

# EON ASSIST IQ

## The AI-Native Standard for Operational Readiness & Validation.

- **The Mission:** To transform subjective, unscalable human assessment into a precise, automated science.
- **The Core Logic:** We leverage Vision AI to capture the "Gold Standard" from a single expert video and use it to infinitely scale assessment across the global workforce.
- **The Promise:** "One Expert. Infinite Assessments." We replace the bottleneck of 1:1 trainer oversight with an "Always-On" AI evaluator that ensures 100% compliance visibility.

UNASSISTED / TRADITIONAL ASSESSMENT



AI-ASSISTED & AUTOMATICALLY ASSESSED  
(EON ASSIST IQ)



UNASSISTED / TRADITIONAL ASSESSMENT



STEP 3: TIGHTEN BOLT  
- CORRECT STEP

AI GOLD STANDARD VALIDATION

- ✓ STEP COMPLETION:  
100%
- ✓ TIMING:  
+0:15s (vs Expert)
- ✓ COMPLIANCE:  
CHECKED

AI-ASSISTED & AUTOMATICALLY ASSESSED  
(EON ASSIST IQ)



# THE SCALABILITY BOTTLENECK & SUBJECTIVITY TRAP

- **The Disconnect:** Traditional training relies on manual documentation that varies by author, creating inconsistent standards across facilities.
- **The Constraint:** Expert trainers are physically limited. They can only evaluate one trainee at a time, causing scheduling delays and reducing capacity.
- **The Risk:** Human evaluation is inherently subjective. Two different supervisors may grade the same safety violation differently, leading to "Safety Compliance Gaps" where critical errors are missed.
- **The Result:** A lack of verifiable data. Paper-based audit trails fail to capture the *reality* of execution for regulatory compliance.





# A UNIFIED VALIDATION PLATFORM

- **Automated Extraction:** Assist IQ ingests raw video from experts and uses Computer Vision to extract timestamped steps, tools, and PPE requirements automatically.
- **The Digital Thread:** It converts a static video into a structured "JSON Standard"—a machine-readable procedure that defines the "Correct," "Incorrect," and "Critical" states of operation.
- **Tri-Modal Workflow:** The platform seamlessly connects the **Content Factory** (SOP creation), the **Assessment Engine** (Trainee testing), and the **Review Dashboard** (Human oversight) into one continuous loop.

AI PRISM  
GEMINI VISION



SOP DOCUMENT  
CONTENT FACTORY



SAFETY RULES  
CRITICALITY DEFINITION



ASSESSMENT CRITERIA  
SCORING ENGINE





# UNIFIED VALIDATION PLATFORM

AUTOMATED EXTRACTION

AI PRISM  
GEMINI VISION

DIGITAL THREAD



VIDEO FILE



SOP DOCUMENT  
CONTENT FACTORY



SAFETY RULES  
CRITICALITY DEFINITION



ASSESSMENT CRITERIA  
SCORING ENGINE





# FROM VIDEO TO STANDARD: THE "GOLD STANDARD" ENGINE

- **The Innovation:** Manually writing SOPs is slow and error-prone. Assist IQ solves the "Documentation Overhead" by watching the work being done.
- **Semantic Extraction:** Using Vision AI, the system analyzes the expert's movements to identify specific actions, timing (MM:SS), and safety precautions.
- **Criticality Definition:** It allows the expert to tag specific moments as "Critical" (Safety-Sensitive) or "Minor" (Quality), creating a weighted logic for future assessments.



STEP 3: ROTATE VALVE  
- TIME 00:45  
- TOOL: WRENCH





root@kali:~#

File	Permissions	Owner	Group	Size	Modified
/etc/passwd	-rw-r--r--	root	root	1024	2023-10-27 10:00
/etc/shadow	-rwxr-xr-x	root	shadow	1024	2023-10-27 10:00
/etc/group	-rw-r--r--	root	root	1024	2023-10-27 10:00
/etc/passwd	-rw-r--r--	root	root	1024	2023-10-27 10:00
/etc/shadow	-rwxr-xr-x	root	shadow	1024	2023-10-27 10:00
/etc/group	-rw-r--r--	root	root	1024	2023-10-27 10:00
/etc/passwd	-rw-r--r--	root	root	1024	2023-10-27 10:00
/etc/shadow	-rwxr-xr-x	root	shadow	1024	2023-10-27 10:00
/etc/group	-rw-r--r--	root	root	1024	2023-10-27 10:00

root@kali:~#

[illegible]



# PRECISION GRADING: THE "AI EVALUATOR"

- o **Instant Scale Grades:** Trainees can record assessments via browser or mobile, anytime, anywhere. The AI evaluates them in parallel, removing the scheduling bottleneck.
- o **Step-by-Step Verification:** The system compares the trainee's video against the Gold Standard frame-by-frame, marking steps as CORRECT, INCORRECT, or MISSED.
- o **Safety Violation Detection:** It acts as an unblinking safety officer, instantly flagging missing PPE or dangerous deviations with critical severity warnings



