



# Top Mistakes to Avoid When Taking an ASQ Certification Exam

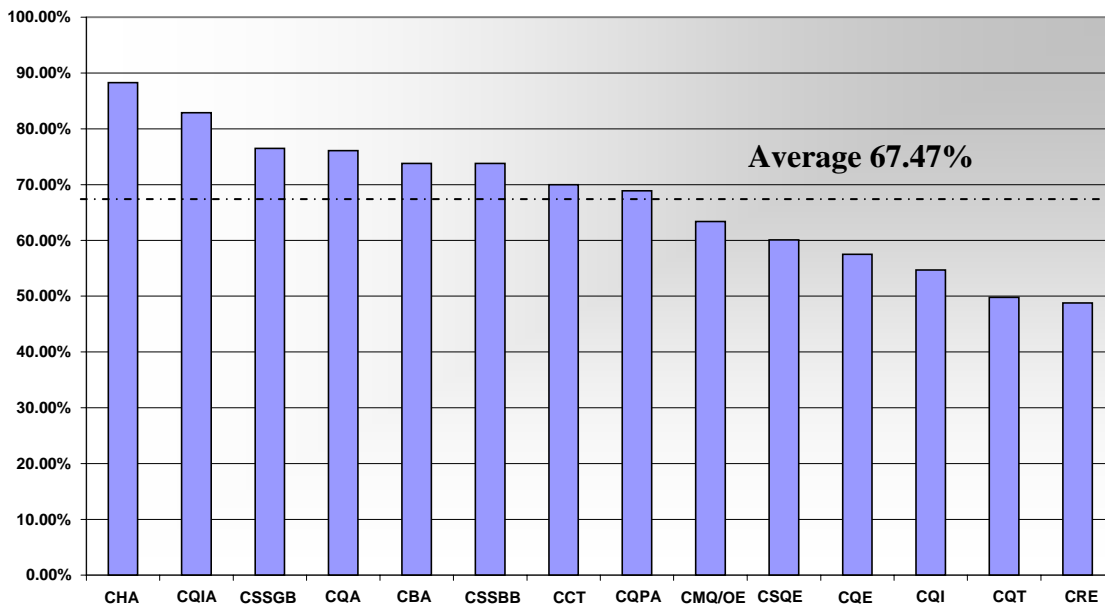
by [Govindarajan \(Govind\) Ramu](#)

In 2007, 14,422 people sat for an American Society for Quality (ASQ) certification exam. Whether by careful preparation, exceptional test-taking skills, a bit of luck, or some combination, 9,431 of these people, or 65%, succeeded. The year before, the percentage was the same: of 13,556 people who sat for certification exams, 8,846 passed, or 65%.

For a little more perspective, figure 1 offers a look at the pass rates for ASQ's fourteen certifications. To ensure that certifications remain relevant and up to date, ASQ revises each body of knowledge (BoK) every five years; therefore, the rate for each certification in figure 1 is calculated based on data accumulated since the BoK was last revised.

**Fig. 1 Pass Rate by ASQ Certification**

Certification pass rates since last BoK change or certification inception, covering 5 years of data or more. Data from special administrations of exams are excluded from calculations.



How can you avoid being part of the 35%—perhaps more, perhaps less—who will not pass their certification exams this year?

From my own experiences in earning six ASQ certifications, I have learned first-hand what many of the pitfalls are, as well as some strategies for avoiding them. Additionally, I have taught certification refresher courses, moderate certification topic discussion boards, and have participated in ASQ's development process workshop for four certifications. Having been on both sides of the process, developing exams and taking exams, I have identified some of the most common errors that test-takers make. I have tried to offer a comprehensive listing here, separating them into three categories: planning and preparation, exam strategy, and writing on the day of the exam.

