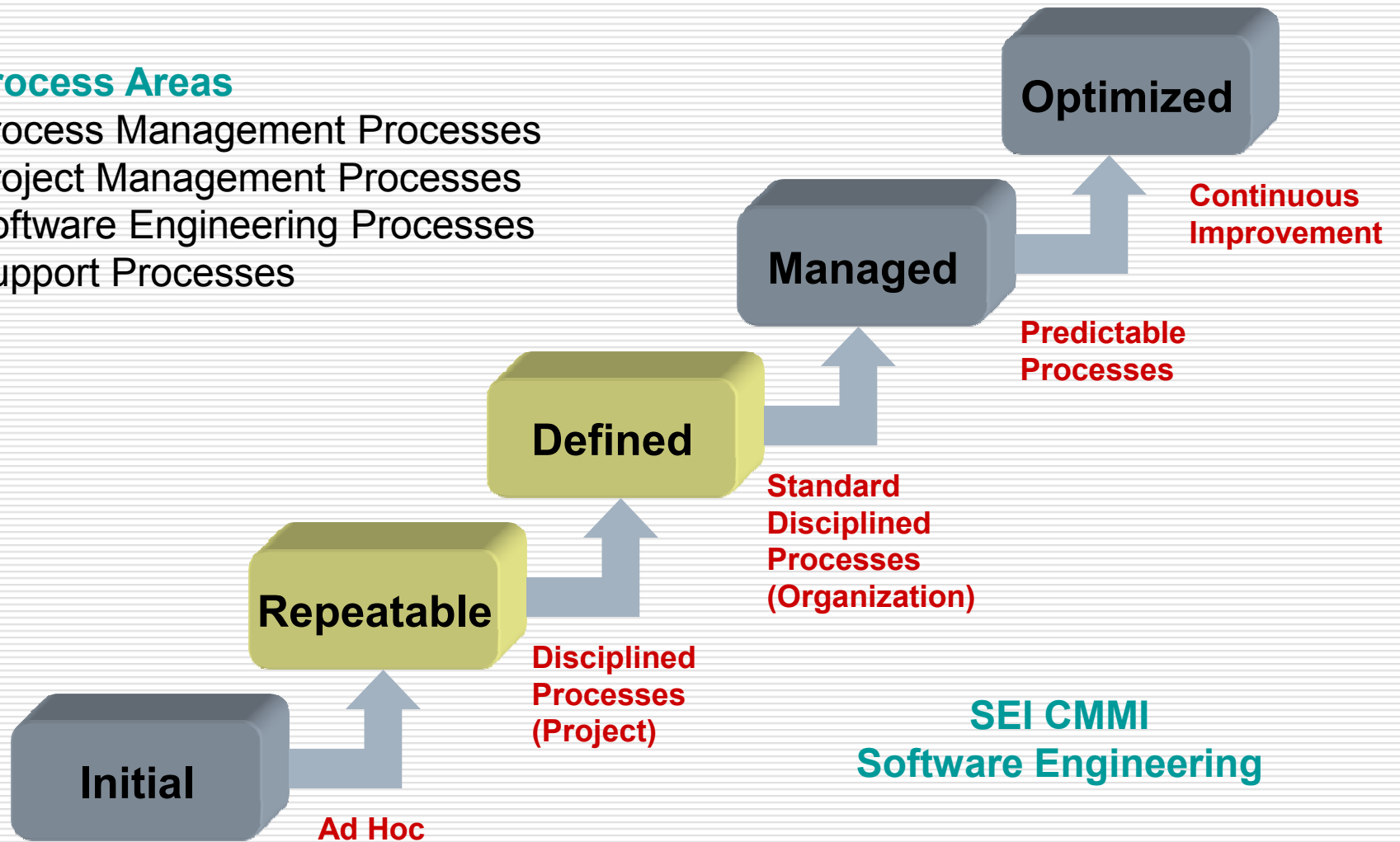
Quality Assurance (QA) is a professional competency whose focus is directed at critical **processes** used to build products and services. The profession is charged with the responsibility for tactical process improvement initiatives for **defect prevention** that are strategically aligned to the goals of the organization.

Quality Control (QC) is defined as the processes and methods used to compare **product** quality to requirements and applicable standards, and the action taken when a nonconformance is detected. QC uses reviews and testing to focus on **defect detection** and correction before shipment of products.

