

ASQ Certification

The Basics and Benefits



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- What is certification?
 - What are benefits of certification?
 - Certification history
 - Certification programs
 - **EXAM DEVELOPMENT PROCESS**
 - Recertification
 - Exam stats
 - Questions?

What is ASQ Certification?

ASQ certification is formal recognition by ASQ that an individual has demonstrated proficiency in, and comprehension of, a specified Body of Knowledge at a point in time.

ASQ Certification is

- Internationally accepted and recognized
- Recognition as a symbol of excellence, for more than 40 years
- Endorsed by over 125 corporations

ASQ Certification is also

- A marketplace requirement
- Peer recognition
- Personal validation

Key Benefits of Certification for Members

- Acquire new skills and upgrade proficiency
- Have an additional source of professional and personal pride
- Invest in their careers

Key Benefits of Certification For Employers

- A mark of technical excellence
- Currency with emerging technologies
- Knowledgeable employees -- better able to assure product and service quality

Key Benefits of Certification to Organizations

- An investment in the company's future
- Perfecting and sharing new techniques in the workplace
- A discriminator in the marketplace

Value of Membership

Certification has been rated one of the top three most-valued benefits of ASQ membership since 1991.

History of Certification

- Certified Quality Engineer 1968
- Certified Quality Technician 1970
- Certified Reliability Engineer 1972
- Certified Mechanical Inspector 1984
- Certified Quality Auditor 1987
- Certified Manager of Quality 1995

History of Certification

- Certified Software Quality Engineer 1996
- Certified Hazard Analysis and Critical Control Point (HACCP) Auditor 1999
- Certified Quality Improvement Associate 2000
- Six Sigma Black Belt 2001
- CQA-Biomedical 2002
- Certified Calibration Technician 2003

History of Certification

- Certified Quality Process Analyst 2005
- Certified Six Sigma Green Belt 2006
- Certified Pharmaceutical GMP Professional 2009
- Certified Master Black Belt 2010

Certification Programs

- Quality Engineer (CQE)
 - Principles of product and service quality evaluation and control
- Quality Process Analyst (CQPA)
 - Under supervision, is involved in quality improvement projects
- Reliability Engineer (CRE)
 - Principles of performance evaluation for product/systems safety, reliability and maintainability

Certification Programs

- Quality Auditor (CQA)
 - Standards and principles of auditing, questions, evaluations, reports for quality system adequacy
- HACCP Auditor (CHA)
 - Tests applicants' knowledge of the Hazard and Critical Control Point (HACCP) standards

Certification Programs

- Quality Technician (CQT)
 - Quality problem analysis, inspection sampling plans, SPC applications
- Quality Inspector (CQI)
 - Hardware documentation, lab and calibration procedures, inspection, process performance, data collection and reports

Certification Programs

- Software Quality Engineer (CSQE)
 - Development of software processes, measurement, verification and validation, analytical methods, and quality management
- Manager of Quality/Organizational Excellence (CMQ/OE)
 - Champions process improvement initiatives, supports strategic planning and deployment initiatives

Certification Programs

- Quality Improvement Associate (CQIA)
 - Basic knowledge of quality tools and their uses and is involved in quality improvement projects
- Six Sigma Black Belt (CSSBB)
 - Designed to demonstrate competency in the use of Six Sigma methodologies

Certification Programs

- Biomedical Auditor (CBA)
 - Understands the principles of standards, regulations, directives and guidance for auditing a biomedical system
- Calibration Technician (CCT)
 - Tests, calibrates, maintains, and repairs electrical, mechanical, electromechanical, analytical, and electronic measuring, recording, and indicating instruments and equipment for conformance to established standards

Certification Programs

- Six Sigma Green Belt (CSSGB)
 - A paraprofessional, working with process development and documentation, collects and summarizes data, creates and interprets multi-vari studies
- Pharmaceutical GMP Professional (CPGP)
 - A professional who understands the GMP principles as regulated and guided by national and international agencies for the pharmaceutical industry