### • Planning and Preparation

- o Overconfidence
- o Not reading the body of knowledge (BoK) thoroughly
- o Lack of work experience in the BoK sections
- o Not understanding the cognitive level for each BoK section
- o Not aware of appropriate (authentic) reference materials
- o Unaware of exam practice aids such as primers and simulated exams
- o Poor time management during preparation
- o Missing the application deadline
- o Rescheduling the exam due to a non-emergency reason

### • Strategy for Exam Writing

- o Mindset to barely pass, thinking of the cutoff score
- o Not knowing weaknesses and strengths prior to the exam date
- o Not having practiced and timed adequately using simulated exams
- o Not practicing writing with pencil (specific to CMQ/OE constructive response)
- o Selecting the wrong open-book materials
- o Failing to organize open-book materials
- o Not getting adequate rest the night prior to the exam
- o Not assessing the travel distance, traffic, roadwork, and other obstructions that may cause stress
- o Not knowing the exam hall location in a huge campus area

### • Exam Writing

- o Lack of confidence
- o Distractions during exam writing, such as noise from construction or traffic
- o Forgetting reference books, stationery, and dictionary

- o Using a calculator that is different from the one you used for practice
- o Not reading the questions properly with the emphasis on keywords
- o Not following the 30-60-90 seconds rule
- o Referring to open books for almost all questions
- o Not enough time for revisions
- o Too many changes to previous answers during revisions

Of course, awareness of common mistakes is just one part of the battle. I hope the discussion that follows will help you begin to understand the reasons these mistakes happen and offer you some practical suggestions for countering them.

If enough of us pay closer attention to avoiding the top mistakes made, perhaps more of us will end up on the right side of the pass/fail bar.

### **Lack of Planning and Preparation**

#### **Overconfidence:**

One of the major reasons for high failure rates in ASQ certifications is overconfidence. Working in the quality profession for a long period of time can lead some professionals to assume that their practical experience automatically gives them the knowledge they need to ace a certification exam.

The bodies of knowledge are very wide in many cases. After all, they are constructed based on an extensive analysis of a wide sample of representative jobs. Chances are slim that the regular duties of any single job cover the entire width of a BoK. Besides, many of us have not written an exam since graduation from school. Trying to answer the exam questions based on experience alone and within the time limit is a big challenge. Do not underestimate the amount of planning and preparation required to pass the exam, no matter how much work experience you have.

#### **Not reading the body of knowledge (BoK) thoroughly:**

An important first step is to read the body of knowledge carefully before planning for the exam. Highlight every keyword and tool mentioned in the BoK, and ensure that you have adequate reference materials.

Other than ASQ Quality Press certification-specific handbooks or exam primers, you will not easily find one book that covers every aspect of the BoK. However, keep in mind that the handbooks and primers are intended to offer breadth more than depth. Extended reading in many subsections

may be required. For each certification, you can find a list of references and resources for further reading on the ASQ Web site. See [ASQ Preparations](#) Select any certification and click on the “references” link.

### **Lack of work experience in the BoK sections:**

Most ASQ certifications require experience covering one or more body of knowledge sections. As stated previously, any one job description will not cover every section of a certification BoK. Even if it did, in our day-to-day responsibilities very few of us work on every area of a BoK on a regular basis. We use some areas much less frequently than others. The ability to apply “book knowledge” to a given particular situation is the design of the exam questions. Specifically, those sections that are labeled with the cognitive levels of “apply,” “analyze,” “evaluate,” and “create” will be easier for you to address if you can apply your learning to particular situations.

### **Not understanding the cognitive level for each BoK section:**

Exam takers often ignore the cognitive level specified for each section of the BoK. Paying close attention to the cognitive levels will help you determine how extensive your planning and preparation for each section should be. Sections that require higher cognitive levels will require more in-depth preparation. For instance, when you see “apply,” you can expect to see questions that contain specific examples. You should be prepared to demonstrate an understanding of when and how you would use ideas, procedures, methods, formulas, concepts, and tools in the context of those examples. Similarly, when you see “analyze,” expect to see questions that will require you to break information down into constituent parts, identify relationships and patterns of organization, and derive the most significant and usable information from a given situation or set of data.

### **Not aware of appropriate (authentic) reference materials:**

Perhaps the question that appears most frequently in the ASQ discussion board on certification is a request for help in selecting and evaluating reference materials. There are so many materials out in the market covering each body of knowledge, including a long list of references specified by ASQ on its certification pages. However it is not practical or economical to purchase so many books.

