

ExamLabs

CompTIA CTT+ Essentials

Study Guide

Exam TK0-201

Exam TK0-202

Exam TK0-203

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PART I

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CHAPTER 1

Preparing for the Exam

In this chapter you will:

- Learn about the CompTIA Certified Technical Trainer+ certification
- Review the objectives for the CTT+ TK0-201 computer-based examination
- Understand the objectives for the CTT+ TK0-202 classroom performance-based examination
- Examine the objectives for the CTT+ TK0-203 virtual classroom performance-based examination
- Know the testing and evaluation process to earn the CTT+ certification
- Review the costs of the examinations and CompTIA membership

If you are a technical trainer and you want to prove your experience and training abilities, and set yourself apart from other trainers, you'll be interested in the CompTIA Certified Technical Trainer+ certification. This is a certification that can show employers, clients, and students that you have experience training technical topics, that you understand how to teach, and that you've passed at least two rigorous exams testing your competence.

If you're like me, you really enjoy teaching complex topics to other people. It's rewarding to take a complicated topic, break it down to simple terms, and see people's expressions when they learn. Technology, from custom software to servers and bleeding-edge hardware, can be a demanding topic to present. But this isn't a book about presenting, and it's really not even a book about training. This is a book about how you, the expert trainer that you are, can help people learn technical topics.

While there is a connection between training and learning, there's also a distinct difference between lecturing, telling, and teaching. As a CompTIA CTT+ candidate you'll need to recognize the characteristics of a good

instructor, how people learn when you teach, and how to overcome challenges of the classroom and teaching over the Internet.

Like training, this book has goals for you. This book will:

- Cover the exam objectives in detail for the computer-based CompTIA CTT+ examination
- Help you prepare for the classroom-performance and the virtual-performance review for the CompTIA CTT+ certification process
- Offer videos to reinforce the concepts of each chapter
- Focus your efforts on passing the CompTIA CTT+ examination
- Help you become a better instructor
- Provide a review of each chapter's terminology
- Not be boring

This first chapter details the exam objectives and the complete certification process.

While it's true that anyone can pay for and take the CompTIA CTT+ examination, not just anyone can pass the exam. This test requires that you understand how to train others, manage the classroom, engage learners, and recognize different learning styles. While you can learn many of these techniques from this book, the real knowledge, the understanding of the materials, is proven through your performance-based examination. In other words, you might be good at taking tests, but if you can't teach—and prove it—you'll score poorly on the practical examination for the classroom- or web-based trainer exam.

This book will help you prepare to pass the CTT+ examination—not just take the test. You'll learn the meaty stuff the exam will test you on, how to best prepare for the exam, and how to remember loads of terms. As an instructor you might already be familiar with some of the concepts in this

book, though you'll also need to be familiar with the terminology associated with the concepts of technical training.

About the CompTIA CTT+ Essentials Exam

CompTIA is the Computing Technology Industry Association, and they're the certifying body for vendor-neutral certifications like the Project+ Professional, A+ Technician, and your next certification, the Certified Technical Trainer+. You can usually spot the CompTIA certifications because they have the "+" symbol after the designation. CompTIA certifications aren't easy, but they don't have the same prerequisites to take the exam such as proven experience or education.

The CompTIA CTT+ Essentials exam will test your knowledge of how to train adults on technical topics. This examination will challenge your knowledge of adult learning styles, classroom management techniques, and how to teach—not lecture. You'll need to be familiar with learning theories, how to create a learner-centered environment, and how to engage your learners in the materials you present. This exam will also test your instructional design comprehension to some extent and your ability to adapt, shift, and overcome challenges in the materials you're teaching from. You'll also need to be familiar with how to utilize effective class and instructor evaluations. In this book I'll coach you through all of the exam objectives. You'll be prepared to pass this exam and get back to teaching with more confidence and with your shiny, new certification.

The CompTIA CTT+ Essentials examination has 95 questions, and you'll have 90 minutes to complete the exam. The CompTIA CTT+ Essentials exam will cost you \$246, and you'll have to pay an additional \$266 for either the classroom-based or virtual classroom performance exam, depending on which recording you choose to submit. You'll register for the exam through www.comptia.org—where you can choose your local testing center and schedule the exam date. You'll need to be familiar with the five domains on the CompTIA CTT+ examination. This book will help you prepare for each of the exam objectives.

Domain 1: Planning Prior to the Course

This domain accounts for 13 percent of the exam (roughly 12 questions of the 95 test questions). You'll be tested on your experience and knowledge of how you can assess organizational needs and learners' backgrounds, and how these needs relate to the course objectives you're about to create. You'll also be tested on the modality of the training session—how you'll accomplish the goals of the training in a classroom environment, via the Web, or even in smaller coaching sessions.

Instructors need to anticipate the sections of the course material that are likely to cause confusion and questions in the classroom. By anticipating the questions, you can adjust your lecture, allow learners to learn through participation, and encourage peer learning. Instructors also will use this opportunity to plan for topics where learners may understand the material but may be resistant to the topic at hand. For example, new applications, organizational change, and new work procedures using technology are often resisted before being adopted by learners. This domain will test your ability to involve learners, overcome challenges, and to promote the needs of the organization.

Your course objectives may be determined through surveys and needs analysis, but how you teach the objectives may be adapted to each scenario. You'll need to adjust your teaching approach and learning materials to the identified learning styles, the learners' reception to the messages, and the group or situation you're training within. This includes adjusting your instructional activities to the organization, the audience, and the needs of your organization. The goal is to keep a learner-centered environment, classroom or virtual, to satisfy the needs of the organization you're teaching for.

As a CompTIA CTT+ you should also be familiar with managing the environment you're about to teach in. You'll need to coordinate with colleagues and vendors the logistics of every class: course materials, classroom computers' setup, classroom configuration, pre-course work for learners, and login information for the systems—and even physical access to the training room. Once you're done teaching, you'll need to know how you

are expected to return extra materials, reset the classroom, and secure the computers and equipment. Managing the instructional environment also includes collecting and recording enrollment and following up with the correct personnel with regard to any technical problems.

Just as you'll manage the physical environment for the promotion of learning, you'll need to do the same with a virtual environment. You'll prepare the virtual classroom by confirming the reliability and usability of the software, audio, connectivity, and learner interaction. Part of your virtual classroom management is to create and communicate a contingency plan for how you'll react when things don't go as planned. You don't want to abandon remote learners when they can't connect or when software fails in the virtual classroom.



NOTE I'll address this domain in detail in [Chapters 2](#) and [3](#). Successful training events don't happen by accident; it's the preparation, planning, and understanding of what learners need from you, the trainer, that make a successful event.

Domain 2: Methods and Media for Instructional Delivery

This domain accounts for 14 percent of the exam (approximately 13 questions). As a trainer you'll need to be experienced and versed in choosing the correct instruction methods. This means understanding the pros and cons of instructor-led training in the classroom versus web-based training for distance learning. You'll also be tested on how you should present the material to the different learning styles.

Technical courses typically follow a logical learning workflow: the instructor lectures, provides a demo of the work, and then allows the learners to complete a lab. The designers of the courses, however, may have instructional methods incorporated into the coursework that are different from what you're used to. When delivering courses, you'll always be prepared for the learners' acceptance of the delivery by understanding the

pros and cons of the instructional method—and adapting the method as appropriate.

