



CU-101.3

Introduction to Testing

Intro to Job Task Analysis

Part 1

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The video thumbnail features a man with glasses and a red plaid shirt, identified as Lance Blackstone, against a blurred background. The text on the left side of the thumbnail includes the course ID 'CU-101.3', the course title 'Introduction to Testing', the main title 'Intro to Job Task Analysis', and 'Part 1'. The Certiverse logo and a stylized 'U' are in the bottom right corner.

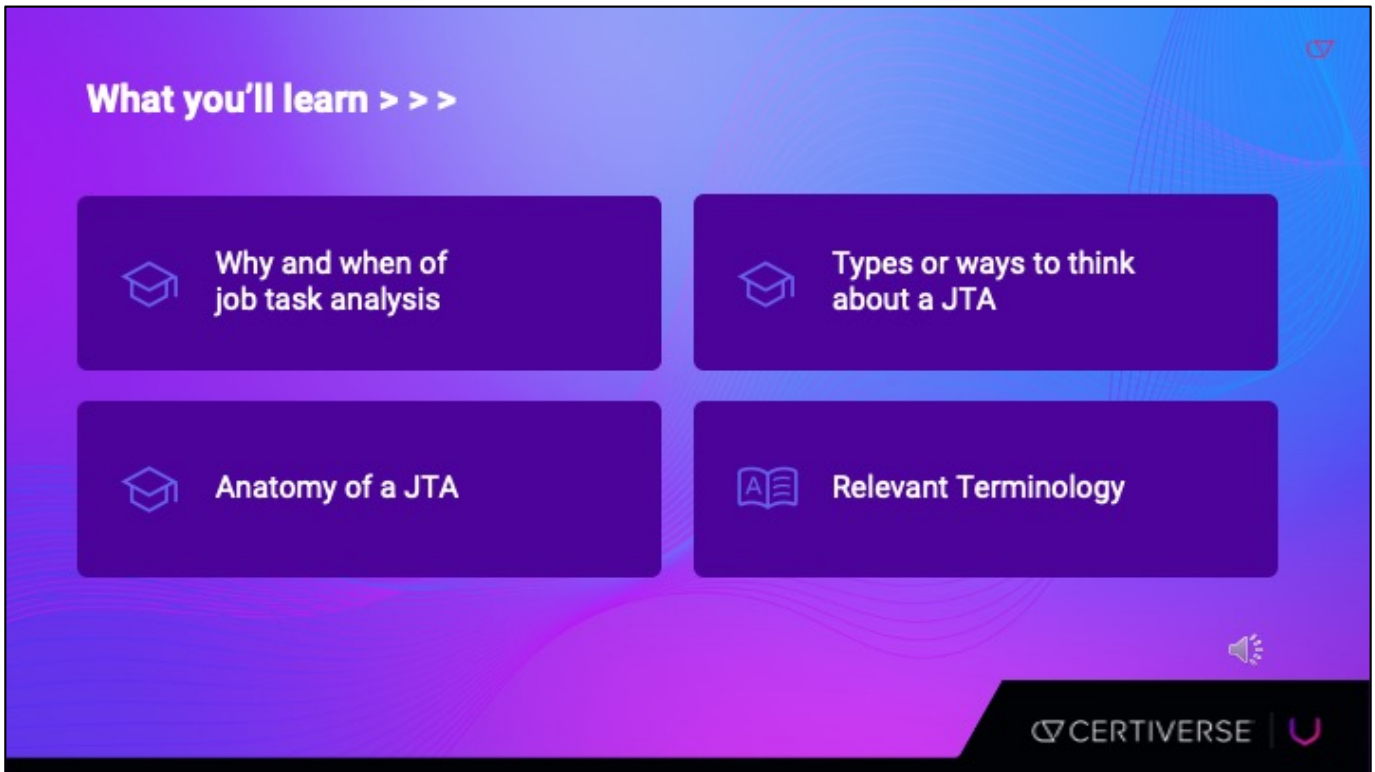
Welcome to Certiverse University and to this lesson “**Intro to Job Task Analysis, Part 1**”.

My name is Lance Blackstone, I'm one of the Founders of Certiverse and I'll be taking you through this lesson.

This is part 1 of a 2-part series. In these two lessons I'll describe how we can methodically and empirically identify the content that needs to be assessed on an exam. There are a number of names for this process, but for simplicity and consistency, we'll be using the term Job Task Analysis or JTA for short.