ASQ Quality Press certification handbooks are the best places to start. Currently, the only certifications for which a handbook is not available are Software Quality Engineer (CSQE), Reliability Engineer (CRE), and Quality Inspector (CQI). By the end of 2008, Quality Press will have a handbook available for every certification exam.

For those who need some additional assistance, exam-specific primers and CDs are also available from other reputed service providers. I would caution, however, that you should consider neither the handbooks nor the primers your only certification reference. They will not cover every little aspect of the BoK in the depth that is required. As an examinee, you will have to take responsibility for determining which additional references you will need to complement your own knowledge and experience.

### **Not aware of exam practice aids such as primers and simulated exams:**

Exam preparation materials like primers and simulated exams are very helpful for mastering the art of test taking. Certification exam candidates may have vast knowledge of the subject matter and substantial work experience. However, primers help to provide concise coverage of material under every BoK subsection, and simulated exams help to provide real-time examination experience that will help you learn to stay focused and manage your time. Particularly useful features of simulated exams are rationales for missed questions and scoring by sections (performance graphs). If you find through these exams that there are specific areas where you need additional study, go to a more specialized text.

### **Poor time management during preparation:**

Unless you know your own strengths and areas for improvement, you will likely spend too much time on concepts and skills where you really don't need to prepare quite as much, keeping yourself from becoming fully aware of the risk of missing questions related to your weaknesses. Again, simulated exams from a CD or online are great ways to kick-start exam preparation. A good approach is to take a simulated exam to assess your strengths and weaknesses and set up a preparation strategy based on the results.

### **Missing the application deadline:**

Deadlines are not trivial. ASQ typically extends an application deadline once, and after that the date is final. I have seen many applicants talk about taking an exam, then forget to actually apply, having to wait another six months for the next opportunity. Since ASQ allows you to apply for exams in advance, it is better to apply once you have made your decision. This will keep your mind from wavering and ensure that you stay committed to writing the exam.

### **Rescheduling the exam due to a non-emergency reason:**

As a result of improper planning and preparation, some exam takers wait until the week before the exam date and finally call ASQ to postpone. Anyone who postpones an exam for a non-emergency reason is likely to continue to postpone again and again, finally giving up. Psychological

reasons like fear of failure can also lead to rescheduling. Careful planning and preparation can help overcome this fear.

### **Lack of Strategy for Exam Writing**

#### **Mindset to barely pass, thinking of the cutoff score:**

ASQ errs on the side of type I error rather than type II error. This means that if you score very close to the cutoff score on the higher side, there is still a possibility of failing the exam. The best approach is to set out to score much better than the cutoff score. Although exact cutoff scores are confidential, my experiences with the process lead me to believe that they would not be as high as 85%. To avoid becoming the victim of type I error, plan to score as high as you can.

#### **Not knowing your weakness and strengths prior to the exam date:**

As mentioned earlier, preparation aids like simulated exams and question banks can help you identify strong and weak areas during preparation. This also means that you will be able to budget more exam writing time for weaker areas.

#### **Not having practiced and timed adequately using simulated exams:**

It is not only important to answer questions correctly, but it is also important to use the duration of the exam time wisely. Ideally, you would complete the exam within 75 - 80% of the allotted time, using the balance for reviewing your answers. As part of my own test-taking strategy, to ensure ample practice, I used to take eight simulated exams and then before the exam complete one final review of all of the questions included in my chosen exam practice aids.\*

#### **Not practicing writing with pencil (specific to CMQ/OE constructive response):**

In our word processor world, most of us have not used a paper and pencil and written a full page of text in more than 10 years. Imagine trying this lost skill on the exam day when you have to answer two constructive response

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\* Various reputed vendors of certification preparation material offer large volumes of practice questions and other features designed to simulate the exam experience. However, it should be noted that the authors of handbooks, primers, and other materials with sample questions do not have access to the actual questions used in ASQ certification exams. Practice questions are for practice only; they will differ from ASQ exam questions. Also please note that sample exams from external vendors may not be as extensively peer-reviewed as the actual ASQ exam questions. You may find practice questions for which you don't quite agree with the answer or rationale.

questions back to back in 45 minutes for two pages long. Not a good idea. Your fingers will tire too soon. Certified Manager of Quality/Organizational Excellence (CMQ/OE) exam takers are advised to practice writing eight to 10 constructive responses during their preparation using pencil to regain legibility and speed.