As a CompTIA CTT+ you'll know that people, in particular adults, learn in different styles. You'll need to be able to recognize the different learning styles, such as auditory versus visual, and adapt your teaching style to bolster learners' retention and understanding. Depending on what you're teaching, either technical or nontechnical content, you'll adapt your delivery technique for what's best for the learners. This is part of keeping the training learner-centric rather than trainer-centric. You'll do this approach in the classroom and in the virtual classroom environment.

Technical trainers can also use different tools and techniques to organize the material in a classroom. This can be through comparing and contrasting different solutions, creating a demo to complete with the learners, or walking the learners through a complex activity as a group one step at a time. Your experience as a CompTIA CTT+, classroom observance, and insight into the learners' needs will help you determine what the best approach is for each scenario. Technical and nontechnical content can be taught in many different ways, but it's important to see the nonverbal communications of the learners to adapt your delivery of and approach to the message.

One of the best attributes of a trainer is the ability to “read your audience.” This is based on the learners' involvement with the activities, participation in class discussions, and even their interactions with other people in the classroom. You can monitor how learners are engaged—and promote their engagement—through questions, demonstrations, and activities in the classroom. Promoting interactions isn't all just technical know-how; anecdotes, media clips, and even humor can all be leveraged to get people involved in the classroom.



NOTE You'll learn all of the details, methods, and media for good, solid instructional delivery in [Chapters 3, 4, and 5](#).

Domain 3: Instructor Credibility and Communications

The Instructor Credibility and Communications domain accounts for 10 percent of the exam, about 9 or 10 questions. (I'm not sure how CompTIA finds 10 percent of 95 questions. You won't see any "half-questions," but they could map a question to more than one objective if they wanted.) In this domain you'll be tested on your *delivery competence*—that's how well you present the material. You can expect scenario-driven questions where you'll need to respond to the question on how you'd manage a particular scenario in the classroom.

Credibility as an instructor is often based on first impressions. This is why it's important for the instructor to be clean, look professional, and wear appropriate clothing for the classroom. Instructors are often judged by their appearances, and a sloppy, late, and poorly groomed instructor may have a challenge to gain credibility with learners. Credibility also comes from how the trainer speaks, the type of jokes and humor they introduce, and in their overall behavior in different classroom scenarios.

Learners want the instructor to be in charge of the classroom environment. Learners don't want the instructor to blame others for problems rather than finding solutions. Blaming includes being critical of the training materials, the organization hosting the trainer, or even the topic the CompTIA CTT+ is teaching. When the instructor is critical of others, the learning environment can shift from a positive atmosphere to a negative focus on the learning objectives. The learners' goal and requirement are to learn what the trainer is to teach. When the trainer is critical or encourages blame for errors, the focus is removed from the learners and solutions.

One of the strongest methods to show delivery competence is to demonstrate the depth of knowledge of the course material. One of the most effective methods to do that is to clearly demonstrate how the information in the course will be applicable to the learners in their day-to-day functions after the class. If there's a disconnect between how the technology is used in the classroom and how learners are expected to use the material outside of the classroom, then the objective of the learners and organization has not been achieved. It's important for the trainer to involve the learners in the

conversation of how they'll use the technology in their work roles.

When most people think of training, they think of the mechanics of training: how you teach and use public-speaking tools, and what speech patterns you have. The mechanics of training are part of your communication and presentation skills. Technical terms, acronyms, jargon, and even your grammar and syntax affect your credibility as a trainer. You need to adjust your speech to the learners' so that what you're discussing is in synch with what they're learning. In other words, you don't want to speak below or above the competence level of your audience.

Presentation skills describe how to present a topic to an audience. You will be tested on the proper techniques for speaking to your audience. Good trainers speak clearly, at an appropriate pace, and use voice inflection, pauses, and emphasis on key points to help convey their messages. Verbal and nonverbal communications are part of presentation skills because they help the learners understand the message and help the trainer understand the reception of the learners.



NOTE Throughout this book having *instructor credibility* is implied as being a good, confident instructor. I'll specifically address this topic in [Chapters 6](#) and [7](#).

Domain 4: Group Facilitation

Group facilitation accounts for nearly half of your exam score at a whopping 45 percent of the passing score (that's about 43 questions). First, you'll need to prove your expertise and experience in establishing and managing the learner-centered environment. This means you'll be tested on how the instructor manages the classroom and the learners, and helps address different learning styles. This objective will test your experience on the promotion of learner engagement and participation—how you get your learners involved in the classroom. You'll also be tested on the methods you can use to quickly assess learners' needs—and how you respond to those needs. Finally, this

hefty objective covers how you motivate learners and reinforce learning objectives.

This is the portion of the CompTIA CTT+ examination where you'll be tested on learning methodologies. You'll need to understand how groups and teams work together—called *group dynamics* and *group development phases*. By understanding how people interact in a learning environment, you can better facilitate the event, engage learners, and involve them more in the learning opportunity. Group facilitation actually starts before the class even begins—and then continues through your introduction, course overview, and interactions with the learners throughout the course. In a virtual environment you'll need to manage technical disruptions, virtual class tools, and polling to promote learner involvement.

This domain on the CompTIA CTT+ examination also includes the promotion of learner engagement and participation. You'll need to be familiar with active listening, questioning learners, and understanding how learners question the instructor. This domain also will test your approach to managing students of different learning styles and social learning, and creating opportunities for students to converse on a topic rather than just telling learners about the topic. This is the concept that learners can gain from the entire classroom experience, not just through the lecture and labs.

As a trainer you probably already know when your participants aren't understanding the material you're sharing. You can see their body language, hear their questions and comments, and through virtual classes you can see their feedback to what you're sharing. This assessment of learner needs happens throughout the course—not just before your training and intermittently. You're persistently looking for feedback and clues from your learners to confirm their involvement and understanding of the course materials.

As a trainer you always hope that learners will be prepared and motivated to learn what you have to offer them. The reality is that learners often need reinforcement for learning. They need praise, rewards, and of course, access to the technology you're teaching. Personalities and learning styles can also affect the learning environment, so you have to monitor all learners to see how one person's contributions, or lack thereof, may affect the rest of the

participants. You'll do this in the formal classroom environment by reading nonverbal clues, determining how learners are engaged, and promoting conversations and involvement with all of the learners. In a web-based classroom you'll use chat, polling, and exercises to involve learners.



NOTE As a CompTIA CTT+ trainer, group facilitation is the bulk of your job. You'll learn different aspects of group facilitation throughout this book, but this specific exam objective is addressed in [Chapters 8, 9, and 10](#).

Domain 5: Evaluate the Training Event

The evaluation of the training event accounts for 18 percent of the CompTIA CTT+ exam (roughly 17 questions). It's important to evaluate the training so you can learn what did, and did not, work in the learning environment. You'll need to review learner performance throughout the course so you can adjust your training style. Evaluations also happen at the close of instruction so learners can review the course, but mainly so you, the technical trainer, can prepare to teach more effectively in the future. This objective addresses both the evaluation of the instructor and the course itself. It's always possible that the instructor did well, but a poorly designed course could cause the learner to be frustrated.

You can use different methods to evaluate your training event—and you'll learn about all of them in this book. You'll be tested on the types of evaluations you can use, legal requirements related to your evaluation of learners, and adhering to your company's requirements for end of course reporting. You may have to, for example, collect information about your attendees, their successful participation in the course, and their involvement in the course throughout the event. While you'll always adhere to your organization's policies, you'll be tested on what you should do as the instructor in different exam scenario-based questions. Of course, the right answer is to always follow the rules and policies of your company.