A quick, obligatory disclaimer ... this course is intended to be general and not “Certiverse-specific”. However, some industry concepts and terms are variable or can be ambiguous. In those cases, we at Certiverse have sometimes settled on a specific usage.

Thanks again for joining me ... let's get started!



In this lesson we'll be covering the following ...

- Why do you need a job task analysis? We'll cover the rationale behind JTAs as well as when they are needed and when they may not be.
- We'll briefly cover types of JTA's – there are different ways to think about this process depending on what is being assessed.
- We'll discuss and define all the constituent parts of a JTA ... role description, data elements to be gathered, and the three phases that make up the process itself
- And as usual, there will be a bunch of relevant terminology you'll learn along the way. Note that all terms are defined in a glossary you

can find on the Certiverse knowledge base.

Why a JTA is needed >>>

An Exam should be based on a thorough analysis of curriculum, job, or role

- > It is critical to know what the exam needs to assess!
- > A JTA tells you what content areas need to be assessed by your exam
- > ... and provides the relative weighting of those content areas

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So, you need to assess individuals for a job or a role ... where do you start? We should start by clearly understanding what the exam needs to assess. We need to determine what is required in the job or role OR in the case of something like a training course, what makes up the curriculum.

- This is critical! An exam that is not aligned to the job or role is not useful and can even be dangerous. We want to be sure a licensed pilot really knows how to fly that plane!

- So, how do we make sure the exam is aligned? We start with a job task analysis. A JTA is a collection of methods used to determine the knowledge, skills, abilities, and other characteristics required to perform effectively in a job or role. It tells us what content areas will need to be addressed and measured by the exam.

- Not only does it tell us what content needs to be assessed, it provides us with a distribution of that content. We'll be able to understand the importance or criticality of each content area in relation to all other content areas by the time we are done.

When you need a JTA >>>

A JTA is necessary when you need to ...

- > ... decide what content should go into the exam blueprint
- > ... defend your choice of domains as job-related
- > ... ground your certification in empirical data

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What are some of the key determiners that tell us we need a JTA? Let's talk about a few ...

- As we have already mentioned, if we don't already know, JTAs tell us what content needs to be assessed and measured on the exam. This is most obvious for cases where we are developing a brand-new exam. But even existing exams may need to be refreshed over time.

In some areas change is fast and furious – think IT security. JTAs should be executed as often as needed to assure the exam and its content remain relevant.

- You may need to defend the exam. This “defense” can range from responding to casual challenges – say the occasional disgruntled candidate - to serious legal challenges. On one end, you want to assure that the candidates taking your exam see it as relevant, and if they don't, you should have

evidence handy that it is.

At the other extreme, when you are deciding people's livelihood - think about exams that are prerequisites to jobs or professions - you must be able to prove that your exam is fit for purpose and you may have to do it in a courtroom.

- Speaking of defending, they say the best defense is a good offense. Proactively ensuring that your exam is grounded and supported by empirical data makes your exam more defensible. More importantly it's just doing the right thing.

If you intend for your exam to be used to make judgements about people's careers prospects, if you want it to be aligned and relevant to the stated purpose of the exam, then you should administer a JTA.

When you *might* not need a JTA >>>

A JTA might not be necessary when ...

- > ... you have done one recently [enough]
- > ... your exam will be based on an existing instructional curriculum
- > ... your exam content is determined in a different way [e.g., legislation]
- > ... your exam covers something very specific

So, when might you get away with not administering a JTA?

- If you've done one "recently enough". What is "recently enough" though? That's going to be very specific to the exam in question.
If I'm administering an exam called "Introductory Chess Skills", it might be reasonable to think that I could do a JTA once, and use it for years, decades, maybe forever. The rules of chess are established and don't change. What an introductory player needs to know is unlikely to change.

On the other hand, consider an exam called "Basics of Internet Security". This is a domain that changes constantly. Large percentages of what was relevant 10 years ago may have little or no application today.

- You might not need a JTA if there is already an established curriculum, then you essentially have what you need and a

JTA is not necessary. Of course, this assumes the curriculum was established in some sort of rational way.

- Similar to an established curriculum, sometimes the content that must be covered in an exam has been codified in some other way such as legislation. In this case your exam will need to be aligned to this source. You have no choice.

- Finally, exams that cover very specific topics may not need a JTA. For example, an exam for how to use a simple app or how to operate a simple machine or follow a well-defined process. The key here is that the content is highly specific and probably narrow in focus.