### **Selecting the wrong open-book materials:**

There is no limit to how many books you can take with you to the exam. Some examinees walk in with a pencil and eraser. Others bring a two-level cart filled with reference books.

The only books not allowed by ASQ during the exam are resources containing a question-and-answer format. This means that you may be prevented even from using textbooks that have question-and-answer sections. Try not to rely on open books too much, as your exam proctor could strictly interpret the policy and disallow some of the materials you bring. It is very unlikely that any book will contain direct answers to questions from the exam anyway. In my experience taking six certification exams, which translates to a total of 900 questions answered, I have only encountered three questions that came right out of a book.

The exam questions are created to require application of both knowledge and experience. One suggestion is to pick two or three reference books from the list provided for the specific exam, and use those same books for both preparation and the exam as well. You will build a strong familiarity with the format of the material, and searching for the information you need during the exam will take only seconds.

### **Failing to organize open-book materials:**

Choosing reference books with appendices covering all of the required statistical tables and a glossary for the BoK is advisable, but do not underestimate the importance of doing some of your own work to make your reference materials more easily accessible. Compiling a list of relevant references like formulas, statistical tables, sampling plan tables, and key terms and definitions is worthwhile, as is cross-referencing the key words on your list with page numbers from the corresponding books that you will use during the exam. Finally, bookmark important pages that contain tables, graphs, example calculations, and key definitions.

### **Not getting adequate rest the night prior to the exam:**

If you have not invested enough preparation time in the three to four months prior to taking the exam, it is highly unlikely that last-minute late-night studying will make any difference. At the same time, if you have prepared



well you could do significant damage to your concentration by not getting a good night's sleep.

### **Not assessing travel distance, traffic, roadwork, and other obstructions that may cause stress:**

Notification of acceptance of your exam application will specify the exam venue. Many of us would typically assume that if we have the address we can simply drive to the venue. However, you could be faced with one of those days when the city decides to repair the roads or perform other maintenance. If you are unfamiliar with the exam location, it is strongly suggested that you take a test drive the day before to familiarize yourself with the route and identify any potential issues that could require rerouting to your exam location. Checking your weather forecast the night before to determine if you need to plan extra time for your trip or bring an umbrella along can also help minimize last-minute sources of stress.

### **Not knowing the exam hall location in a huge campus area:**

Just as you will want to practice your route to the exam site, you should do your best to locate the actual examination room ahead of time. Unfortunately, in many situations it will not be possible to walk into the exam location and familiarize yourself with the room prior to exam day. For instance, some exams occur in conference rooms and training rooms of organizations that require security access. Some exam rooms are located deep inside a campus building that in itself requires a map and directions. At the very least, you should arrive at the exam location well ahead of your scheduled start time and locate the room assigned for writing the exam. Talk to the section exam proctor prior to the exam to learn exactly where the room is located within the campus.

## **Exam Writing**

### **Lack of confidence:**

Lacking confidence on the day of the exam is an opposite situation to the overconfidence discussed earlier in this article. The day of the exam is the time for you to have all the confidence you possibly can. Lack of confidence can result in second-guessing throughout the exam and affect the outcome. Knowing that you have completed many simulated exams, as mentioned earlier, can improve your confidence when you finally sit down to take the exam.

### **Distractions during exam writing, such as noise from construction or traffic:**

I have faced certification exam situations where building renovations were happening just outside the room, causing lots of noise and other distractions.



Some exam rooms are closer to a highway or expressway than you might be used to. Hearing the hum of traffic and car horns honking could interrupt your focus on the exam. These are rare situations, but you don't want to have to blame street noise and building renovations for not passing the exam. I recommend bringing earplugs as a contingency.