Evaluating the course also includes the evaluation of the course design—your organization needs feedback on errors or mistakes in the course so that other trainers and learners can anticipate these mistakes. For example, if you modified the course at all during the training to accommodate a better approach to learning, then you'd need to document and report this modification of the course materials—for most scenarios. Reporting and evaluation also include the critique of your own performance of the course delivery, preparedness for the course, and how you think the training event was received by the participants.

When a trainer receives evaluations from the learners, the evaluations don't judge the trainer, but provide insight into what worked, and didn't work, in the training event. You'll use these evaluations to identify trends, topics, and activities that need improvement, and to become a better trainer. Evaluations from learners will also help you prepare an end-of-training report if it's required by your organization. The end-of-training report is a formal assessment of the training event, your performance, and the participation of the learners.



NOTE You'll learn the specific exam objectives for the evaluation exam domain in [Chapters 11](#) and [12](#).

Passing the CompTIA CTT+ Essentials Exam

You are not preparing to take the CompTIA CTT+ Essentials exam—you are preparing to pass this exam. I firmly believe there's a big difference between just taking an exam and preparing to pass the exam. You'll need to have a positive mindset as you study, learn the CompTIA objectives, and reinforce your learning for the exam. Your goal, starting right now, is to pass the exam. Ideally, you'll schedule this exam today—or at least choose a date to work toward. You need a deadline so you don't keep studying forever and never get to the testing center.

The CompTIA CTT+ examination uses multiple-choice questions. Each

question has four possible answers, and you'll have to choose the best possible answer. Only one answer to each question may be selected, only one answer is actually correct, and blank answers are incorrect. You can move forwards and backwards in the exam, mark questions for later review, and you can change answers if you need to. Once you're finished with this exam, you'll end the test, and the exam software will calculate your score. You'll know within just a few moments if you've passed or failed the CompTIA CTT+ Essentials examination.

As you now know, five knowledge domains are on the exam. This book has been divided to match these five domains by parts:

- [Part 1](#): Planning Prior to the Course includes [Chapters 1, 2, and 3](#)
- [Part 2](#): Methods for Effective Instruction includes [Chapters 4 and 5](#)
- [Part 3](#): Establishing Instructor Credibility and Maintaining Communications includes [Chapters 6 and 7](#)
- [Part 4](#): Leading a Group Facilitation includes [Chapters 8, 9, and 10](#)
- [Part 5](#): Evaluating the Training Event includes [Chapters 11 and 12](#)

These five parts cover the specifics you'll need to know to pass your CompTIA CTT+ examination. You can move from part to part, or even chapter to chapter, if you want to focus on specific exam objectives. While I think you should read this book in the order I've written it, there's nothing wrong with first focusing on your favorite (or weakest) attribute of training.

At the end of each chapter is a practice exam that focuses just on that chapter's topics. The practice exams are tricky, picky, and sometimes you'll see that I've included two answers where either answer may be a good choice, but one answer is the better choice. In other words, these exam questions will be tricky, and you may be influenced by distractors to choose the wrong answer. So slow down, take your time, read the question carefully, and make certain you understand the question's intent before answering the question.



NOTE Available for download from the Media Center is a file called Score Tracker—it's a Microsoft Excel document that will help you track

your chapter-by-chapter scores. After you complete a chapter quiz, record your score in this document to help you track which topics you need to review, which exam topics you're passing. The Score Tracker will help you predict your readiness for passing the CompTIA CTT+ Essentials exam with a 655 on a scale of 100 to 900.

Now that you're working toward passing this exam, you need to create an exam study strategy. This means you'll want to create a plan of attack for how you'll learn the exam objectives, confirm your understanding of training methodologies, and retain all that you've learned. I've created a nifty study chart ([Table 1-1](#)) as an ideal example of how long it'll take you to pass the exam. I've included the exam objectives, the specifics of each objective, the chapter where you can find this information, and the expected number of questions so you can study accordingly.

Domain 1: Planning Prior to the Course			
Exam Objective	Related Chapter(s)	Expected Number of Questions	Study Day
Review of Organizational Needs and Learners' Backgrounds in Relationship to Course Objectives	Chapter 2	6 questions	Days 1–2
Instructional Environment in Relationship to Learning Objectives	Chapter 3	6 questions	Days 3–4
Domain 2: Methods and Media for Instructional Delivery			
Exam Objective	Related Chapter(s)	Expected Number of Questions	Study Day
Selection and Implementation of Instructional Methods	Chapter 4	6 questions	Days 5–6
Use of Presentation and Instructional Media	Chapters 4, 5	7 questions	Days 7–8
Domain 3: Instructor Credibility and Communications			
Exam Objective	Related Chapter(s)	Expected Number of Questions	Study Day
Instructor Delivery Competence and Content Expertise	Chapters 6, 7	5 questions	Days 9–10

Instructor Communication and Presentation Skills	Chapters 7	5 questions	Days 11–12
Domain 4: Group Facilitation			
Exam Objective	Related Chapter(s)	Expected Number of Questions	Study Day
Establishment and Management of a Learner-Centered Environment	Chapter 8	11 questions	Days 13–14
Promotion of Learner Engagement and Participation	Chapters 8, 9	11 questions	Days 15–16
Assessment of Learners' Needs for Additional Explanation and Encouragement	Chapters 9, 10	11 questions	Days 17–18
Motivation and Positive Reinforcement of Learners	Chapter 10	10 questions	Days 19–20
Domain 5: Evaluate the Training Event			
Exam Objective	Related Chapter(s)	Expected Number of Questions	Study Day
Evaluation of Learner Performance During and at Close of Instruction	Chapter 11	9 questions	Days 21–22
Evaluation of Instructor and Course	Chapter 12	8 questions	Days 23–24

Table 1-1 A Study Strategy to Pass the CompTIA CTT+ Essentials Examination

The Study Day column reflects the day of your strategy that you'll study the related exam objective. This doesn't mean you have to study every day for the CompTIA CTT+ examination, but if you take time away from your studying efforts, you can pick up with the studying where you last left off. You'll note that I've predicted 24 days of preparation for the examination just to thoroughly understand the objectives and the content of this book. Based on your experience you may need more or less than that predicted amount.

The 24 days that you invest in preparing to pass the CompTIA CTT+ examination does not include time you'll need for reviewing terms and completing the two practice exams available for download from the Media Center. You could safely prepare and pass the CompTIA CTT+ examination, on average, within 30 days from now if you have daily time to study, work through the materials, and maintain your regular job duties. More realistically, when you consider your obligations to work and family, you may need more like 60 actual days of studying efforts. The challenge, of course, is that the longer you take to prepare, the more you may have the

sense of dread of taking the exam. I encourage you to find an aggressive and feasible schedule for the work that you're about to commence.

As part of your preparations I strongly encourage you to create flashcards. You'll see loads of terms in every chapter. In fact, at the end of each chapter I'll help you by listing all of the key terms you need to know for your CompTIA CTT+ examination. Get yourself a big stack of index cards, and make your flashcards by hand. On one side of the card write the term, and on the opposite side of the card write the explanation. Yes, do this by hand—not with software or on the computer. In my experience, the actual writing of the terms helps people to remember the term and definition more clearly than using computer-generated flashcards. Every day whip through your flashcards, take your cards with you to review as you travel, and be persistent in your studying.