Types of JTA >>>

There are several **Types** of – or ways to think about a – JTA

- > Task-based ... what do incumbents do in the role?
- > Knowledge-based ... what do candidates need to know?
- > Skills-based ... what skills do incumbents need to have to perform effectively?
- > Competency-based ... what competencies do candidates need?

>>> These **types** may not be mutually exclusive <<<

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JTAs can be categorized or thought of in several different ways

...

- We might focus on literal tasks that a practitioner is expected to perform in the role or job.
- We might focus on information or knowledge that the candidate is expected to know or have learned in a course
- We could think about the types of skills required
- We could think in terms of the competencies necessary for success

These are all ways of characterizing the data we want to gather during a JTA. I think it's important to note that most JTAs are not purely any of these types.

- It's extremely common to assess several or all of the above categories in a single exam.

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These different types are often assessing different cognitive dimensions ... knowledge-based asks for recall while skills-based may require analysis or synthesis skills. We're not going to go into any more detail here other than to say these types are not mutually exclusive and a single JTA can use any or all of these categories as needed.

The slide features a purple and blue gradient background with abstract wave patterns. At the top left, the title 'Anatomy of a JTA: Role Definition >>>' is displayed in white. Below the title, a dark purple bar contains a list icon and the text 'Defining the Role is critical'. A larger dark purple box below this contains three bullet points, each starting with a white right-pointing chevron. In the bottom right corner, there is a speaker icon and the 'CERTIVERSE' logo with a stylized 'U' icon.

Anatomy of a JTA: Role Definition >>>

Defining the Role is critical

- > The role definition serves as the basis for creating relevant tasks
- > Must be accurately and clearly defined
- > SMEs must understand the role

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Let's talk about the constituent parts of a JTA. To begin, we need to define the role we want to gather data about.

- The role definition is the basis for everything else we do from here on out
- It needs to be concise and accurate. You want the role definition crystal clear.
- This is because, ultimately, the subject matter experts participating in and contributing to this JTA must have a shared understanding of the role ... its

scope, responsibilities, etc. You need them on the same page. If your SMEs have differing ideas about the role, their contributions will be much less useful and the effort to complete the JTA will increase.

Anatomy of a JTA: Data Elements >>>

☰ A JTA has 2 primary data elements

> Tasks

- > Many names for this ...Task Statements, Learning Outcomes, Learning Outcome Statements, Objectives Learning Objectives, etc., etc., etc., etc., etc., etc., etc., etc.
- > Should be written clearly and in a specific way
- > Be understandable by subject matter experts from other organizations

> Domains

- > Assigned once a task is written
- > [Often] more than one is assigned where the task relates to multiple domains

Once we engage our SMEs, we'll be asking them to contribute 2 primary classes of data ...

- The first are Tasks.
 - Again, we call them tasks, but they go by many names ...

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Anatomy of a JTA: Phases >>>



A JTA has 3 phases

- > Elicitation - results in ...
 - > the set of [conditional] tasks describing the activities performed in the job role
 - > [often] a set of [conditional] domains used to group the tasks into broad content areas
- > Survey - results in ...
 - > a set of survey response data or **Results**
- > Analysis - results in ...
 - > identification of critical tasks
 - > based on critical tasks, identification of content domains that should be assessed

Finally, let's discuss the 3 phases of a JTA ...

- First, Elicitation. In this phase we engage a set of Subject Matter Experts to provide the set of tasks performed in the role.
 - The result is a set of conditional tasks. These are conditional in that they will be subject to analysis in a later phase.
 - Likewise, we have domains, also conditional subject to the final analysis
- Second, we administer a survey. We want a second - and larger, more representative - set of SME eyes on the Tasks.
 - The survey asks the SMEs to rate the tasks on various dimensions. The output of the survey is these ratings plus, in many cases, some data about the respondents.

- Third, we analyze the results
 - The analysis lets us identify the consensus “critical tasks” and weeds out those not deemed critical
 - Knowing the critical tasks means we also know the critical domains. These domains will serve as the foundation for the next phase of the testing project ... the Exam Blueprint. We'll cover exam blueprints in the future.

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Till next time ...

A portrait of a man with glasses and a red plaid shirt, looking directly at the camera. The background is blurred.

That's it for part 1! In part 2 we'll go deeper into the details of a JTA. More about the phases and elements as well as best practices.

Thanks for watching ... see you in the next lesson!