### **Forgetting reference books, stationery, and dictionary:**

After carefully preparing your open-book materials and planning for contingencies, you do not want to find yourself on the way to the exam only to realize that half of the items you planned to bring with you are still sitting on your kitchen table. Create a checklist of items to take with you on the day of the exam, including reference books, statistical tables, stationery, calculator, and blank paper for working out your answers.

A sample checklist accompanies this article as a starting point for you, but you should also take a moment to customize it to meet any other needs you might have during the exam. For instance, a dictionary may generally be useful for all exams for those whose first language is not English. Specifically, exams like CMQ/OE have constructive response questions, and the CQA exam involves case studies with some challenging vocabulary.

### **Using a calculator that is different from the one you used for practice:**

Firstly, make sure you consult [ASQ's calculator policy](#). Then, take the same calculator that you used during your preparation. This will save some precious time searching for functions. When you have only about a minute to spend on each question, you do not want to consume any of that time by having to stop to think, "Is this 2nd function or shift? How do I go to 'stat' mode from 'deg'? Which button is for sample standard deviation, and which one is for population standard deviation? My other calculator was different. What do I do now?"

Also double-check your calculator's display to ensure that it is not fading or falling in any way. Consider replacing your battery before the exam or even buying another identical calculator to have as a backup. Avoiding the potential for added anxiety may be worth the small expense of a new calculator.

### **Not reading the questions properly with the emphasis on keywords:**

As early as the preparation stage, you can begin to work on understanding sample questions and start the practice of underlining keywords in the questions. This underlining technique helps you focus carefully on the keywords and block out extraneous words. Multiple choice answers typically involve one distracter, two plausible answers, and one best answer (key).

The best answer and one of the plausible answers are likely to be closer, and selecting the best one will require knowledge and experience.

### **Not following the 30-60-90 seconds rule:**

A tip that many exam takers use successfully is the 30-60-90 seconds rule. The idea is to attempt questions one by one, answering first all of those that you can deal with quickly.

On your first round through the exam, answer all of the 30-second questions. If you will need more than 30 seconds to figure out an answer, move to the next question. Once all the 30-second questions are answered, use the same approach to answer all 60-second questions. The following round is for questions that will take 90 seconds. Finally, address the questions that take about two minutes or longer to answer.

Based on my own experience, about 30% of the questions should be answered within 30 seconds or less, about 50% of the questions should be answered within 1 minute or less, 15% of the questions within 1.5 minutes or less, and the remaining 5% may take anywhere from two to four minutes per question. This approach should total approximately 2.5 hours, leaving a clear hour and a half for careful review of the entire exam.

One word of caution: While using this approach, you will be filling in your answer sheet out of sequence. Make sure you do not lose alignment between the exam questions and your answer sheet.

### **Referring to open books for almost all questions:**

Relying too much on open books during the exam is an interaction effect of lack of preparation and lack of confidence. All the points discussed here are related to each other as causes and effects.

As discussed earlier, there is no magic reference book that has answers to all ASQ exam questions one to one. Only with background knowledge, relevant experience, exam preparation, and practice can you pass the exam. Referring to open books for every question not only wastes exam time, but also will make you tired.

### **Not enough time for revisions:**

If you are not well prepared, you are taking your first certification exam, or the exam is genuinely relatively difficult, you may end up tight on time. As you fill in your initial answers, a good idea is to make an identification mark near the questions you should review. This way, in your next pass through the entire exam, you can focus on the questions you have identified before

reviewing the others. This will be very efficient in prioritizing review questions, particularly when time is short.

### **Too many changes to previous answers during revisions:**

If you take too much time to answer the exam questions, you may not have time to review your answers. On the other hand, if you are too quick, leaving plenty of time to spare, you may have time to review more than once. This is not bad. But the danger is to avoid the temptation to revise your answers too many times. When you are unsure, your first answer choice will usually be correct.

### **After the Exam**

As part of your own continuous improvement regimen, make a mental note of sections of the certification BoK you found to be more difficult as you took the exam. Irrespective of the exam outcome or any future plans you may have to take additional certification exams, strengthening these areas will help with professional development.