NOTE Once you successfully pass the CompTIA CTT+ Essentials exam—and you will pass the CompTIA CTT+ Essentials exam—you'll need to complete one of two performance-based examinations: the Classroom Trainer exam or the Virtual Classroom Trainer exam. If you already know which exam you're preparing to pass, you can skip ahead to that section in this chapter—or be studious and read 'em both.

Passing the Trainer Performance Exam

In this CompTIA certification program you'll be certified as either a CTT+ Classroom Trainer or as a CTT+ Virtual Classroom Trainer. Each designation requires that you pass a corresponding performance examination that will show your abilities as a trainer, your understanding of the training competencies, and how you manage and engage the learners. The CompTIA CTT+ Classroom Trainer performance exam is, as of this writing, TK0-202, while the CompTIA CTT+ Virtual Classroom Trainer performance exam is TK0-203. You must designate which performance exam you're submitting your recording to because the exams are scored slightly differently by

CompTIA judges.

Both performance-based exams allow you to show your teaching prowess, but how you demonstrate your expertise depends on good planning, your comfort level with the topic, and on an adherence to the exam objectives. The performance-based examination is a video recording of you teaching a technical topic to at least five people. The recording must be between 17 and 22 minutes and clearly show and record you teaching, interacting with your audience, and giving real training. This isn't acting or a contrived infomercial—this is you really teaching your participants about something you're an expert at. If your recording is longer than 22 minutes, the judges will watch and score only to minute 22 of your recording.

The topic of the video is up to you—CompTIA gives much leeway on what's covered in the presentation, but you want the topic to be technical in nature to show your expertise conveying information and teaching. In other words, don't make this too easy, as you are becoming a technical trainer—not just a trainer. Choose a technical topic you're skilled in and have taught many times, and create exercises, interactions, and lectures to engage the learners and to showcase your talents.

You also have some requirements as to how you'll teach your materials. You can't just set up the old video camera or screen capture software and record 22 minutes of you doing your thing. You'll need to sketch out what you're going to teach, how you'll interact with your participants, and how you'll demonstrate all of the exam objectives in your presentation. This means you'll likely plan on how you'll cover the topics, the types of exercises you'll complete in the training, and what you're going to say to map to all 12 exam objectives. You should practice your class a few times before the recording—you don't want to stammer, lose your focus, or wreck your chances of passing the performance examination.



NOTE In some “train-the-trainer” seminars, participants may have the opportunity to record their technical training in front of colleagues for this portion of the examination. That approach is perfectly acceptable,

but the video of you that you'll submit to CompTIA must be only of you. You can't have more than one instructor teaching in the video or it'll be rejected.

Recording Your Presentation

When you set the stage for your training, think of how the training event will look to the CompTIA CTT+ judges that will review your presentation. For the classroom presentation, set the camera off to the side so your video technician can easily pan the room as you interact with your audience. Yes, you'll want the camera on a tripod to eliminate shakes and bumps. Consider the lighting of the room—more lighting usually means a better recording, but beware of glare on the camera and on the whiteboards. In fact, you may want to neatly tape paper over your whiteboard to write and draw on to eliminate glare. Be aware of your movement in the classroom and how that will convey to the movement of the camera and to the people watching the video.

You don't have to create a Hollywood set to record a good video, and you may use only one camera in the recording—not multiple cameras. Chances are your consumergrade video camera will work just fine, but you should test the camera a few times—move around the room and speak, and see how the camera focuses on and records your movements, and what you sound like in the recording. Test the battery, digital memory, the zoom features, and all the mechanics of the camera before your training event. You don't want your head sliced off, your face out of focus, or the camera battery to die during your presentation—that won't work for CompTIA's review.

For the virtual classroom recording choose a topic you're familiar with, practice with the conferencing software, and plan how you'll show evidence of each objective. Most virtual classrooms record audio and video, but if your software doesn't, you'll need to acquire screen recording software to record your presentation. Be sure to use wired access to the Internet because wireless can sometimes be choppy and unreliable for audio. Your video and audio must be in synch with what's happening on your screen, or your submission will be rejected. Be sure to set your virtual stage too: shut down unneeded applications, close windows, and turn off any distracting sounds on

your PC.

One of the most important factors of the video recording session is the audio. What your learners hear in the classroom isn't always the same as what's recorded—it's easy to sound muffled and distant, and this will hurt your chances of scoring well on the exam. When you're preparing for the room, listen to the noise level of the room—fans, computer blips and beeps, noise from nearby street traffic, and people strolling by in the hallway can all degrade your performance. Do all that you can to minimize the excess noise—choose a quiet room, mute the computers, switch off unneeded electrical devices, make sure cell phones are off, and put a sign on your door warning bystanders: "Silence! Video Recording in Progress!"

If possible, use a lapel microphone or a boom microphone to make certain your voice is easily heard and recorded. Give your participants some instruction to just be natural—but to speak up when asking questions and during the interaction. If the judges reviewing your video can't hear what you're saying and how you're interacting with your audience, they may assume that the people in the training session can't hear you either. While it's true that the learners in the classroom need to learn what you're offering, your teaching and presentation is for the judges that will be reviewing your teaching and training. Do everything you can to make certain the judges can hear and see clear evidence of your training abilities.

Once you're done with the recording session—remember, no more than 22 minutes—you'll prep the video for submission. First, no editing of the video is allowed at all; no splices, fancy effects, or cuts and fades. You are allowed to stop the recording one time during your presentation, but even this needs to fit into your class—such as stopping the tape for a class exercise, not to redo a portion of the recording. Only in the classroom certification recording will CompTIA allow you to stop the recording twice, for moving the class to a different locale and for an exercise. If you choose to stop the presentation, you'll want the recording to begin right after the exercise is complete—there shouldn't be an impression that the judge has missed any information because of the stop in the recording. Your video must also be submitted in the order the information was delivered to your participants.

You'll then need to take your video recording and choose how you'll get it

to CompTIA. Ideally, you'll convert the video to digital format as MPEG, MPEG4, or FLV formats. You'll submit your video when you pay for the assessment online. While these links are valid as of today, always check with www.comptia.org to confirm the assessment and uploading of your videos:

- If you pay by PayPal or credit card, you'll use <http://CTTSubmission.com>.
- If you're not a CompTIA member and you pay by voucher, you'll use http://CTTSubmission.com/profile/register.php?q_paypal=1.
- If you are a CompTIA member and you pay by voucher, you'll use http://CTTSubmission.com/profile/register.php?q_paypal=0.

You can, if you really want to, choose to mail your video presentation to CompTIA for their review. There is, however, a \$35 fee for submitting your video via the mail or courier. There's an additional \$35 fee if you submit your recording on a CD via courier and it's not in the MPEG, MPEG4, or FLV formats. Basically, it's much more cost effective to just convert your videos to the correct format and upload them through the CTTSubmission.com web site. Also note that if you send your video presentation to CompTIA via the mail or courier, CompTIA won't review videos on cassette tapes. You have to put the recording on a CD in the correct format or send them a DVD-R format using the region-free or Region-1 formatting. CompTIA will not return any CDs or DVDs to you if you choose to submit them by mail or courier service.



NOTE Being a technical trainer, you're probably also a technical person. Be a good technical person and make a backup of your recording. Always, always back up your work, right? That's the message here too—while it's unlikely CompTIA will lose your recording, things happen, files get corrupted, and tears are shed. Immediately back up and keep your recording in a safe and secure locale. Better safe than way sorry.