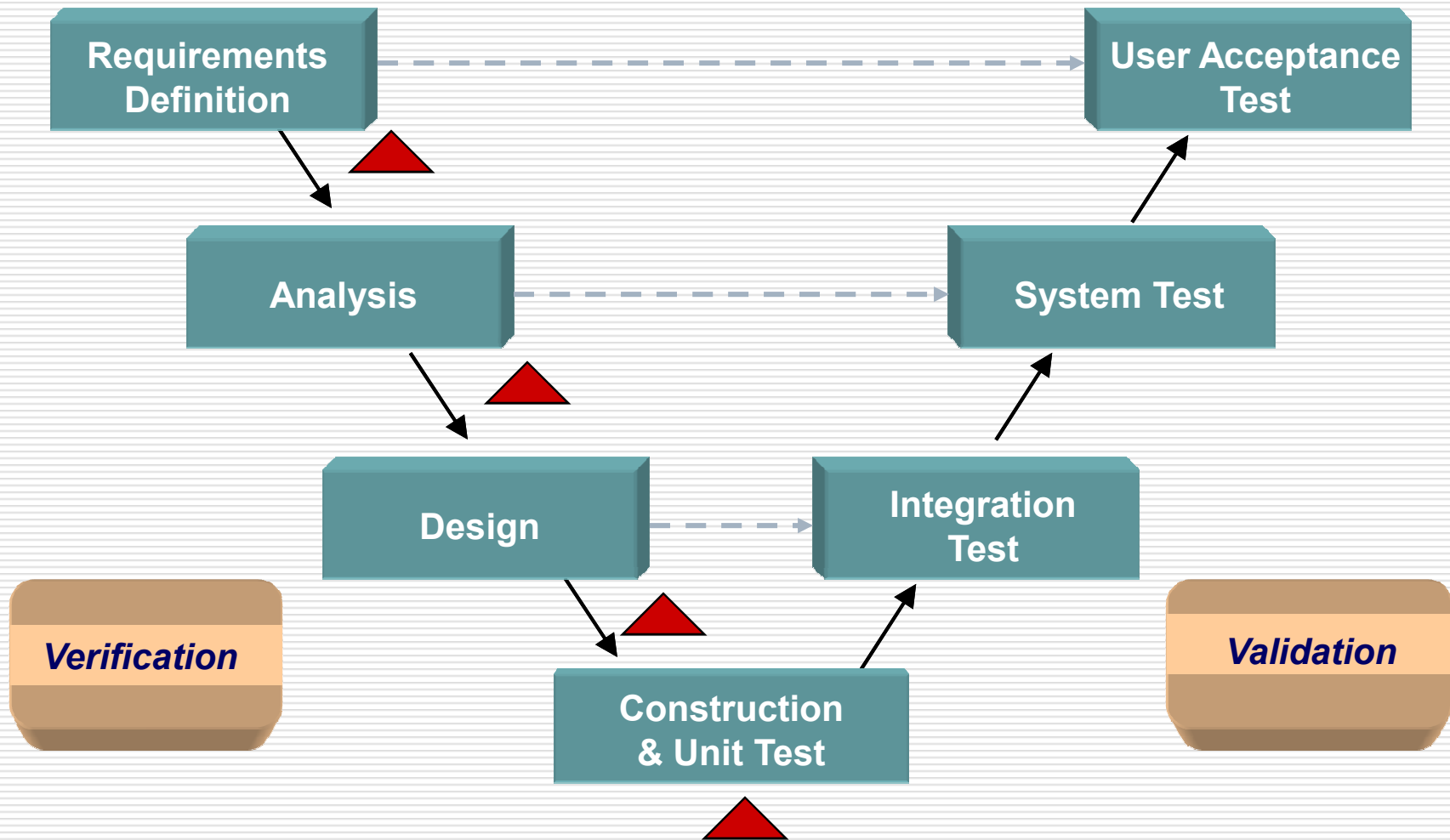
Process Capability Focus (QA)

Process Areas

Process Management Processes
Project Management Processes
Software Engineering Processes
Support Processes



Verification & Validation (QC)



Common Bodies of Knowledge (CBOK)

Certified Software Quality Analyst

- Quality Principles & Concepts
- Quality Leadership
- Quality Baselines
- Quality Assurance
- Quality Planning
- Process Management
- Quality Control
- Measurement
- Internal Control and Security
- Outsourcing, COTS, and Contracted Quality

Certified Software Tester

- Testing Principles & Concepts
- Test Environment
- Test Project Management
- Test Planning
- Test Design
- Test Reporting
- User Acceptance Testing
- Testing New Technologies
- Controls and Security Testing
- Contracted Software Testing

How Quality Analysts/Testers collaborate with other disciplines

Tactical

- Early detection and correction of defects
- Reporting on quality

Strategic

- Quality leadership and strategy aligned with business and IT goals
- Advocate of quality in balancing the time, cost, quality triangle

Project

- Project quality plan for QA/QC activities
- Testable and traceable requirements
- Business risk-based approach to testing

