

Intro to Test Writing



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Protocols

EyeDetect Testing Protocols

Protocol	Total Topics	Comparison Q	Question Type	Neutral Q	Target Issues
DLC	1	Directed Lie	T / F Statements	Math	R1: Theft allegation R2: Directed lie (In my entire life)
DLC2	1	Directed Lie	Y / N Questions	Math	R1: Theft allegation R2: Directed lie (In your entire life)
Hybrid DLC	1	Directed Lie	Y / N Questions	Math	R1: Theft allegation R2: Directed lie (In your entire life)
MCT	3-4	Relevant Comparison	T / F Statements	Math	R1: Illegal drug use R2: Theft of items valued more than \$300 R3: Serious crimes R4 (Comparison): Terrorism
Audio MCT	3-4	Relevant Comparison	T / F Statements	Math	R1: Illegal drug use R2: Theft of items valued more than \$300 R3: Serious crimes R4 (Comparison): Terrorism
Hybrid MCT	4	Relevant Comparison	Y / N Questions T / F Statements	Math & general knowledge	R1: Illegal drug use R2: Theft of items valued more than \$300 R3: Serious crimes R4 (Comparison): Terrorism
RCT	2	Relevant Comparison	T / F Statements	Math & general knowledge	R1: Illegal drug use R2 (Comparison): Violent crimes

Accuracy

	Protocols	Mean Accuracy
EyeDetect	DLC	88%
	DLC2 (7% INC)	87%
	RCT	86%
	MCT	88%
	Audio MCT	86%
EyeDetect +	Hybrid DLC (8% INC)	89%
	Hybrid MCT	91%

Protocols – Screening vs Diagnostic

Screening: Generalized questions in the absence of a known incident.

- **Example: Use of illegal drugs over the past 2 years**



Diagnostic: Specific questions when there is a known incident.

- **Example: Rob the bank on March 15th**



Directed Lie Comparison (DLC) Test

- Diagnostic / investigation - sometimes screening
- Like DLST in polygraph
- Single-Issue or one Relevant Question
- Directed Lie Questions
- Simple math
- Greater challenge to goal of passing = bigger physiological reactions
- If reaction to DL > RQ, then **Credible**
- If reaction to RQ > DL, then **Deceptive**



Three DLC Protocols

DLC

- T / F Statements
- 15-minute test

DLC2

- Y / N Questions
- 20-minute test
- 22-second break after each question

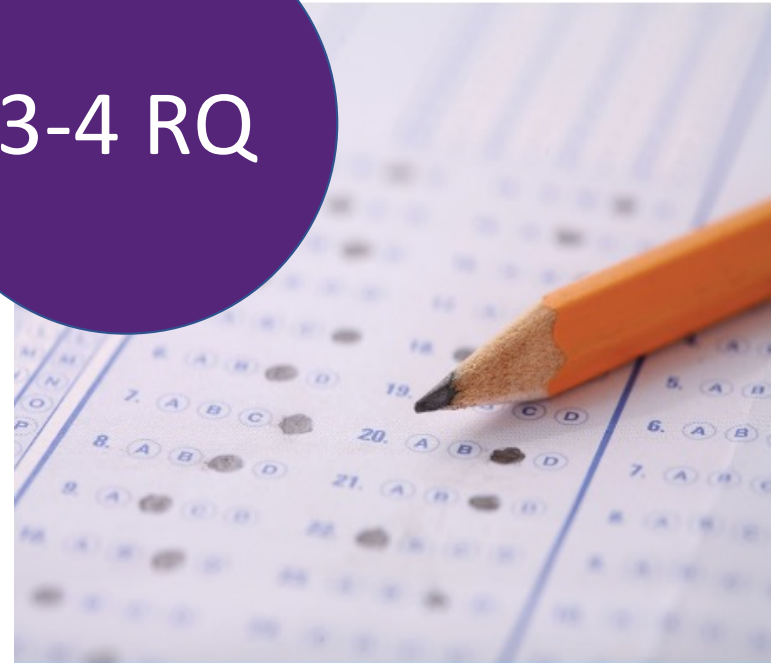
Hybrid DLC

- Like DLC2 but administered with a Physio Tracker v2

Multi-Issue Comparison Test (MCT)

- Screening primarily
- 3 to 4 topics
 - 2 or 3 relevant
 - 1 comparison
- Comparison Question
 - Probable truth
 - Low BRG (likelihood of guilt)
 - Most severe consequence
 - Plausible or salient to examinee
 - No crossover with RQ's

3-4 RQ



Multi-Issue Comparison Test (MCT)



- Simple math - return examinee to baseline.
- Issues are scored individually.
- If reaction to RQ > CQ, then **deceptive.**
- If reaction to CQ > RQ, then **credible.**

Three MCT Protocols

MCT

- T / F Statements
- 30-minute test

Audio MCT

- Questions are read audibly
- No reading required by examinee
- T / F Statements

Hybrid MCT

- Polygraph session: Y / N questions and 22-second interval
- EyeDetect session: T / F statements and no interval
- 50 to 55-minute test
- Administered with Physio Tracker v2

Relevant Comparison Test (RCT)

- 1 relevant and 1 comparison
- Originally developed for polygraph by Dr. Kircher in 2001
- Single topic screening and diagnostic
- Neutral statements combined with relevant questions
- Separate math sessions
- Comparison Question
 - Low BRG (likelihood of guilt)
 - Most severe consequence
 - Plausible or salient to examinee
 - No crossover with RQ's



1 RQ

Test Creation Process

Test Creation Process Overview

1	Gather information
2	Determine target behavior(s)
3	Select test protocol
4	Determine relevant definitions and examples
5	Create new test in the online test editor
6	Write pretest instructions
7	Write questions/statements
8	Balance questions/statements
9	Review and edit
10	Assign test and select BRG

Gather Information

Gather Information

Considerations

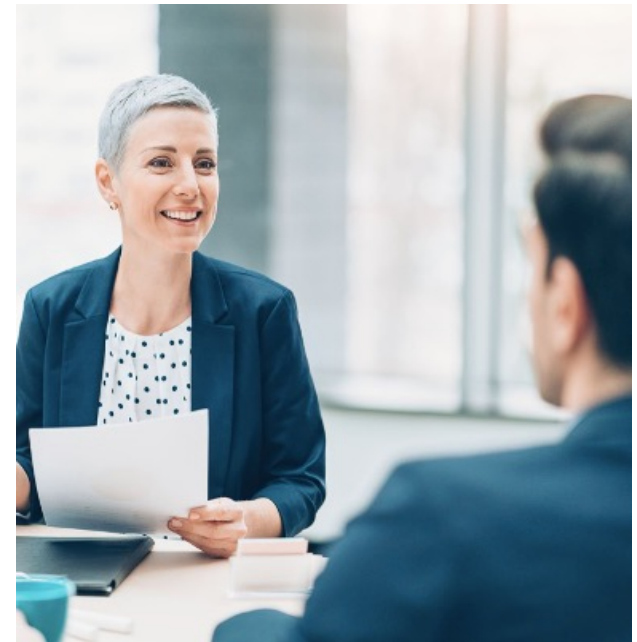
- Is this a screening or diagnostic test?
 - Screening = no known allegation (pre-employment, employee, maintenance, infidelity, etc.)
 - Diagnostic = known allegation (test on a specific allegation, accusation, or incident)
- Who requested the test?
- Who will take the test?
- Which behaviors are of most concern?



Gather Information

Screening Considerations

- If the examinee makes pretest admissions, will you proceed to test?
- What admissions, if any, will be considered an automatic disqualifier?
- If a pre-employment hiring, at what point in the process will EyeDetect be incorporated?
- If ongoing testing for current employees (maintenance test), how often will you test?
- What action will be taken if the examinee fails? Will you give an additional single-issue tests for failed topic?





Diagnostic Considerations

- What are the case facts?
- Who will be tested (suspect, witness, or victim)?
- What connects the examinee to the crime?
- What did the accused report?
- What did the victim report?
- What did the witness report?
- Does the accused have a known history of the alleged behavior?
- Is there any secondary evidence?