When you're ready to submit your recording to CompTIA CTT+ for their review, you'll need to complete either the Classroom Trainer exam or the Virtual Classroom Trainer exam submission forms. These are simply titled CompTIA CTT+ Forms A, B, and C, but you must choose the correct form for the type of performance-based exam you're applying for, or your scoring

will be delayed. These forms are available through www.comptia.org, and you'll be instructed to submit the form as part of your recording upload. The forms for both exams ensure that your recording is ready to be submitted to CompTIA. The form will require documentation of:

- Proof of payment for the examination
- Photocopy of government-issued ID
- Verification of passed CompTIA CTT+ Essentials exam including a photocopy of the score report
- Proof by two witnesses that you are the trainer in the recording
- Name, signature, and contact information for participants in the recording
- Details about the course you've presented and its subject matter
- Information on how you planned prior to the course and how you prepared the learning environment
- Explanation for why the recording may have been stopped, if applicable to your recording
- Evaluation of your performance, the success of the presentation, and any additional remarks

If you do not complete and submit these forms, you'll fail your performance exam! It's extremely important to complete the forms, because the pre- and post-class exam objectives are documented in the forms. On several of the exam objectives CompTIA clearly states that failure to complete the "necessary paperwork" will result in a failure in that objective. These forms are the necessary paperwork.

Understanding the Classroom Trainer Scoring

Just like with the CompTIA CTT+ examination, it's important to understand the objectives you'll be tested on during the review of your Classroom Trainer performance-based exam. By understanding what the judges will be reviewing and how you'll be scored, you're more apt to prepare accordingly for your classroom recording. The domains on the classroom training examination are the same domains you'll be tested on during the CompTIA CTT+ examination. The difference, of course, is that during the review of your performance-based exam, you'll need to show your understanding of these objectives by actually performing the objectives. And you'll have no more than 22 minutes to show your expertise in all of these objectives.

You can do this, however, because many of the things you do in the classroom recording can map to more than one objective. You'll be scored on each of the objectives on a scale of 4 down to 1. Here's the breakdown:

- 4—Outstanding performance
- 3—Successful performance
- 2—Limited performance
- 1—Seriously deficient performance

A score of 1, seriously deficient performance, on any of the objectives means that you'll fail the performance portion of the examination. Should you fail the performance exam, there's no waiting period between your first and second attempt. If you fail any attempts after the second examination, however, you'll have to wait at least 30 days before you can try again. Of course, your goal is to pass this exam and get on with your life, get back to training. Here are the sections you'll need to gear your training efforts toward in your classroom trainer presentation.

Review of Organizational Needs and Learners' Backgrounds in Relationship to Course Objectives

To score well on this objective, you'll need to show that you've mastered the material to the point of relating the content to the learner's role or use of the product. You'll want to clearly and accurately convey points about your topic that may be confusing to the learner or where the learner may bristle at the information you're sharing. You'll also need the skill set to assess where learners are now with the technology and how their competency level relates to the course prerequisites. CompTIA also stresses that this objective allows you to modify learning materials to meet the needs of your organization without changing the original course design.

If you want to score an outstanding performance, you'll need to address individual learners and show that you've made an assessment of learners' skills. Based on the assessments you've made, you'll adapt your teaching approach, the course content, and the approach in your delivery. Also find a way to connect the activities of the classroom to the real-world application of how the participants will use what you're sharing. If you ramble or offer irrelevant or inappropriate statements in your presentation, you'll likely fail this portion of the exam.

Instructional Environment in Relationship to Learning Objectives

The goal of this objective is to communicate how you, the instructor, understand the learning environment and how the learners will participate in the classroom environment. For example, you might be teaching a network operating system and want to give the details of the network, TCP/IP information, and server names for the classroom. You'll explain how the computers are connected so that the learners can then anticipate and relate to the learning objectives of the session. Your explanation of the room setup must clearly relate to how the configuration meets the learners' needs. In other words, you don't need to record information that's not relevant to your presentation.

You want to explain the configuration of the room, but also the configuration of the class. Explain when breaks will happen, the duration of the course, a course agenda or topics to be covered, and any post-class information, such as helpdesk information or a web site for additional support. Instructors that don't offer information about the learning environment, don't adjust the room for learners' needs, and don't communicate how the course will help the learners in their roles won't score well on this objective.

Selection and Implementation of Instructional Methods

If you want to score well in this objective, you'll create logical and seamless transitions between topics in your presentation. In your presentation you'll address different learning styles through your instruction, such as lecture, demonstrations, and hands-on exercises. It's also a good idea to show that you're knowledgeable in the subject through stories, experiences, and even humor to set the class at ease. Of course, you'll want to interact with the participants and keep them involved in the exercises and lectures. This is a portion of the Classroom Trainer exam where you can show your style as a trainer—use humor, ask questions, and create discussion with your participants.

Instructors that don't adapt their presentation to different learning styles score poorly in this objective. In other words, if you just drone on and on about a topic, you're not adapting your teaching to allow for different learning styles. However, exercises, activities, stories, and jokes that don't support the material and point of the presentation also will cause a low score

in this objective.

Use of Presentation and Instructional Media

Instructors are to teach the course materials in the manner that the materials were designed. The course materials help guide you and the participants through the topics, organize information, and set the expectations for the course. The course materials are not a script, however. The instructor is to use the materials as a portion of the training, to adapt the presentation for the learning styles in the room and the questions of the participants, and to encourage interest and participation in the topic being presented.

You'll score well on this topic if you can utilize more than one media for learning—don't get bogged down in slideshows. You'll want to use the whiteboard, demonstrate the technical component for the learners, and even host a lab. Ideally, you'll utilize at least two different forms of media—though three would be good. This means you'll use the whiteboard, overhead presenter, handouts, and other visual aids to help with the learning process. If you don't use any learning media at all, you'll fail this portion of the exam.

Instructor Delivery Competence and Content Expertise

Learners will see you, the technical trainer, as the expert on the material to be presented. After all, if you're teaching the topic, you should be the expert. But being the expert means that you have to establish and maintain your expert status in the presentation. You'll demonstrate your confidence level with the material—and practicing the presentation several times will help you be more confident on the recorded presentation. You'll also show your expertise by linking the knowledge transfer in the classroom to how the learners will use the technology in their roles in the organization. You should not fictionalize answers, overstep your boundaries, or criticize other trainers, the training materials, or the technology you're presenting.

One way to score high on this portion of the CompTIA CTT+ classroom exam is to take the content of the course and the technology at hand, and use these resources to answer learner questions. If you know your audience, through pre-course assessments and the course dialogue, you should address the participants by name when you need to highlight certain attributes and features of the technology that are relevant to the learner. Never read from the

training materials—people can read at home. Do this in your recorded training and you'll fail.

Instructor Communication and Presentation Skills

A portion of being an effective instructor is being an effective public speaker. You know how to speak clearly, at a good pace for your audience, and you can use the inflection, pitch, and tone of your voice to communicate well. In your recorded presentation you'll want to be certain to be professional; keep your conversation void of anything obviously offensive or biased. When you present, eliminate distracting habits such as pacing, rocking back and forth, or jingling change in your pocket. Put down markers when you're done using them, and don't go bonkers with laser pointers—commonsense stuff here.

To score high on this objective, you'll need to focus on how you emphasize the key points of the class, how you move from one topic to another, and your body language and eye contact with the learners. Be certain to start and conclude your presentation with an agenda of the course and to summarize the course content as you move along. If you open your presentation without any introduction or course overview, sit at your computer without moving and interacting with the learners, or say something wrong, offensive, or biased, you'll fail this exam objective.