Initial Activities & Preliminary Steps

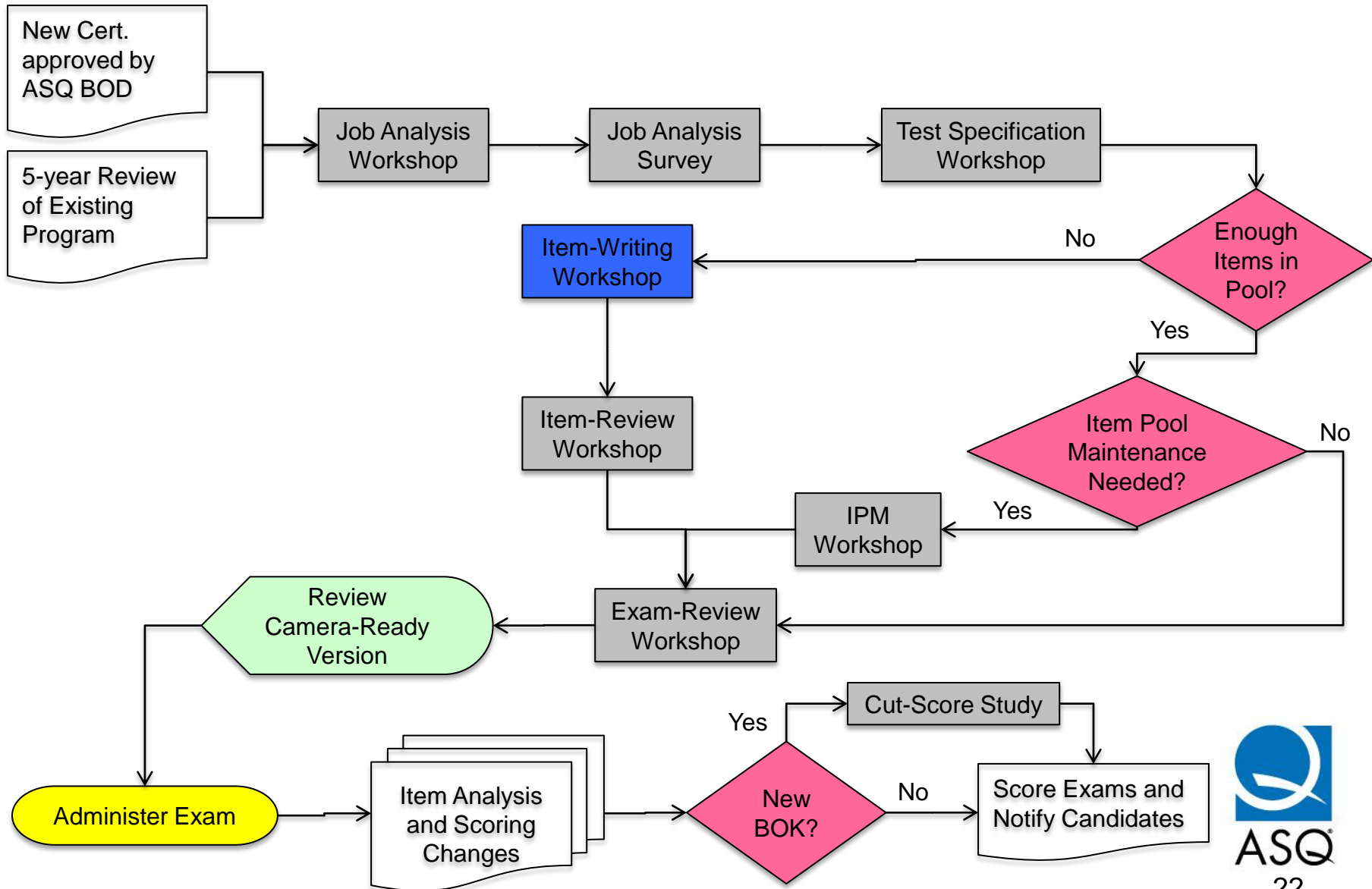
- A Division comes forward with an idea for a certification program.
 - Obtains approval of the concept from the Certification Board
 - Conducts a marketing study to determine potential market
 - Contracts with outside measurement expert to conduct job analysis

ASQ CERTIFICATIONS



Exam Development Process

Steps in Test Development



Job Analysis Prep

- The Survey is developed with the help of an Outside Measurement Expert and involves
 - Literature Search
 - Subject Matter Experts
 - Advisory Committee
 - Survey Review Panel

Job Analysis Steps

- An Advisory Committee identifies
 - Typical job responsibilities (what people do on their job)
 - Knowledge base required (what people need to know in order to perform their job)

Job Analysis Steps cont'd.

Advisory committee work results in a survey that asks respondents to rate each item in the survey in terms of

Criticality (how important is this task and knowledge) and

Frequency (how often is this task performed or knowledge used)

Job Analysis Conducted

- Job Analysis Survey
 - Mailed to 2000 individuals
 - Results are summarized
 - Results are approved by sponsoring division
 - Certification Board Approval

Job Analysis Study

- A Job Analysis study is conducted every 5 years to ensure the validity of the exam programs.
- The results of the Job Analysis are used to develop the Body of Knowledge.