Determine Target Behavior(s)

Determine Target Behavior(s)



Good questions = good test



Bad questions = **bad** test

Determine Target Behavior(s)

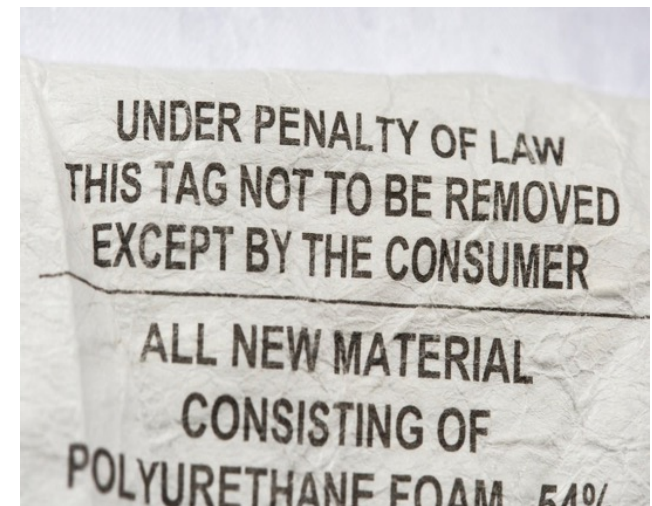
- Tests are about Events.
- Indirect involvement could cause test failure.
- Poorly designed and broad questions have higher failure rates.
- Choose good RQ to avoid high failure rates.



Determine Target Behavior(s)

Someone says, “But he passed a polygraph!”

- Ask: What was the RQ?
- Is it salient to the crime?
- What if the RQ was: Did you cut off those mattress tags?



Determine Target Behavior(s)

Characteristics of good test questions

- 1 Focus on a specific actions or behaviors
- 2 Focus on the examinee's experience/action not others
- 3 Clear and concise (not subjective)
- 4 Use timeframes to narrow the scope
- 5 Consider pre-test admissions (direct question vs indirect)



Determine Target Behavior(s)

Specific actions or behaviors

- Tests are about past actions, behaviors, and events.
- They are NOT knowledge-based.
- Actions or behaviors should be concrete and easily defined.
- Focus on actions or behaviors of most concern.

Determine Target Behavior(s)

Actions or behaviors include:

- Did
- Saw
- Heard
- Touched
- Etc.



Determine Target Behavior(s)



Focus on the Examinee's Actions

- What did the examinee do, hear, see, touch, etc.?
- Do NOT ask about someone else's actions
- Examples

Did that woman tell you to stop during sex?

Did you hear that woman tell you to stop during sex?



Determine Target Behavior(s)

Clear and Concise

- Clear, unmistakable meaning
- Less verbiage
- Example

Were you involved in stealing between \$200 and \$250 from the Quick Mart yesterday at 2 a.m.?

Did you take the money reported missing from that Quick Mart yesterday?



Determine Target Behavior(s)

No Room for Doubt or Reasoning

- Examinee should not wonder if they are guilty
- No subjectivity - can it be interpreted differently by someone else?
- Example

Did you **cause** that head injury to that boy?

Did you **physically inflict** that head injury on that boy?



Determine Target Behavior(s)

Add Qualifiers or Time Frames

- Narrow scope of question
- Examples
 - **In the past 2 years**, have you used illegal drugs?
 - Have you had sexual contact with anyone **besides your spouse** since **you married**?
 - Did you touch that woman's breast **in that hospital room**?

Determine Target Behavior(s)

Consider pretest admissions

- Direct questions are better than indirect or withholding (see next slides)
- Remember, it is NOT a memory test
- However, there are times when indirect tests are needed/used



Determine Target Behavior - Direct vs Indirect

Direct: No admissions or confessions made

Screening Examples

- (T/F) I have not used illegal drugs in the past 5 years.
- (T/F) I did use some illegal drugs in the past 5 years.
- (Y/N) Have you used any illegal drugs in the past 5 years?
- (Y/N) Did you avoid using illegal drugs in the past 5 years?

Investigation Examples

- (T/F) I did not steal the money reported missing by that man.
- (T/F) I admit to stealing some of the money reported missing by that man.
- (Y/N) Did you steal the money reported missing by that man?
- (Y/N) Are you innocent of stealing the money reported missing by that man?

Determine Target Behavior - Direct vs Indirect

Indirect (Withholding): Admission/confession made pre-test

Screening Examples - not as accurate





- (T/F) I **reported** all times I used illegal drugs in the past 5 years.
- (T/F) I have **left out** a time a used illegal drugs in the past 5 years.
- (Y/N) Are you **hiding** a time you used illegal drugs in the past 5 years?
- (Y/N) Did you **report** all times you used illegal drugs in the past 5 years?

Investigation Examples – not as accurate

- (T/F) I was **honest** in my report to the police.
- (T/F) I **lied in my report** to the police.
- (Y/N) Did you tell the complete truth in **report** to the police?
- (Y/N) Did you leave anything out of your **report** to the police?

Determine Target Behavior(s)

Don'ts

-  Ask about intent, desires, or emotions
-  Use accusatory or assuming language
-  Emotionally charged or judgmental terms
-  Use legal terms

Determine Target Behavior(s)

Don't ask about intentions, desires, or emotions.

- Ask about past actions or behaviors.
 - Not about the why (intent)
 - Not about future desires
 - Not about emotions or opinions
- Bad examples
 - Are you **satisfied** with your current salary?
 - Do you **intend** to divorce your spouse after getting married?
 - Did you **want** to cheat on your spouse with that person?
 - Are you **bored** in your relationship?



Determine Target Behavior(s)

Not Accusatory or Assuming

- Avoid perceptions that indicate that the examinee did or did not do an *unknown* thing
- Do not assume the examinee's actions
- Examples:
 - **After stealing the drugs, did you sell them?**
 - Did you take the drugs reported missing?
 - Did you **bury the body** of that missing woman?
 - Lying about the last time and place you saw that woman?



Determine Target Behavior(s)

Avoid emotional or judgmental terms

- Don't use emotionally charged or judgmental terms
- Examples
 - Molest
 - Mutilate
 - Rip-off
 - Butcher
 - Disfigure
 - Strangle
 - Sodomize



Determine Target Behavior(s)

Avoid legal terms

- Examples
 - Forcible battery
 - Aggravated rape
 - Second degree murder
 - Moral turpitude
 - Tort of negligence
 - Voluntary manslaughter
 - Title IX violation



Determine Target Behavior(s)

Focus on the specific accusation(s)

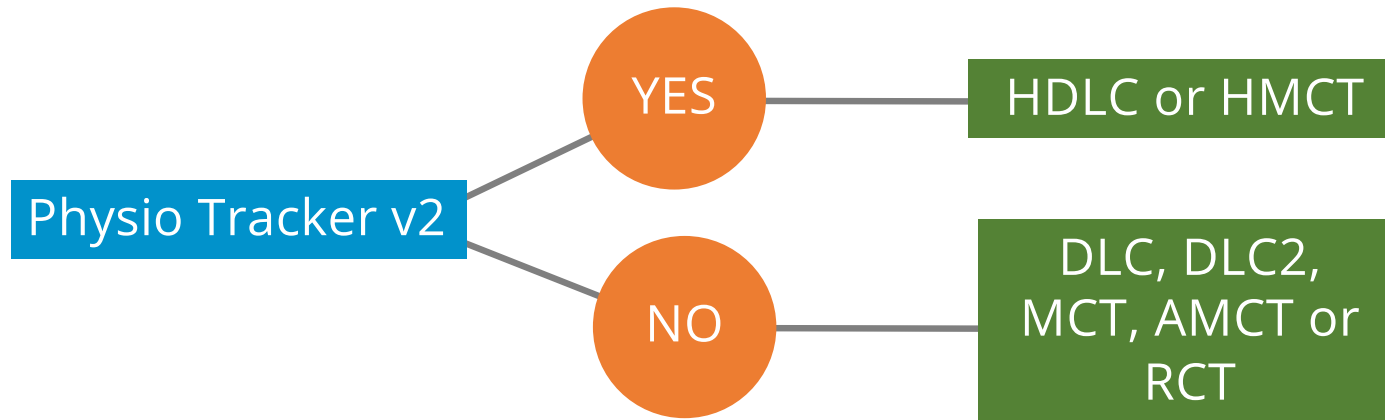
- How actions meet the definition of said crime
- For example:
 - Did you choke that woman with your hands?
 - Did you stab that girl with that knife?
 - Did you shoot that man with that gun?
 - Did you hear that woman say “stop” during sex?