Establishment and Management of a Learner-Centered Environment

A learner-centered environment takes the focus off of you and puts the attention on the goal of the presentation—for the learners to learn. It's always more important that the people in the room learn than it is for you to teach. This exam objective can be accomplished by being positive, interacting with the learners, and addressing issues that learners may have regarding their expectations for the course and the actual content of the course. It's important to engage all of the learners in the class—not just the most eager to participate. You want to avoid favorites, bias, and any criticism in the class. A learner-centered environment also encourages participants to interact with one another, not just the instructor.

During your presentation you should communicate the objectives of the class as to how the learners will use the materials and participate, and how the information is relevant beyond the classroom. Get your participants

involved in discussions and conversations among themselves, and facilitate the dynamics of the group to put the focus on the learners, not you, the instructor. Be certain to use an activity where learners are involved in the lesson, such as a lab, a quiz, or a team activity. If you focus on how wonderful you are or you fail to achieve the learning objectives of the presentation, you'll fail this objective.

Promotion of Learner Engagement and Participation

Here's an objective that overlaps with other CompTIA CTT+ Classroom Trainer exam objectives. The "Promotion of Learner Engagement and Participation" can also map to the previous objective of the "Establishment and Management of a Learner-Centered Environment." Both objectives put the focus on learner involvement; this objective, however, concentrates more on how you get learners involved. Your listening skills, the questions you ask of the participants, and how you introduce opportunities for all of the participants to be involved in the conversation are all evidence of being a proficient technical trainer. Be certain to do this in your recording, and you'll score well in this domain.

Technical trainers that will score low on this portion of the exam don't ask questions. If you've ever sat through a lecture with zero interaction from the trainer, you'll know how painful it can be to try to learn. Questions and participation are two key elements of the objectives. Just as you ask questions, you need to make certain you've allowed opportunities for the learners to ask questions too. And, when a participant asks a question, treat the question with respect—don't insult the learner or their question. This is unacceptable in the classroom and certainly not acceptable for a passing CompTIA CTT+ score.

Assessment of Learners' Needs for Additional Explanation and Encouragement

A good technical trainer is in tune with the comprehension of the learners. You can read body language, see how the learners are doing in their labs, and hear their banter with peers about the technology you're teaching. When you see participants who are confused or frustrated, you don't ignore them—you go to the problem and look for a resolution. You identify what the misunderstanding is by asking questions and then, once you clearly understand what the learner needs, you address the issue. Some learners are

good at masking their confusion with the course content, but would like an opportunity to ask a question—be certain to encourage questions by pausing and asking the group if anyone has a comment or question.

If you're in tune with your learners' body language and clues of comprehension and you respond to learners' needs, you'll do well on this portion of the exam. Anticipate questions, prompt users to get involved, and then address the learning need. Instructors who ignore learners aren't good instructors, and they won't be CompTIA CTT+ Professionals either. When learners ask questions, don't dismiss the questions—be a professional, be courteous, and care for the learner. These are all components of the learner-centered environment.

Motivation and Positive Reinforcement of Learners

It's important to praise and encourage learners in the class. By paying attention to how learners are completing exercises, their body language, and conversation, you can easily spot opportunities to praise their efforts, encourage progress on shortcomings, and offer positive reinforcements in the classroom. As a CompTIA CTT+ candidate you must demonstrate this objective in your classroom exam recording—if you offer no motivation or if you offer negative reinforcement, you'll fail the exam. In the classroom you should consistently, across all learners, encourage individuals to keep doing the good work, encourage their efforts and praise their successes, and keep the learners from feeling discouraged and overwhelmed.

One method of positive reinforcement is to link the subject matter in your presentation to the learners' work and lives beyond the classroom. Show learners how what you're teaching will be applied in their day-to-day lives, and they'll be motivated to learn and stick with the course objectives. You can also give positive reinforcement through group conversations, questions and answers, and responding to user remarks about the material, the technology, or the class. Don't ignore complaints from participants—these are often an indication that they need a little help or that they disagree with the content.

Evaluation of Learner Performance During and at Close of Instruction

Throughout your presentation you should be monitoring how your learners

comprehend the material. Be aware and cognizant of their interactions with your presentation, demonstrations, and the course material. Your observation of the learners is just the first step, because you'll also need to query their involvement, their comprehension, and their remarks through questions, conversations, and activities. Using many different approaches to measure the learners' comprehension is encouraged for your role in the classroom environment and in the trainer recording you'll submit to CompTIA.

If you do nothing to assess how the participants in the room comprehend the subject, you'll fail this objective on the CompTIA CTT+ classroom examination. Ideally, you'll monitor, observe, question, and involve the learners to see how well they understand the topic that you are presenting. Once you've learned the level of comprehension, then you can tailor your dialogue to address their needs more clearly. When you're leading hands-on activities, you should move about the room so you can see how the learners are doing with the material. Don't sit at your desk and wait for the class to declare they're finished. Get out there and see how they're doing, and be available during their exercises.

Evaluation of Instructor and Course

Evaluations aren't to be critical of the instructor or the course materials. Evaluations are an opportunity to identify weaknesses in the course materials, identify how well the materials function and relate to the work, and to see how well the technical trainer was able to facilitate the material. The instructor should also review the course performance, areas that worked well—or didn't work so well—and what modifications may have been made in the class. The evaluation should reflect the success of the course, need for improvements in the course, and evidence of how the learning objectives were achieved.

In the video you should offer an assessment of the course from your perspective as the instructor, the purpose of what you've taught from the organization's point of view, and how learners will use what you've presented. You want to show that you've completed the course learning objectives and what the participants should have learned. Explain how the learning objectives were met in the recording as part of your closing remarks. Define the tools, exercises, and topics that were taught and how the learners

will use the knowledge in their roles outside of the classroom.

Scoring the Virtual Classroom Trainer Exam

Once you've passed the CompTIA CTT+ Essentials examination, you can then submit your virtual classroom training session to CompTIA for their review. The objectives of the Virtual Classroom Trainer examination are identical to the Classroom Trainer examination, but the implementation and demonstration of the objectives are different. You'll have to show competency in all 12 of the exam objectives to pass this exam—and you'll be doing this demonstration through a virtual classroom environment.

The good news is that some objectives and activities can map to more than one objective. For each of the exam objectives, you'll be scored on a scale of 4 down to 1. Here's the scoring structure:

- 4—Outstanding performance
- 3—Successful performance
- 2—Limited performance
- 1—Seriously deficient performance

If you score a 1 on any of the exam objectives, you'll fail the entire certification. It's not difficult, however, to score well on this exam if you plan ahead on what you're going to share with the learners. If you fail—and if you prepare for the recording, you won't—you can attempt this portion of the certification again immediately. If you fail the second or any attempts thereafter, you'll have to wait at least 30 days to attempt the exam again. The following are the objectives specific to the virtual classroom recording examination.

Review of Organizational Needs and Learners' Backgrounds in Relationship to Course Objectives

The goal of any training is to help learners learn. You'll do this by first understanding the needs of the organization you're teaching for, the readiness of the people in the class, and the backgrounds of the people attending the training. The background of the learners means that you understand their expectations and their anticipation of how they'll apply what you present to them to their roles and lives. You need to understand the learners' skill levels

coming into the class and determine if they've met the prerequisites for the course. You'll need to adapt your presentation for the learners—but don't change the topic beyond the intent and design of the course.