BOK Development

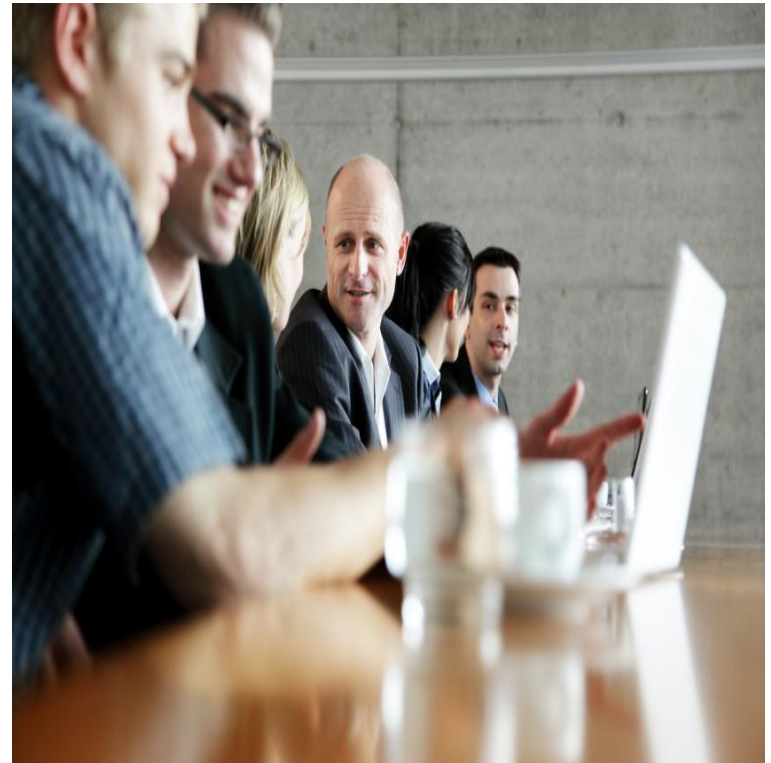
- A Body of Knowledge Committee
 - Consists of 12-15 subject matter experts
 - Attends a two-day workshop
 - Primary task is to translate the job analysis results into meaningful categories that can be tested

BOK Committee

The BOK Committee determines the number of questions in each area of the BOK, based on the importance of the topic, as well as the depth of testable material.

Item Writing

- 16 subject matter experts are trained in item writing.
- Items are written for each area of the Body of Knowledge.
- 250+ items are developed during 2 day session.



Item Review

- One 2-day workshop per year
- 12 subject matter experts review each question for
 - Accuracy
 - Clarity
 - Appropriateness
 - Diversity



Exam Review

- 12 subject matter experts actually take each exam before its first, formal administration.
- Every item on the exam is reviewed once more.
- The flow of the entire exam is reviewed.



Volunteering



- More than 50 volunteers participate in the development of each exam.

Opportunities to Participate in Workshops

- Item Writing - Write exam questions
- Item Review - Review the questions
- Exam Review - Take an actual exam and score it before it is officially administered

Selection Criteria for Volunteers

- Good team and communication skills
- Exam teams are chosen with a mix of new and experienced volunteers
- Cannot be teaching or authoring exam review materials

Benefits of Volunteering

- 1 recertification unit per day of workshop volunteering
- Reimbursement for expenses
- Visit ASQ HQ and meet Certification staff

Benefits of Volunteering

- Peer Networking
- Reinforce and expand subject knowledge
- Learn New Techniques from other Professionals

How to Volunteer

- Contact the Certification Office at ASQ HQ 1-800-248-1946
or
- Contact the Division Liaison responsible for a specific certification

RECERTIFICATION

Recertification verifies that you have maintained the same knowledge level you demonstrated when you originally passed the exam.

Who Has to Recertify?

CMQ/OE

CQE

CQA

CRE

CSQE

SSBB

CHA

CBA

CPGP

LSSBB

CMBB

CCT

RECERTIFICATION

It's Easier
Than You
Think!

RECERTIFICATION

In a recent survey of people who had recertified, 96% said that the recertification program is understandable, and very easy to use.

Recertification Requirements

- **18 credits over three years**
- **Credits are earned through**
 - Employment
 - Professional Development
 - Education
 - Society Involvement

Only 18 RU credits - over 3 years!!

- **Employment**
- **Professional Development**

Seminars

Workshops

Conferences

Only 18 RU credits are needed over a 3-year period.

- **Instructor**

- Company, internal instructing
- College, university instructing
- ASQ exam refresher course
instructing

Any instructing must be above and beyond your regular job duties and requirements in order to qualify.

Only 18 RU credits are needed over a 3-year period!!

- **Education**

- Company-sponsored in-house courses (computer skills, team building, etc.)
- University/college courses
- ASQ-sponsored courses

Only 18 RU credits are needed over a 3-year period!!

- **Society Involvement**
 - Exam Proctor
 - Meeting/workshop attendance
 - Committee member
 - Officer (national, division, section)

Just see how simple!!

- Full-time employment 10.8 RUs
- AQC attendance (once) 3.0 RUs
- Company-sponsored training (e.g., project management, Diversity in the Workplace) 4.0 RUs
- Section Meetings (3 meetings/year) 2.7 RUs
20.5 RUs

RECERTIFICATION

**CALL ASQ AT
(800)-248-1946**

or

**Visit us at
www.asq.org**

Exam Stats

Growth as a result of

➤ Translated exams

- Spanish - CQE, CQA, CQT, CQI, CQIA, CQPA, CCT, SSBB, SSGB
- Japanese - CSQE, CQE
- Mandarin - Manager, CQE, SSBB, CQIA
- Korean - CRE, CQE
- Portuguese - CQE