Determine Testing Protocol

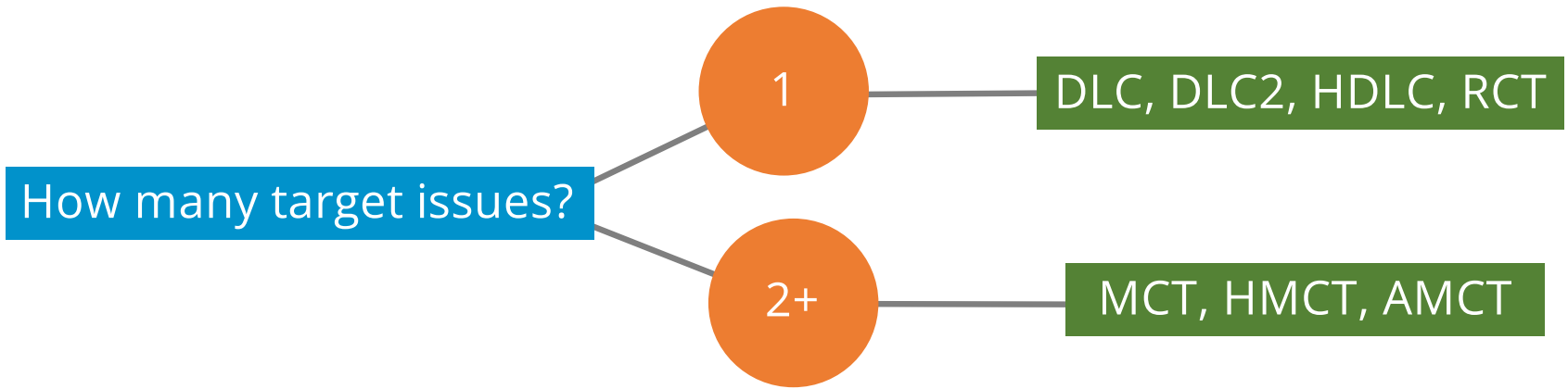
Determine Testing Protocol

Q: Will you use a physio tracker v2?



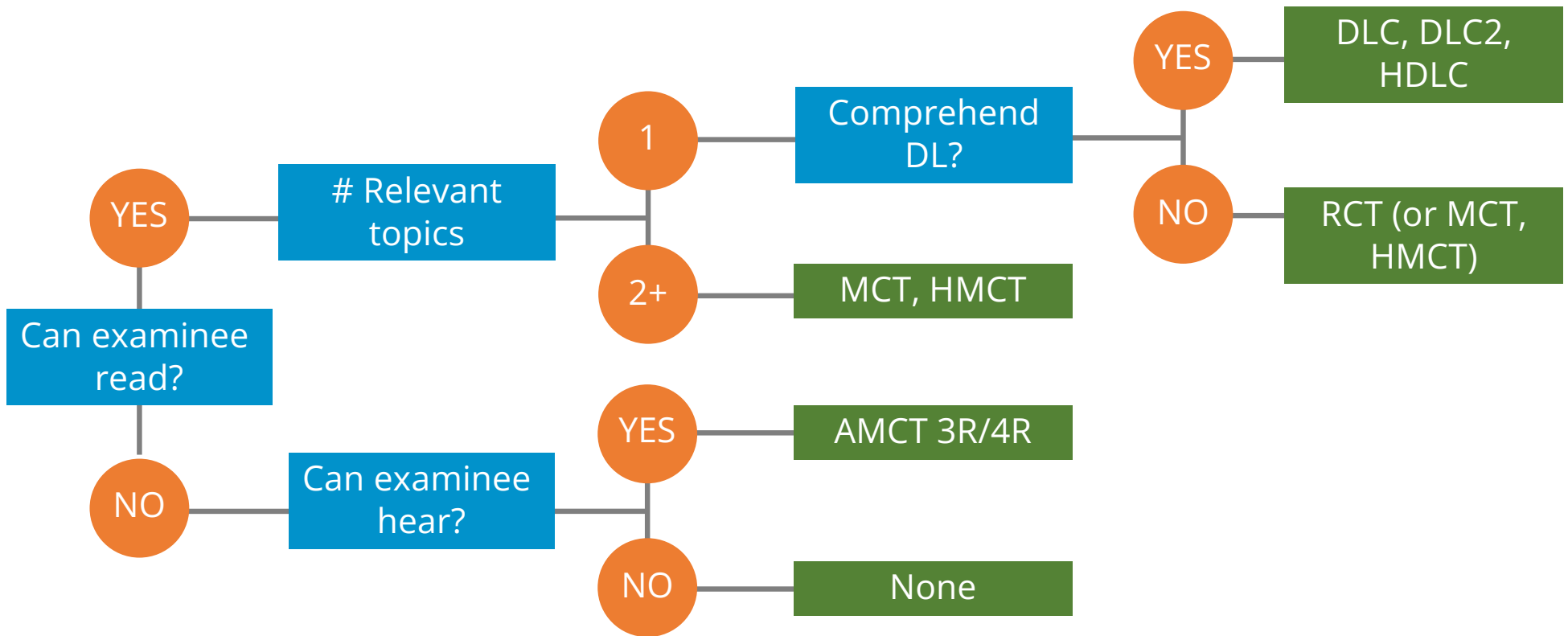
Determine Testing Protocol

Q: How many target issues are there?



Determine Testing Protocol

Q: What is the examinee's level of comprehension?



Determine Testing Protocol

Comprehension Chart

Minimum Capability	Protocols	Test Questions
Hear	AMCT	Read by digital voice
Read	RCT, MCT	Examinee reads questions
Read & Hear	HMCT	Part 1 – Examinee reads and listens to digital voice Part 2 – Examinee reads questions
Read & Understand Directed Lie	DLC, DLC2, HDLC	Examinee reads and listens to digital voice

Determine Testing Protocol - Language

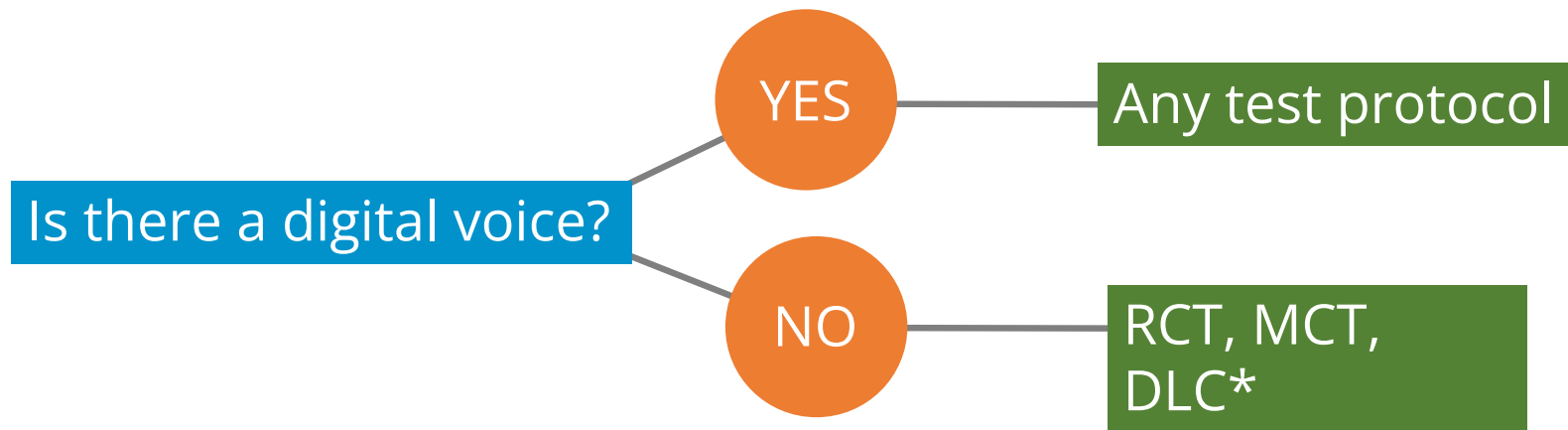
Which language should be used for the test?