To score well on this objective, you'll document the background of the learners, their needs for the virtual classroom, geographic location, language barriers, and time zone differences. You'll also need to make certain the people in the presentation are familiar with how to interact with you in the presentation—how they'll use the virtual classroom for chat, sidebars, polling, and submitting information to you. In the recording you can ask if the learners have ever taken a virtual class before, and then give them a quick tour of how they can interact with you in the presentation.

Instructional Environment in Relationship to Learning Objectives

A virtual classroom environment can have more challenges to prepare for the training than a classroom environment. You'll need to take extra pre-class steps to confirm that the learners understand how and when to connect to the virtual classroom and to confirm the networking, audio, and system compatibility with your learners. Your goal with this objective is to prepare a learning environment so that the actual training goes smoothly and learners are comfortable with the virtual classroom. You'll need to test the labs and access to network data and applications, and to plan for how you'll manage interruptions in the course, such as disconnected users, software glitches, and password mismatches.

In your recorded presentation explain how the system works and where files for exercises, software, and other materials are located. Be involved with your learners from the start to help them quickly become comfortable with the classroom interface. Be sure to describe how learners will use the information you're teaching back in their workplace. If you fail to have your slides loaded, don't have access to information, or appear generally disorganized and unprepared, you'll likely fail this portion of the exam. You must have a working, functional virtual classroom environment—and be comfortable with the environment—to pass this section. Your comfort with the training tool is part of the formula that will lead the participants to learning.

Selection and Implementation of Instructional Methods

In a virtual classroom you have to choose the best tools and techniques to instruct your remote learners. The course designers may have already identified the procedures to deliver the course, but in some situations you may need to adapt the course to help certain learners comprehend what you're teaching. This can mean offering an analogy or a demonstration, or creating an additional exercise for the learners. Your goal is to choose the most effective learning activities to engage the learners and address different learning styles. Throughout your training don't ignore learners during their exercises, but keep in touch with them to make certain they're completing the work and are fine with their progress.

If you use only one instructional method, such as a slideshow, you'll fail this exam objective. Practice your presentation so that you move between lecture, a demonstration, and perhaps an exercise for the participants. You want to show that you have mastered the different instructional methods that are available to you in the virtual classroom environment. Engage your learners through stories, humor, and demonstrations without criticizing the technology you're teaching or the virtual classroom. If possible, use polling in the course to confirm learner engagement and participation.

Use of Presentation and Instructional Media

In the virtual classroom you must have mastered the interface to use it effectively. You need to know how to interact with participants as a group or one-on-one. Your virtual classroom may allow for chat, polling, quizzes, remote control of users' desktops, and more. The classroom interface is a great tool for promoting learning and engaging learners—this is a topic that can help in many of the exam objectives. Beyond the virtual classroom tool, however, you'll also need to manage the learning by transitioning from topic to topic, have your demonstration prepared, and have access to information so as not to delay the learning.

If you're unprepared to lead in the virtual classroom, it can become more painful for the learners, and you'll likely fail the presentation. You'll definitely fail the presentation if you have no content for and interaction with the learners—a blank screen doesn't facilitate learning (nor does staying on just one slide while you lecture). Use at least two different tools during your presentation—or better yet, three. Plan for how you'll introduce the learning

tools, how you'll transition from topics, and how the tools can engage and support learning. Be certain to keep learners posted on where they should be in their materials by stating steps or page numbers in your lecture and demonstrations.

Instructor Delivery Competence and Content Expertise

Your being prepared to teach will help learners comprehend and retain the information you present. A trainer that's unprepared, isn't familiar with the learning environment, and can't show how the subject will help learners in their roles in the workplace is likely to fail this portion of the examination. You need to show your learners and the CompTIA judges that not only have you mastered the virtual classroom software, but also the technology you're presenting. Learners expect trainers to be experts in the subject matter—and this only comes with experience, education, and planning. Being prepared is the key to showing competence and expertise.

At the start of your presentation introduce yourself and the classroom topic, involve the learners, and then share with them what you're about to present. Set the expectations for the learning and the timing of the presentation—and what the learners will get from their time in the classroom. When a learner asks a question, apply the information in the course to the specific learner; don't just repeat what you've already offered. In the recording you'll want to speak with authority and confidence. Should issues happen in the recording, or in any virtual classroom, you can show your expertise by not panicking, but finding and implementing a quick solution. Reading from the materials or slides will ensure that you'll fail this portion of the exam.

Instructor Communication and Presentation Skills

In the virtual classroom environment it's extremely important to speak clearly, at an appropriate pace, and to use your voice to accurately convey the meaning of your presentation. Your pitch, tone, and inflection directly influence the message you're giving to your audience, so you must be aware of your audience composition—consider their background, time zone and language concerns, and varying levels of experience with technology. You can use emoticons, different pointers on your screen, and your virtual classroom software to help convey your message to your audience. Take

advantage of private and group chats to address learner concerns and progress. In the virtual classroom you don't have the same advantage of nonverbal communication as you do in a live classroom, so you must take extra steps to communicate accurately with your audience.

Be certain to include introductory and closing remarks about what the participants have learned in your presentation; failure to do so will result in a failure for this exam objective. You'll also need to be professional, courteous, and in control of your interface that you're recording. Don't make offensive or biased remarks, keep dialogue on point, and have a plan of what you'll say and how you'll say it. In your recording be prepared to change your pointer tool quickly to highlight, draw on the presentation, or to use other creative methods to engage the remote learners. As in all presentations, you want to avoid conversation fillers such as "ahs," "ums," and rambling speech.

Establishment and Management of a Learner-Centered Environment

You'll be judged based on your ability to take a virtual environment and transform it to a learner-centered environment. This can be tricky in the virtual environment because the learners are often watching what you're doing. Find a method to quickly and consistently get your learners involved in the course. As you share the agenda and plan for the learning event, you might use a few polling questions to immediately get your audience involved. Your learning environment needs to shift the focus to the learning objectives of the training and how it correlates to the participants' roles in your organization. The focus is on helping the learners learn, not on the trainer doing the training.

If your lesson doesn't involve the learners and it's more of an instructor-centered approach, you'll fail this portion of the CompTIA CTT+ Virtual Classroom Trainer exam. You want to get the learners involved through conversations and exercises where the learners and you can interact, and to engage the learners throughout the training. If you are doing a demonstration, for example, use your mouse pointer to highlight areas of the demonstration without moving the mouse too quickly—smooth, slow movements help learners quickly see what you're doing. In your recording be sure to use your voice, software, and the course materials in combination to engage learners.

Promotion of Learner Engagement and Participation

Because in a virtual classroom environment you'll lose the nonverbal communication aspects of training, you must listen more intently to your participants. You must query their understanding, confirm the participants' understanding through quizzes and challenges, and then clarify any concerns or issues before moving forward. Different class activities can help you promote the learner engagement—your goal is to get the learner participating in the class rather than being a passive member of the group. Understanding your classroom software, being an expert in the technology you're teaching, and planning for activities to get learners involved will help you score well on this section of your exam.