Non-Project

- Continuous process improvement of software lifecycle and related processes
- Measurement and analysis focused on defect prevention and rework reduction



Certifications, Chapters, and Career



Software Testing Certifications



Foundation Level

- Testers
- Software Developers
- System Analysts
- Entry Engineers

- 3 or 4 year degree
- 2 year degree and 1 year in IT
- 3 years experience in IT

- Awareness of Testing Principles
- Knowledge of Testing Function
- Aligned with QAI CBOK

- 1.5 Hour Examination
- Two Parts -- 45 minutes each
- Multiple Choice Questions
- Score 75% on each part to pass

\$200



Practitioner Level

- Test Engineers
- Test Architects
- Design Analysts
- Test Leads

- 4 year degree and 2 years in IT
- 3 year degree and 3 years in IT
- 2 year degree and 4 years in IT
- 6 years experience in IT

- Application of Testing Principles
- Application of Testing Function
- Aligned with QAI CBOK

- 4.0 Hour Examination
- Two Parts -- 75 minutes each
- Two Parts -- 45 minutes each
- Multiple Choice + Essays
- Score 75% on each part to pass

\$350



Manager Level

- Test Managers
- Test Leads
- Architects
- Project Managers

- 4 year degree and 2 years in IT
- 3 year degree and 3 years in IT
- 2 year degree and 4 years in IT
- 8 years experience in IT
- Active CSTE Certification

- Application of Testing Principles
- Management of Testing Function
- Aligned with QAI CBOK

- Real World Experience Written Documentation
- Four Part Written Examination

\$600

Software Quality Certifications



Foundation Level

- Testers
- Software Developers
- System Analysts
- Entry Process Engineers

- 3 or 4 year degree
- 2 year degree and 1 year in IT
- 3 years experience in IT

- Awareness of Quality Principles
- Awareness of Quality Function
- Aligned with QAI CBOK

- 1.5 Hour Examination
- Two Parts -- 45 minutes each
- Multiple Choice Questions
- Score 75% on each part to pass

\$200



Practitioner Level

- Experienced Quality Analyst
- SQA Team Members
- SEPG Team Members
- Team Leads

- 4 year degree and 2 years in IT
- 3 year degree and 3 years in IT
- 2 year degree and 4 years in IT
- 6 years experience in IT

- Application of Quality Principles
- Application of Quality Function
- Aligned with QAI CBOK

- 4.0 Hour Examination
- Two Parts -- 75 minutes each
- Two Parts -- 45 minutes each
- Multiple Choice + Essays
- Score 75% on each part to pass

\$350



Manager Level

- SQA Leads
- SEPG Managers
- SEPG Lead Project Manager
- Process Managers

- 4 year degree and 2 years in IT
- 3 year degree and 3 years in IT
- 2 year degree and 4 years in IT
- 8 years experience in IT
- Active CSTE Certification

- Practice of Quality Principles
- Management of Quality Function
- Aligned with QAI CBOK

- Real World Experience Written Documentation
- Four Part Written Examination

\$600

Recertification – 120 CPEs/3 Years

Education	Attended a Conference	40 CPE max
	Attended a course, seminar, tutorial	30 CPE max
	Read a book	5 CPE
	Read a journal / magazine article	1 CPE
	Complete a formal self-study course	5 CPE
	Participate in a formal study group	10 CPE
Publishing/Teaching	Present at a conference	2 CPE
	Taught a course, seminar, tutorial	30 CPE max
	Authored a published book	60 CPE
	Authored a published article	5 CPE
	Authored a published course	30 CPE
	Led a formal study group	10 CPE
Professional Experience	Contributed to a Professional Organization	10 CPE
	Learned a software tool	5 CPE
	Lead a major process/program change	20 CPE

Chicago Quality Assurance Association

- Formed in 1984 and second oldest QAI Chapter
- Monthly educational opportunities
 - Afternoon speaker programs
 - Downtown lunch & learn series
 - Spring and fall dinner programs
 - Live webinars
- Events held around suburban and downtown locations
- Topics focus on enablers of software quality – not just testing
- Hold certification preparation classes and study groups
- Hosting chapter for the North America Quality Engineered Software and Testing Conference (QUEST) in 2008 and 2009 in Chicago
- Sponsorship program and job search program

Future of QA/QC

- “The Dawn of Dynamic Software Quality Assurance” – Forrester Research, Inc., February 2009
- Shift from ‘Test-in Quality’ (QC) to ‘Build-in Quality’ (QA) with integrated quality processes
- Expanded view of quality attributes to ‘abilities’ such as maintainability, usability, accessibility, recoverability, portability, etc.
- Growing Opportunities: Test Automation, Performance Testing, Security Testing, Architecture Testing, Agile Testing, Mobile Apps Testing