- What is the examinee's first learned language?
- Is test translation needed?
- Are there cultural issues?
- Are there language nuances? Ex: steal or nick



Determine Testing Protocol

Q: Is a digital voice available?



Determine Testing Protocol

Digital Voice Requirements	Protocol	Description	TTS on Questions
Required	DLC2	Test will not function without digital voice	Yes
	HDLC	Test will not function without digital voice	Yes
	HMCT	Y/N section of the test will not function without digital voice	Part 1: Yes Part 2: No
	AMCT	Test not possible without a digital voice as no text is shown, only instructional images	Yes
Recommended	DLC	Accuracy will lower without a digital voice	Yes
Not Required	RCT	If there is TTS, then the digital voice will read the pre-test instructions	No
	MCT	If there is TTS, then the digital voice will read the pre-test instructions	No

Determine Testing Protocol

MCT

- Do you need more than one test topic?
- Do the proposed topics have crossover?
- Is this screening, maintenance, preemployment, etc.?
- Can a viable comparison topic be created?

HMCT

- Do you have a Physio Tracker v2?
- Is polygraph required for legal or other reasons?



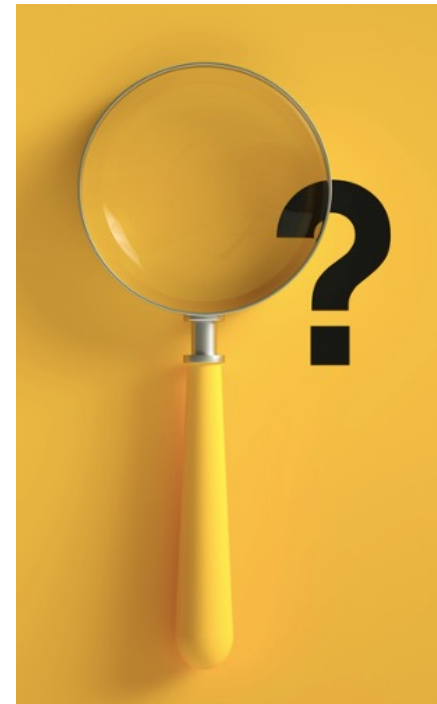
Determine Testing Protocol

DLC/DLC2

- Is one topic sufficient?
- Is the examinee functionally mature for DL?
- Is there a digital voice for the examinee's language?

HDLC

- Do you have a Physio Tracker v2?
- Is polygraph required for legal or other reasons?



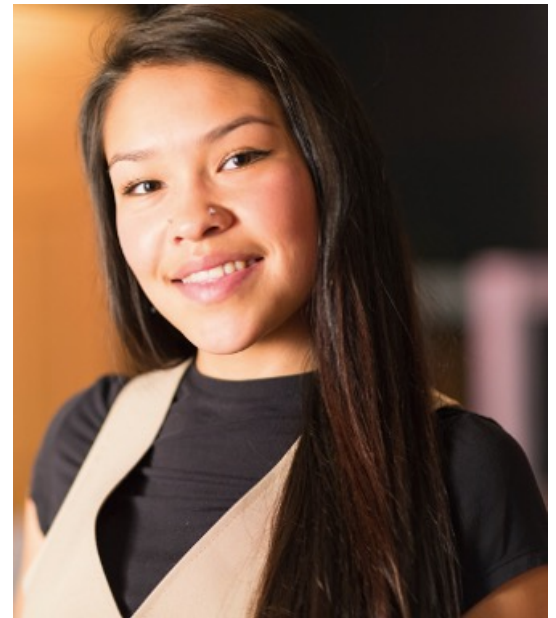
Determine Testing Protocol

Audio MCT

- Is the examinee functionally mature (reading comprehension)?
- Can the examinee hear?

RCT

- One relevant topic
- Examinee does not comprehend DL concept



Determine Comparison Issue

Determine Comparison

- Applies to MCT, HMCT, AMCT, RCT
- Baseline reaction
- Within-subject comparison
- Specific requirements (see next slide)



Determine Comparison



Crime more serious than RQ (consequence)



Face validity for the examinee



Likelihood of guilt = 1%



No cross over with relevant issues

Determine Comparison

Examples

- Ties to terrorist organizations
- Illegal arms trafficking
- Human trafficking
- Ties to gangs or organized crime
- Sabotage
- Espionage
- Use a weapon to force a sex act
- Use date rape drugs to have a sex
- Produce & distribute child pornography

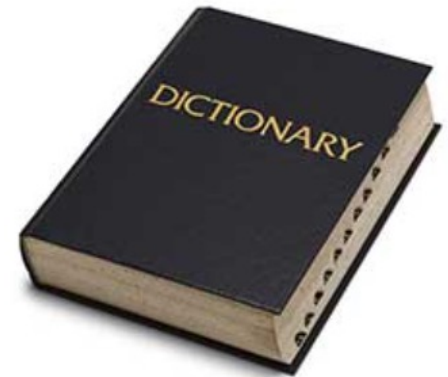


Determine Definitions and Examples

Determine Definitions and Examples

Definitions

- Remove any ambiguity
- Explicitly defining actions and the time frames
- May need to also define what an action isn't



Determine Definitions and Examples

Examples

- Provide specific examples
- Helps to increase clarity
- Give many examples



Determine Definitions and Examples

Illegal Drug Use



Marijuana

Cocaine

Heroin

Amphetamines

Hallucinogens

Opioids

Steroids

Aerosols

Prescriptions for recreational use

Determine Definitions and Examples

Operational definitions

- People - that boy, girl, man, woman; your daughter, son
- Places - that city, that house, that building, that park
- Dates - that day, that night, that month, that year

Examples:

- This test will refer to Sally as **“that girl.”**
- This test will refer to John as **“your son.”**
- This test will refer to January 23, 2022, as **“that night.”**
- This test will refer to the \$100 reported stolen as **“the money reported missing.”**



Determine Definitions and Examples

Crime Acts

- ▶ Against another person
- ▶ Against property
- ▶ Caught or not caught
- ▶ As an adult
- ▶ Examples could include:
 - Assault
 - Robbery
 - Burglary
 - Sexual abuse
 - Domestic violence
 - Organized crime/gang/cartel



Determine Definitions and Examples

Stealing at work

Examples could include stealing...

- Company money
- Company products
- Company equipment such as...
- Raw materials such as...
- *Add minimum value

And, in this test, “stealing” means: (1) taking any of these items yourself, (2) standing as a lookout while someone else steals any of these items, or (3) receiving any of these stolen items.



Determine Definitions and Examples

Sexual contact with a minor as an adult (screening)

In this test, the word "**adult**" means a person 18 years old or older. In this test, a "**minor**" refers to a person less than 18 years old.

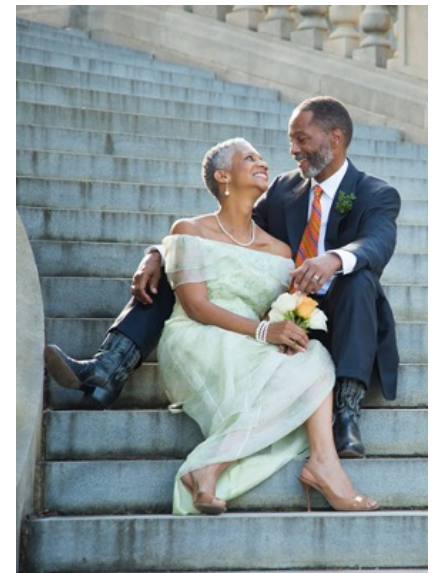
In this test, "**sexual contact**" refers to rubbing or touching another's sexual organs, such as the breasts, buttocks, or genitalia, whether over or under clothing, for the purpose of sexual arousal, sexual gratification, sexual stimulation, or sexual curiosity. Thus, **sexual contact would include** vaginal sex, oral sex, anal sex, and fondling of sexual organs.

And "**sexual contact**" **does NOT include** touching a child for hygiene purposes, such as bathing or diaper changes.