Along with the exam questions and the bubble sheet for your answers, your exam proctor will also provide you with a separate sheet that you can use to report ambiguous questions or errors. Make sure you take this opportunity to offer your feedback, as it may help with ASQ's scoring process and ongoing assessments and improvements to exam questions.

Finally, once you turn in your answer sheet, you have one more mistake to avoid. Do not neglect the importance and value of taking time to unwind and celebrate the accomplishment of sitting for an ASQ certification exam. Regardless of the outcome, you can be proud of the fact that you followed through on your commitment to take the exam seriously. Even before you are notified of your results, reflect on the knowledge and experience you have gained, and reward yourself for the months of preparation you invested.

### **More questions on certification exams?**

- Refer to: [ASQ's Certification Handbook](#) (member only access)
- Post your questions at: [Certification Discussion Topic](#) (Public access)

## About the Author

[Govindarajan \(Govind\) Ramu](#) is a quality manager and Six Sigma Master Black Belt for [JDS Uniphase Corporation](#). Previously, he worked at the foreman level and as an engineer, quality manager, and operations manager, performing quality related functions in different manufacturing organizations in India, Malaysia, Thailand, and Canada.

A licensed professional engineer in the province of Ontario, Canada, Ramu has a mechanical engineering degree from Bangalore University, India, and a certificate in elements of statistical quality control and operations research from the Indian Statistical Institute, Chennai. An ASQ member since 1998 and an ASQ Fellow, Ramu holds six ASQ certifications: quality manager, quality engineer, Six Sigma Black Belt, quality auditor, software quality engineer, and reliability engineer. He is also a registered QMS 2000 principal auditor from IRCA (UK).

Ramu has coauthored ASQ's [Certified Six Sigma Green Belt Handbook](#) and published articles with the ASQ Six Sigma Forum and in magazines and newsletters.

## ASQ Certification Exam Checklist

### TO EXAM LOCATION



<input type="checkbox"/>	ASQ CONFIRMATION MAIL WITH VENUE LOCATION
<input type="checkbox"/>	PICTURE ID
<input type="checkbox"/>	EXAM VENUE ROUTE MAP, DRIVING DIRECTIONS
<input type="checkbox"/>	EXAM ROOM LOCATION: ROOM #, ACCESS, SECURITY, PHONE #, ETC.
<input type="checkbox"/>	UMBRELLA, OR OTHER ITEMS BASED ON WEATHER REPORT

### ESSENTIALS



<input type="checkbox"/>	SEVERAL #2 PENCILS, SHARPENER, SCRATCH PAPER
<input type="checkbox"/>	GOOD QUALITY ERASER, WRIST WATCH
<input type="checkbox"/>	CALCULATOR (REFER TO ASQ POLICY), BACKUP CALCULATOR IF REQUIRED
<input type="checkbox"/>	2 OR 3 MAJOR REFERENCE BOOKS (BOOKMARKED)
<input type="checkbox"/>	CERTIFICATION PRIMER (BOOKMARKED) (QUESTIONS, ANSWER KEY DETACHED)

### EXAM AIDE



<input type="checkbox"/>	FORMULA LIST
<input type="checkbox"/>	STATISTICAL TABLES, SAMPLING PLANS (WHERE APPROPRIATE)
<input type="checkbox"/>	GLOSSARY, ACRONYMS, IMPORTANT DEFINITIONS
<input type="checkbox"/>	CUSTOM COMPILED CROSS-REFERENCE LIST
<input type="checkbox"/>	DICTIONARY

### MISCELLANEOUS ITEMS



<input type="checkbox"/>	COFFEE/JUICE
<input type="checkbox"/>	BOTTLED WATER
<input type="checkbox"/>	COINS FOR VENDING MACHINE
<input type="checkbox"/>	ASPIRIN (OR ANY NON-DROWSY MEDICATION)
<input type="checkbox"/>	EARPLUGS (IN CASE OF TRAFFIC NOISE OR OTHER DISTRACTIONS)

### PLANS TO UNWIND



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