If you don't ask questions and just assume that the learners comprehend your instruction, then you'll automatically fail this portion of the exam. You must ask questions, challenge, and present opportunities for learners to ask questions of you. Your questions, however, should be valuable and related to the course content. Show the learners how to contact you in the course or how to talk with other members of the class. Use your pointer, such as stars and checkmarks, to show approval to classroom involvement of the learners. If you want to score well on this section, create open-ended questions that will get your participants talking with you and their colleagues in the presentation. Don't rush the dialogue, but control the direction of the dialogue with input to keep the focus on track.

Assessment of Learners' Needs for Additional Explanation and Encouragement

As a virtual trainer you must take extra steps to ensure that learners comprehend the information you're presenting—and spend time to explain concepts in detail. You can demonstrate this objective in your recording by keeping users on task with your demonstrations, referring to page numbers in their materials, and pausing frequently to ask and receive questions. You might also, if appropriate, do remote control of a participant's screen to help them through a lab, but use caution that you're helping the user, not doing the assignment for them. Participation and involvement with the remote learners projects encouragement and an openness to entertain questions and provide clarifications on materials you've taught.

To score well on this exam objective, you should repeat the learner's question to make certain you understand their question, provide a clear and

direct answer, and if possible, demonstrate the solution for them. Throughout the recording you'll want to gauge and monitor your learners to keep them involved in the course—use polls and private chats to stay in touch with your participants while not distracting from the course. When you're providing a clarification for a user, do more than simply repeat what you've said. Explain the topic in another manner, using an analogy or a demonstration, or involve the group to help answer the question. Never take a private chat message and share with the group in such a way as to identify the person in the private chat. Don't ignore learners; stay in touch with them, and answer their questions in a timely manner.

Motivation and Positive Reinforcement of Learners

In a virtual class you can motivate and reinforce learning by explaining the concept, demonstrating the concept, and then having the learners apply the concept. When learners can link the training to their roles and responsibilities outside of the classroom, they'll be more eager to learn and want to be more involved in what you're presenting. In some cases you can even have a participant take over your screen and coach them through the demonstration for the entire group. Be certain to ask for someone rather than just assign the activity—and thank them for demonstrating the materials for the class. Encouraging learners, recognizing their participation in the class, and keeping them involved all can help reinforce your learning topics.



NOTE When a participant leads the class by demonstrating the materials, it's sometimes called “driving through” the materials. It's like when you're teaching someone to drive a car you actually let them drive for awhile.

If you don't motivate the learners, if you ignore their presence, and if you don't show that the learners are involved in the presentation, you'll likely fail this portion of the examination. You need to communicate with, not just to, the class participants. Positive reinforcement helps the learners see the connection to their work and the course objectives. Negative reinforcement uses fear and embarrassment to prod the learners along—something you

don't want to do in your presentation. Thank the learners for participating, getting involved, and asking questions; this makes them feel comfortable in the class and encourages other participants to get involved too.

Evaluation of Learner Performance During and at Close of Instruction

Your evaluation of the learners doesn't happen just at the end of the course, but throughout the instruction. You can demonstrate this CompTIA CTT+ objective in your virtual classroom in a number of ways: ask and answer questions, challenge learner knowledge, assign exercises, and give quizzes on the information you're teaching. By consistently monitoring the learners' progress, you'll be able to ascertain which participants understand the materials and which learners may need some extra attention. Don't embarrass the learners, but do interact with them to confirm their understanding and involvement. You can also achieve this objective by observing the students' work and coaching them to a successful completion of the exercises.

Instructors that ramble on, ignore students and their signs of needing additional support, or that don't offer participants the opportunity to ask questions and for clarifications are certain to fail this objective on the CompTIA CTT+ Virtual Classroom Trainer examination. In your recording, clearly monitor students' work and their interactions, and encourage feedback by asking open-ended questions about the information you're presenting. When you're giving a quiz, for example, you can read the question aloud for the participants and have them take turns answering questions, using a poll to signal their responses, or they can keep their answer private between just them and you. At the close of the presentation, you'll want learners to always have an opportunity to review your performance and the course materials.

Evaluation of Instructor and Course

Course evaluations are meant to help you become a better instructor and for the course to be improved for future participants. As a virtual instructor you should review your performance, the performance of the virtual classroom, and the course design. You want to see if the course was successful from your perspective, the participants' perspective, and your organization's perspective. This means you'll need to look at your training, the learners' retention, and how the learning objectives and the course content were in alignment. An end of the course report is always needed to convey your

finding. Your participants may also complete an instructor evaluation that may, or may not, be shared with you depending on the rules and policies of your organization.

While you may introduce an evaluation for the participants as part of your recorded presentation, you'll actually complete your evaluation as part of your CompTIA CTT+ Virtual Classroom Trainer documentation. This is Form C that you'll complete and submit. The form will ask you to evaluate the training event and how you met the learning objectives you presented in your recording. You'll also be asked to describe the success of the presentation and what worked well, if you'd change anything in the presentation, and what activities you added to help learners in the presentation. Finally, you'll have an opportunity to provide additional remarks about your presentation and the evaluation of your recording.

Chapter Summary

It's not an easy process to earn the CompTIA CTT+, and preparing for an exam can be frustrating and cause anxiety. Just as you'd ease the concerns and fretting of participants in your class, I hope to do the same for you throughout this book. By now you should have a clear overview of what it will take to earn the CompTIA CTT+ certification. You'll need to pass the computer-based exam (TK0-201) and then either the classroom performance based-exam (TK0-202) or the virtual classroom performance-based exam (TK0-203). The objectives in the computer-based exam apply to all trainers—classroom based or virtual.

The CompTIA CTT+ Essentials examination has 95 questions, and you'll complete the exam within 90 minutes. The passing score for the CompTIA CTT+ Essentials exam is 655. Once you've passed the CompTIA CTT+ Essentials test, you can submit your classroom-based recording or the virtual classroom recording. With your submission you must complete the appropriate CompTIA forms and paperwork documenting your recording, participants, and information on your pre- and post-class work. The total cost for your certification will be \$512 (\$246 for the CompTIA CTT+ Essentials exam and then \$266 for the review of your recording).

In this chapter you also learned about the five learning domains for your testing and performance-based examinations: Planning Prior to the Course, Methods and Media for Instructional Delivery, Instructor Credibility and Communications, Group Facilitation, and Evaluate the Training Event. The five domains are then broken down into the 12 exam objectives you'll be tested on. The 12 exam objectives, completely covered in the upcoming chapters, are applicable to the CompTIA CTT+ Essentials examination, the classroom performance-based examination, and the virtual classroom performance-based examination. You'll need to adapt your training strategy to the objectives that are specific to the performance-based examination you'll be passing.

In this chapter you've learned much information already. The content of this chapter will help you create a study strategy to prepare to pass the certification exam. Create flashcards to help you memorize the terms and definitions, and complete the end-of-chapter quizzes. This first quiz will be a bit different from the upcoming quizzes in the book. You probably won't see questions like those from this chapter on your CompTIA CTT+ examination because the information in this chapter was more of an overview of the exam. Treat this first quiz as a refresher on how to answer questions, identify distractors, and how to refresh your exam-passing abilities. Be sure to record your chapter quiz on the Score Tracker document available for download from the Media Center.

Key Terms

Assessment of Learners' Needs for Additional Explanation and

Encouragement Exam objective that judges the trainer's ability to quickly assess learners' needs, anticipate and answer questions, and offer encouragement to participants.

classroom-based training The instructor and the participants are in the same physical space for the learning. The trainer and learners can see one another and interact with verbal and nonverbal communications, and the instructor can quickly assess who's on target with the learning and which learners need encouragement and support.