Determine Definitions and Examples

Infidelity – sexual contact

- Anyone besides spouse, partner
- Since marriage
- Sexual contact includes:
 - Vaginal, oral or anal sex
 - Fondling of breasts, vagina, or penis of either person
 - Other sexual contact that causes sexual climax or release
- Sexual contact does NOT include:
 - Flirting or talking
 - Hugging
 - Kissing on the cheek
 - Texting, emailing, direct messaging



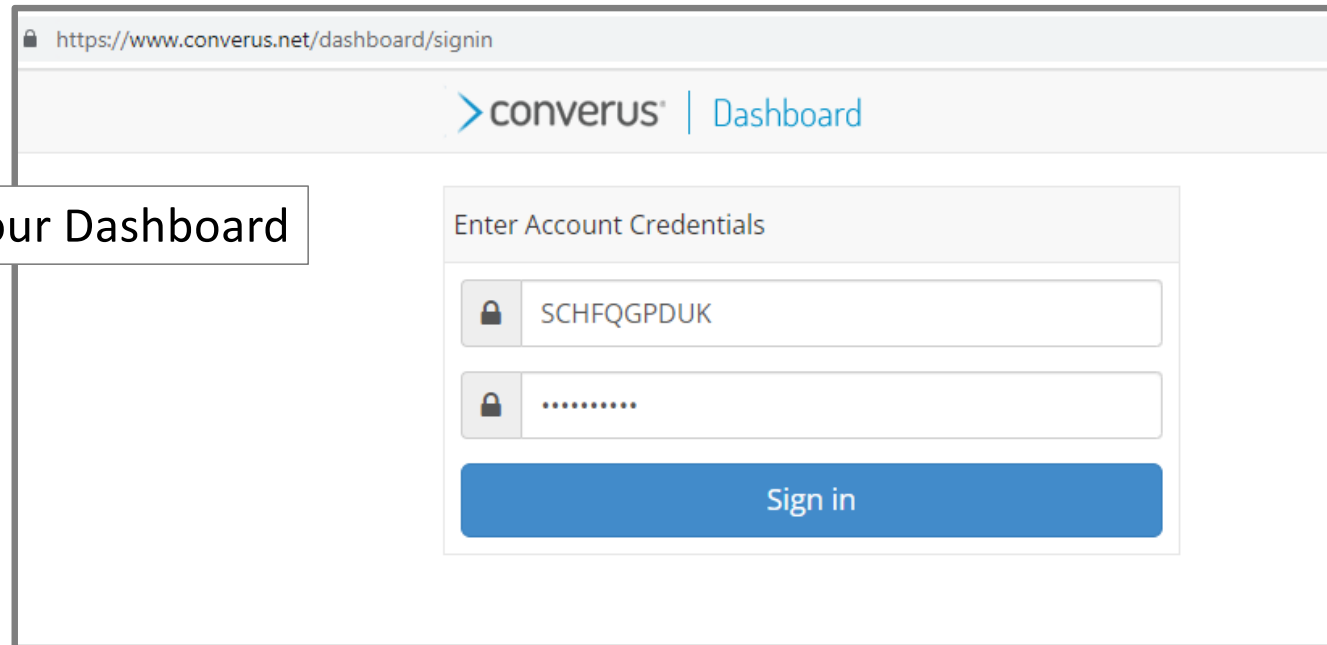
Create test in test editor

Create test in test editor

- Online tool
- Create/Clone new tests
- Given access after course completion

Create test in test editor

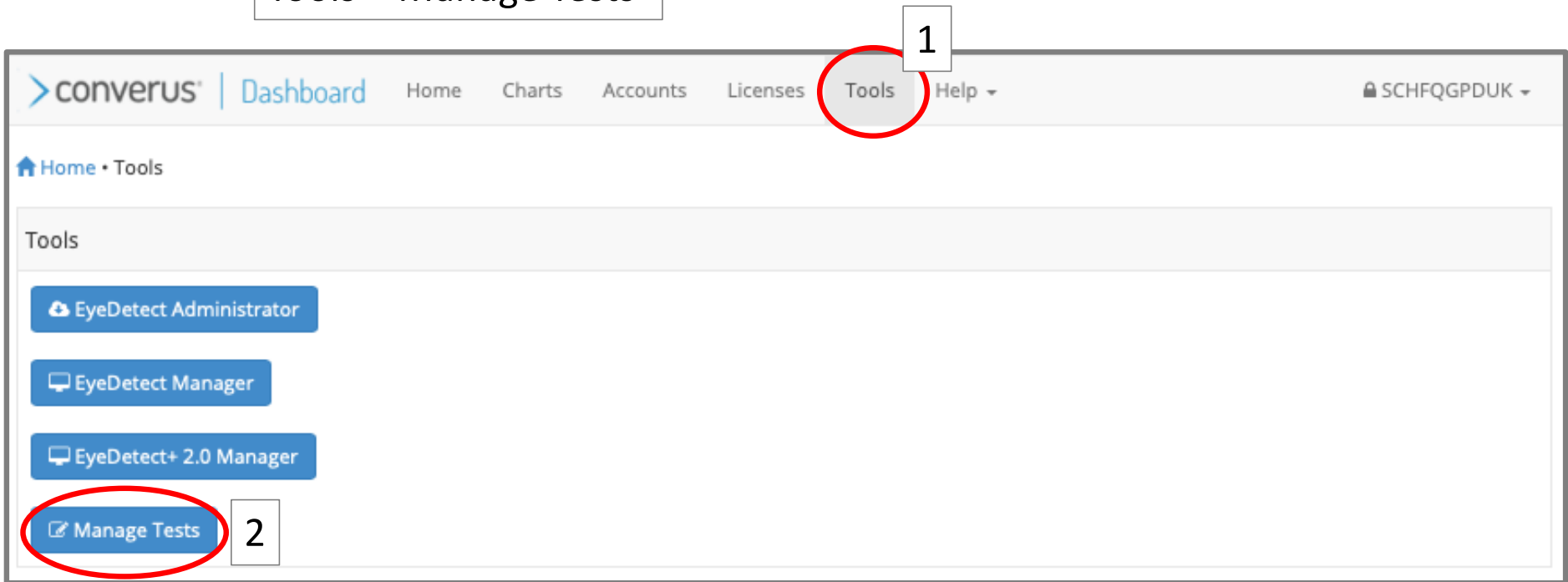
Login to your Dashboard



The screenshot shows a web browser window with the URL <https://www.converus.net/dashboard/signin>. The page header includes the Converus logo and the text "Dashboard". The main content area is titled "Enter Account Credentials" and contains two input fields: one for a username (containing "SCHFQGPDUK") and one for a password (containing "....."). Below the input fields is a blue "Sign in" button.

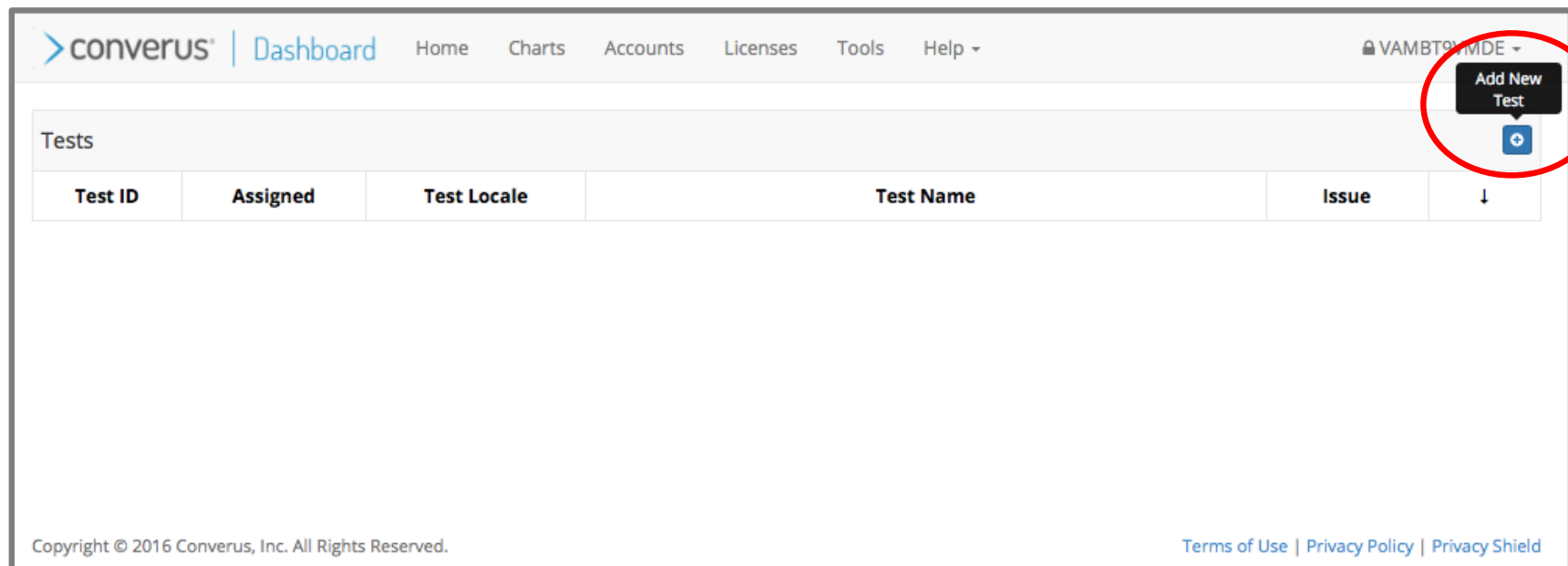
Create test in test editor

Tools > Manage Tests



Create test in test editor

Click on the “blue plus” to create a new test



The screenshot shows the Converus dashboard interface. At the top, there is a navigation bar with the Converus logo, 'Dashboard', and menu items: Home, Charts, Accounts, Licenses, Tools, and Help. On the right side of the navigation bar, there is a user profile dropdown menu for 'VAMBT91MDE' with a red circle around it. Below the navigation bar, there is a section titled 'Tests'. In the top right corner of this section, there is a dark button labeled 'Add New Test' with a blue plus icon below it, both of which are circled in red. Below this button is a table with the following columns: Test ID, Assigned, Test Locale, Test Name, Issue, and a downward arrow. The footer of the dashboard contains the text 'Copyright © 2016 Converus, Inc. All Rights Reserved.' and links for 'Terms of Use', 'Privacy Policy', and 'Privacy Shield'.

Create test in test editor

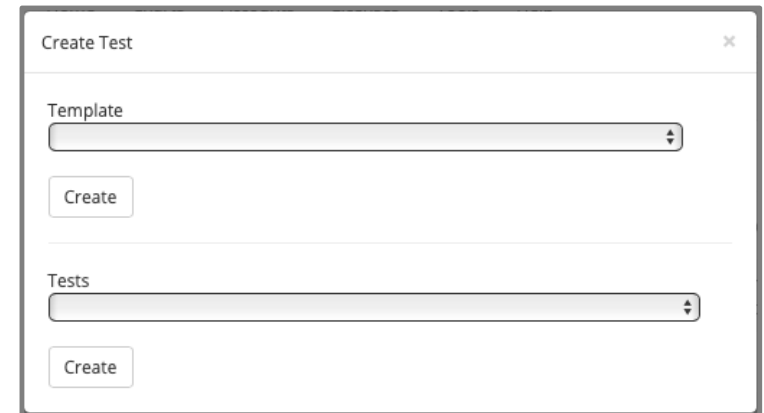
Choose the template or test to copy/clone. Select Create.



Create test in test editor

Things to consider:

- Template or test MUST match desired testing protocol AND language
- Find test with similar topic(s)
- Start with a blank template
- NEVER update an administered test



The screenshot shows a 'Create Test' dialog box. It has a title bar with the text 'Create Test' and a close button (X). Below the title bar, there are two sections. The first section is labeled 'Template' and contains a dropdown menu with a downward arrow and a 'Create' button. The second section is labeled 'Tests' and also contains a dropdown menu with a downward arrow and a 'Create' button.

Create test in test editor

MCT Example

Test Editor (M00005BS01)

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
3850	3825	4000	6731	25	150	2881	175	2906	2731

BRG R1: R2: R3:

Test Name MCT 4R Blank Template (Terrorism comparison)

Issue (R1)

Issue (R2)

Issue (R3)

Issue (R4)

Enter test name and relevant issues

DLC2 Example

Test Editor (S00000VN01)

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
3675	6616	0	0	2941	0	0	0	0	0


BRG R1:

Test Name DLC2 Blank Template (In your entire life)

Issue (R1)

Test Editor (H000001A01) ←

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
6867	7101	6821	6999	234	46	132	280	102	178

 Save

BRG R1: R2: R3:


Test Name **Metro PD Pre-employment**

Issue (R1) **Illegal Drug Use**

Issue (R2) **Theft of items >\$500**

Issue (R3) **Serious Crimes**

Issue (R4) **Terrorism**

 Save

Save regularly.

Write Pretest Instructions

Instructions - MCT

Introduction paragraph

R4 topic paragraphs

- Introduce topic question/phrase
- Definitions if needed
- Examples of needed
- Emphasis on seriousness if guilty

R1, R2, R3 topic paragraph(s)

- Introduce topic question/phrase
- Definitions if needed
- Examples of needed

Summary paragraph

Invitation to confess

Instructions - MCT

- Edit all text in blue
- Write/update pretest instructions
- See example on left

Instructions	Example
<p>This credibility assessment test will ask about your involvement in these four issues: (1) Ties to terrorism (2) INSERT Relevant topic #1 (3) INSERT Relevant topic #2, and (4) INSERT Relevant topic #3.</p>	<p>This pre-employment credibility assessment test will ask about your involvement in these four disqualifying issues: (1) Ties to terrorism (2) Use of illegal drugs in the past 2 years (3) Stealing merchandise that totals more than \$300, and (4) Commission of a serious crime as an adult.</p>
<p>First, we want to ensure that none of our employees have personally been involved with a foreign terrorist organization. Involvement with such groups implies that you have worked with, have supported, or have provided information to further their activities.</p>	<p>First, we want to ensure that none of our employees have personally been involved with a foreign terrorist organization. Involvement with such groups implies that you have worked with, have supported, or have provided information to further their activities.</p>
<p>Examples include groups such as: ISIS, Al-Qaeda, the Taliban, Hamas, or Any other terrorist organization</p>	<p>Examples include groups such as: ISIS, Al-Qaeda, the Taliban, Hamas, or Any other terrorist organization</p>
<p>Terrorists create unrest by attacking law enforcement, military personnel, innocent civilians, and the nation's infrastructure. These organizations have a religious or political agenda with the goal of destroying democratic systems of government or simply creating terror. In the United States, association with terrorist organizations is a serious offense and is punishable by up to 60 years in prison.</p>	<p>Terrorists create unrest by attacking law enforcement, military personnel, innocent civilians, and the nation's infrastructure. These organizations have a religious or political agenda with the goal of destroying democratic systems of government or simply creating terror. In the United States, association with terrorist organizations is a serious offense and is punishable by up to 60 years in prison.</p>
<p>If you have been involved with a terrorist organization, think about the consequences. Last year, terrorists killed an average of 51 people per day. They violate basic human rights and impose harsh penalties or death on anyone who disagrees with them. We are committed to the security and protection of our personnel and citizens. We will pursue and prosecute anyone working on behalf of a foreign terrorist organization.</p>	<p>If you have been involved with a terrorist organization, think about the consequences. Last year, terrorists killed an average of 51 people per day. They violate basic human rights and impose harsh penalties or death on anyone who disagrees with them. We are committed to the security and protection of our personnel and citizens. We will pursue and prosecute anyone working on behalf of a foreign terrorist organization.</p>
<p>Second, this test will ask if you INSERT R1 topic...</p>	<p>Second, this test will ask if you have used illegal drugs in the past 2 years. Specifically, we want to know if you have used any of the following illegal substances within the past 2 years: Cocaine, Crack, Heroin, Opioids, Methamphetamine, Amphetamines, Hallucinogens, or Any other similar hard drug.</p>
<p>R1 Topic paragraph/description</p>	<p>The question of illegal drug use also applies to the use of prescription drugs that are not prescribed to you for recreation use or to get high. This question is also concerned with using Marijuana for recreational use or to get high.</p>
<p>Third, INSERT R2 Topic...</p>	<p>Third, this test will ask if you have stolen merchandise that totals more than \$300.</p>

Instructions - DLC

Introduction paragraph

- State case facts
- What was reported/alleged
- Examinee's claims
- What is of concern

Introduce R1 topic question or phrase

- Definitions if needed
- Operational definitions of identifiers
- Examples of needed

Summary paragraph

- Restate test topic
- Reiterate examinee's claim of innocence
- Emphasize the test is opportunity to prove honesty

Check directed lie phrase

- Needs to be the same in preamble, practice test, instructions and statements

Instructions - DLC

Instructions	Example	Show on report
<p>Pretest instructions - Add introductory explanation... + 🗑️</p>	<p>Explain allegation/main testing topic. For example: There are concerns that you have... You have denied doing... This test will ask if you have...</p>	<input type="checkbox"/>
<p>Pretest instructions - give examples and operational definitions... + 🗑️</p>	<p>Add additional information about the test. If needed, state what was reported/claimed, include definitions, examples, and operational define words.</p>	<input type="checkbox"/>
<p>Pretest instructions - give examples and operational definitions... + 🗑️</p>	<p>Add additional information about the test. If needed, state what was reported/claimed, include definitions, examples, and operational define words.</p>	<input type="checkbox"/>
<p>Pretest instructions - Restate testing topic.. + 🗑️</p>	<p>Again, this test will ask if... This test will give you the opportunity to show that you are being truthful about...</p>	<input type="checkbox"/>
<p>First, you will be asked if you.... + 🗑️</p>	<p>Restate the main testing topic</p>	<input type="checkbox"/>
<p>All of the directed lie questions will start with the phrase, "In your entire life." + 🗑️ When you hear the phrase, "In your entire life," you should immediately recognize that question as one you must lie to.</p>	<p>Make sure to use the same Directed Lie Phrase throughout the entire test. For example "In your entire life" or "In your entire life as an adult" or "In your entire lifetime"</p>	<input type="checkbox"/>
<p>Example: "In your entire life, have you ever broken a rule?" This question starts + 🗑️ with, "In your entire life," so you should recognize it as a question that you should lie to. You should answer this question No to indicate that you have never broken a rule. This, of course, is a lie because everyone has broken a rule at some point in their life.</p>	<p>Make sure to use the same Directed Lie Phrase throughout the entire test. For example "In your entire life" or "In your entire life as an adult" or "In your entire lifetime"</p>	<input type="checkbox"/>
<p>Example: "In your entire life, have you always been honest?" This question starts with, "In your entire life," so you must lie to it. You would answer this question Yes to indicate that you are honest all the time. Since everyone, including you, has been dishonest at some point in their life, this is a lie. + 🗑️</p>	<p>Make sure to use the same Directed Lie Phrase throughout the entire test. For example "In your entire life" or "In your entire life as an adult" or "In your entire lifetime"</p>	<input type="checkbox"/>

Write Test Questions

Write Questions

DLC

- 5 True / False

DLC2/HDLC

- R1 – 3 No
- DL – 1 Yes, 2 No

MCT

- 6 True / False for each relevant topic

AMCT

- 4 True / False for each relevant topic

HMCT

- 3 No for relevant topic
- 1 Yes for each relevant topic
- 4 True / False for each relevant topic

RCT

- 8 True / False for each relevant topic

Write Test Questions

- All statements should be unique – no duplicates
- Each set of relevant questions refer to the same relevant topic
- Relevant topics match topic introduced in preamble
- Time frames/qualifiers mentioned in every question
- Operational definitions used (that woman, child, son, daughter, etc.)
- Clear - no unneeded extra information from preamble

Write Questions

MCT Example

R1 - True	Example
I have not...	I have not used any illegal drugs in the past 2 years.
In the.. I have never..	I have not consumed any illegal drug use in the past 2 years.
I am innocent of...	I am innocent of using illegal drugs in the past 2 years.
I have never...	My past 2 years are free from using all illegal drugs.
In the.. I have not...	In the past 2 years, I have not used any illegal drugs.
I am not someone who has...	In the past 2 years, I have not consumed illegal drugs.
R1 - False	Example
I admit to...	I admit to using illegal drugs in the past 2 years.
I am guilty of...	I am guilty of using illegal drugs in the past 2 years.
Sometime in the... I ...	Sometime in the past 2 years, I used illegal drugs.
I have...	I have been a user of illegal drugs in the past 2 years.
Something I have done is..	Something I have done is use illegal drugs in the past 2 years.
I did...	In the past 2 years, I have used an illegal drug.



Write Questions

DLC Example

R1 - No	Example
Did you ...?	Did you take any of the money reported missing by that man?
Have you ...?	Were you the one who stole any of the money reported missing by that man?
Are you guilty of ...?	Are you guilty of taking any of the money reported missing by that man?
DL (R2) - Yes	Example
In your entire life, have you always been honest with everyone?	In your entire life, have you always been honest with everyone?
DL (R2) - No	Example
In your entire life, have you ever broken a rule or law?	In your entire life, have you ever broken a rule or law?
In your entire life, have you ever made a mistake or error?	In your entire life, have you ever made a mistake?

Balance Questions

Balance Questions

- All statements or questions roughly the same length
- Affects response time
- Adjust to make them about the same length
- Example
 - R1: I did not use illegal drugs in past 5 years. 
 - R3: I have never been *involved in* committed a crime act as an adult. 
- *Adjusted example*
 - R1: I did not use **any** illegal drugs in past 5 years. (add any)
 - R3: I *have* never committed a crime act as an adult. (remove “involved in”)



Balance Questions – Online Test Editor

DLC2 Example

- Absolute difference should be less than 250
- Average Complexity
 - **R1**: 7450
 - **R2**: 7516
- Absolute Differences
 - 7516 (**R2**) – 7450 (**R1**) = 66

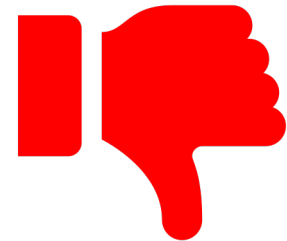


Test Editor (S00000E901)										
Average Complexity				Absolute Differences						
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4	
7450	7516	0	0	66	0	0	0	0	0	

Balance Questions – Online Test Editor

DLC2 Example

- Average Complexity
 - R1: 4550
 - R2: 7516
- Absolute Differences
 - 7516 (R2) - 4550 (R1) = 2966



Test Editor (S00000E901)

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
4550	7516	0	0	2966	0	0	0	0	0

Balance Questions – Online Test Editor

MCT Example

Average Complexity

- **R1**: 8756
- **R2**: 8906
- **R3**: 8985
- **R4**: 8897

Absolute Differences

- 8906 (**R2**) – 8756 (**R1**) = 150
- 8985 (**R3**) – 8756 (**R1**) = 229
- 8897 (**R4**) – 8756 (**R1**) = 141
- 8985 (**R3**) – 8906 (**R2**) = 79
- 8906 (**R2**) – 8897 (**R4**) = 9
- 8985 (**R3**) – 8897 (**R4**) = 88



Test Editor (M000043Z01)

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
8756	8906	8985	8897	150	229	141	79	9	88

Balance Questions – Online Test Editor

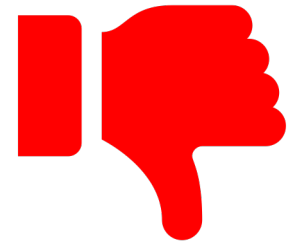
MCT Example

Average Complexity

- **R1:** 7793
- **R2:** 8906
- **R3:** 8985
- **R4:** 8897

Absolute Differences

- 8906 (**R2**) – 7793 (**R1**) = **1113**
- 8985 (**R3**) – 7793 (**R1**) = **1192**
- 8897 (**R4**) – 7793 (**R1**) = **1104**
- 8985 (**R3**) – 8906 (**R2**) = 79
- 8906 (**R2**) – 8897 (**R4**) = 9
- 8985 (**R3**) – 8897 (**R4**) = 88



Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
7793	8906	8985	8897	1113	1192	1104	79	9	88

Test Editor (H000001A01) ←

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
6867	7101	6821	6999	234	46	132	280	102	178

↻

BRG R1: R2: R3:

Test Name	Metro PD Pre-employment
Issue (R1)	Illegal Drug Use
Issue (R2)	Theft of items >\$500
Issue (R3)	Serious Crimes
Issue (R4)	Terrorism

Refresh to reload balance calculations

Review & Edit

Review & Edit

- 1 Second pair of eyes
- 2 Grammar, spelling, and punctuation
- 3 Does it make sense to someone besides you?



Test Editor (H000001A01)

Average Complexity				Absolute Differences					
R1	R2	R3	R4	R1/R2	R1/R3	R1/R4	R2/R3	R2/R4	R3/R4
6867	7101	6821							



BRG R1: 30 R2: 30 R3: 30

Test Name	Metro PD Pre-employment
Issue (R1)	Illegal Drug Use
Issue (R2)	Theft of items >\$500
Issue (R3)	Serious Crimes
Issue (R4)	Terrorism

Click the back arrow to return to the main test manager page.



Review & Edit

Click on test number to edit a test to customize it for your needs.

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	 
S00000VM01	1	en-US	DLC2 Sexual Allegation-John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	 
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	 
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	 

Review & Edit

Click on PDF icon to see a summary of the test.

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	
S00000VM01	1	en-US	DLC2 Sexual Allegation-John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	

Review & Edit

Summary of the test.

H00001A01: Metro PD Pre-employment

Pre-test Instructions
You are about to take two lie detection tests. The first will be a test in which you answer "Yes" and "No" questions.
This pre-employment credibility assessment test for the Police Department will ask about your involvement in these four issues:
(1) Ties to terrorist organizations,
(2) Use of illegal drugs,
(3) Theft of items valued over \$500 as an adult, and
(4) Commission of a crime act as an adult.
First, the Police Department wants to ensure that none of its employees have personally been involved with a foreign or domestic terrorist organization.

Involvement implies that you have worked with, have supported, or have provided information to further their activities.
Examples include organizations such as:
• ISIS,
• Al-Qaeda,
• the Taliban,
• Hamas, or
• Any other domestic or foreign terrorist organization.
Terrorists create unrest by attacking law enforcement, military personnel, innocent civilians, and the nation's infrastructure.

These organizations have a religious or political agenda with the goal of destroying democratic systems of government or simply creating terror.

They frequently violate basic human rights and impose harsh penalties or death on anyone who disagrees with them.
In the United States, associating with a terrorist organization is a serious offense and is punishable by many years in prison.

We are committed to the security and protection of our personnel and citizens.

We will pursue and prosecute anyone working on behalf of a domestic or foreign terrorist organization.
Second, this test will ask about your use of illegal drugs within designated time frames. Specifically, the Police Department wants to know if you have used any controlled, illegal substances within the past 5 years.
Examples of controlled substances include:
• Cocaine,
• Meth,
• Amphetamines,
• Ecstasy,
• Heroin,
• Hallucinogens,
• Barbiturates,
• GHB, or
• Any other similar "hard" drug.
The Police Department also wants to know if you have used marijuana within the past 12 months. This includes both
• marijuana and
• synthetic marijuana.

With marijuana, it does not matter if you have lived or were in a jurisdiction where recreational marijuana use is legal. For this test, marijuana use in the past 12 months is the issue.
Third, this test will ask if, as an adult, you have committed a theft of any items worth more than \$500.

A "theft" is to take without permission or steal another person's property, products, merchandise, or money, without the owner's consent, and with the intention of depriving the owner of it permanently.
This includes stealing from a business, from a previous place of employment, or from another person.

And for this test, the \$500 value may be from a single event or a combination of several thefts committed as an adult, as part of a common scheme, or episodes of similar thefts.
Lastly, this test will ask if you have committed a crime act, as an adult. Crime acts include criminal acts against a person or against property, that could result in your arrest or conviction.

This includes any crime acts committed as an adult, whether you were caught or not caught. This test is not concerned with crimes you committed as a minor, unless they would have resulted in a felony charge.
Examples of crime acts could include:
• Robbery, which is to take property from another person by force,
• Burglary, which is to enter a building illegally to commit a crime,

Review & Edit

Pretest Instructions Review

- 1 Are pretest instructions in correct format?
- 2 Do pretest instructions clearly introduce test topic(s)?
- 3 Do pretest instructions include definitions and examples where needed?

Review & Edit

Review Statements and Questions

- 1 Do they match the pretest instructions?
- 2 Do they focus on a specific action/behavior?
- 3 Is there the correct number of true, false, yes, and no?
- 4 Are they all about the same length?

Review & Edit

For MCT, HMCT, AMCT, RCT

- 1 Do the test topics have any crossover?
- 2 Is the comparison topic viable and meet requirements?

For DLC, DLC2, HDLC

- 1 Is the directed lie phrase consistent throughout the test?

Assign Test & Select BRG

Assign Test & Select BRG

BRG = Base Rate of Guilt or Prior probability

- *Estimated* percentage of guilty people in testing population
- BRG may vary based on the type of test (diagnostic vs screening), testing topic(s), testing population, location, etc.
- To estimate, use historic test failure rates, actuarial or experience tables, and/or national statistics
- Adjusting the BRG essentially increases/decreases the sensitivity of the testing algorithm when scoring tests











Assign Test – Select BRG

- What is the prior probability of guilt?
 - History of guilt?
 - Is there evidence?
 - Pass/fail previous test?
 - What's the historical pass/fail percentage?
- When in doubt: Use the Converus BRG Guide
- Choose subaccount, assign BRG, and sync Station

Assign Test & Select BRG

From the home page, click the blue box under “Assigned” on the correct test.

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	 
S00000VM01	1	en-US	DLC2 Sexual Allegation-John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	 
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	 
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	 

Assign Test – Select BRG

Check the subaccount you wish to assign the test to and set the BRG. Select **update**. Then Sync the station to download and administer the test.

The screenshot shows the 'Assign Test' dialog box overlaid on the Converus dashboard. The dialog contains a table with the following data:

Test ID	Assigned	Test Locale	Subaccount	BRG	BRG	BRG	
NFGH8VHJGU			Drug Court	<input type="checkbox"/>	MCT.25	MCT.25	MCT.25
NFGH8DKWBH			Investigations	<input type="checkbox"/>	MCT.25	MCT.25	MCT.25
NFGH8PDJE4			Pre-employment (hiring)	<input checked="" type="checkbox"/>	MCT.25	MCT.25	MCT.25

The 'Update' button is located at the bottom right of the dialog box.

Assign Test – Select BRG

Assign Test







Test ID	Assigned	Test Locale	Test ID	Description	Checkbox	Dropdown
M00005BS01	0	en-US	NFGH8VHJGU	Drug Court	<input type="checkbox"/>	DL2.50
S00000VM01	1	en-US	NFGH8DKWBH	Investigations	<input checked="" type="checkbox"/>	DL2.50
S00000RP01	1	en-US	NFGH8PDJE4	Pre-employment (hiring)	<input type="checkbox"/>	DL2.50
M00004UK01	1	en-US				

Update

Test Manager











Test Manager

Click on Trash icon to Delete/Archive a test.

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	 
S00000VM01	1	en-US	DLC2 Sexual Allegation-John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	 
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	 
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	 











Test Manager

Test Locale = test language

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
D00003P502	0	es-MX	Especificas_Robo de unidad	Robo de unidad	Paige Chipman	 
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	 
S00000VM01	1	en-US	DLC2 Sexual Allegation-John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	 
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	 
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	 

Test Manager

Author

Test ID	Assigned	Test Locale	Test Name	Issue	Author	
D00003P502	0	es-MX	Especifica_ Robo de unidad	Robo de unidad	Paige Chipman	 
M00005BS01	0	en-US	MCT Pre-employment Law Enforcement	Drug use past 3 years / Commit a sex crime / Commit a crime act as an adult / Ties to terrorism	Paige Chipman	 
S00000VM01	1	en-US	DLC2 Sexual Allegation- John Smith	Did you hear that woman say stop during sex?	Eliza Sanders	 
S00000RP01	1	en-US	DLC2 Bob - choking wife	Choking wife	Paige Chipman	 
M00004UK01	1	en-US	ZYX Security - drugs, stealing, violent crimes	Drug use / Stealing / Violent crimes	Paige Chipman	 

Live Demo's of Test Manager

www.converus.com/videos

Thank you!