**WARNING:  
GLOVES NOT  
DETECTED**







COMPLIANCE: 85%



WARNING:  
GLOVES NOT  
DETECTED



A4





# QUANTIFYING COMPETENCE: THE SCORING LOGIC

- **Weighted Intelligence:** Not all errors are equal. The scoring algorithm assigns 25 points to Critical steps, 10 to Important ones, and 3 to Minor details.
- **Automatic Fail Triggers:** A "Pass" ( $\geq 90\%$ ) is not just a score—it requires zero critical safety violations. Any critical miss triggers an immediate FAIL, regardless of the total score.
- **Status Logic:** The system triages results into PASS, FAIL, or NEEDS\_REVIEW, ensuring human supervisors only spend time on borderline cases



CRITICAL FAILURES:	0	✓
MINOR DEVIATIONS:	2	⚠



## Scorecard



OVERALL SCORE

92%

CRITICAL FAILURES:

0



MINOR DEVIATIONS:

2



# THE INTEGRITY SUITE: SUPERVISORY OVERSIGHT

- **The Review Queue:** Supervisors access a dashboard to review "NEEDS\_REVIEW" assessments, watching the specific clip where the AI flagged an issue.
- **Override & Justify:** The human expert remains the final authority. They can override AI decisions but must provide documented justification, maintaining the integrity of the audit trail.
- **Test Library:** To ensure trust, the "Test Library" allows QA teams to challenge the AI with intentional variations to validate and improve its detection rates over time.







Mission Control

AI Flag

AI Flag

AI Flag

AI Flag

AI Flag

Comment (N):  
Override: Variation Acceptable.

AUDIT LOG  
SECURED





# SECURITY & SOVEREIGNTY: THE TECH STACK



- **The Engine:** Powered by the advanced multimodal capabilities of Gemini Vision AI (gemini-2.0-flash) for unrivaled video understanding.
- **Secure Storage:** All video data is stored in secure object storage with signed, time-limited URLs (7-day expiry) to prevent unauthorized access.
- **Full Auditability:** Every session is tracked with Worker ID, consent logs, and timestamped decisions, stored in a transactionally consistent PostgreSQL database.





Digital Vault

Gemini  
Vision

Authentication

Encryption

Audit Logs



# THE OPERATIONAL IMPERATIVE

- **The Shift:** We are moving from "Subjective Observation" to "Objective Intelligence."

- **The Impact:**

- **Scalability:** Unlimited parallel assessments.
- **Consistency:** Standardized AI evaluation across all sites.
- **Speed:** Time to competency reduced from days to minutes.
- **The Next Step:** Deploy the EON Assist IQ platform to capture your first "Gold Standard" today

100%

COMPLIANCE SCORE

EON Assist IQ





# 100%

COMPLIANCE SCORE

**EON** Assist IQ





Dashboard



Analysis



Assess Trainee



Test Library



Product Guide



Overview



How It Works



User Guides



Roles



Technical



FAQ



Support



## What is AssessIQ?

AssessIQ is an AI-powered industrial training and compliance platform that automates the creation, management, and evaluation of Standard Operating Procedures (SOPs).

*"One expert. Infinite assessments."*

## The Problem We Solve



### Inconsistent Training

Manual procedure documentation varies by who writes it, leading to inconsistent training materials across facilities.



### Scalability Bottleneck

Expert trainers can only evaluate one trainee at a time, creating scheduling delays and limited training capacity.



### Subjective Evaluations

Human assessors may apply different standards, introducing bias and inconsistency in pass/fail decisions.



### Safety Compliance Gaps

Critical safety steps may be missed or improperly evaluated during manual reviews.



### Documentation Overhead

Creating and maintaining procedure documentation is time-consuming and often outdated.



### Audit Trail Gaps

Paper-based or informal assessments lack the detailed records needed for regulatory compliance.

## The AssessIQ Solution

AssessIQ addresses these challenges by automating procedure extraction from expert videos and providing consistent, objective, AI-powered trainee assessments with full audit trails.



AI Connected

DEVELOP ACTIVE



**AssessIQ**  
ONE EXPERT. INFINITE ASSESSMENTS.

Dashboard

Analysis

Assess Trainee

Test Library

**Product Guide**

**AI Connected**  
● REMAIN ACTIVE

## How It Works

### Core Capabilities

#### AI-Powered SOP Generation

Analyze expert demonstration videos and automatically extract:

- Timestamped procedural steps (MM:SS format)
- Tools and equipment used
- Safety precautions and PPE requirements
- Critical step identification
- Quality checkpoints

#### Automated Trainee Assessment

Evaluate trainee performance videos by:

- Step-by-step verification (CORRECT/INCORRECT/MISSED)
- Safety violation detection with severity levels
- Weighted scoring based on step criticality
- Automatic failure triggers for critical issues

#### Human Review Workflow

Supervisors can:

- Review AI-generated assessments
- Override decisions with justification
- Approve conditional passes
- Maintain full audit trails

#### AI Validation (Test Library)

Validate AI detection accuracy:

- Create test cases with intentional variations
- Compare against gold standards
- Track detection rates over time
- Continuously improve reliability

### Assessment Flow



### Scoring System

Step Criticality	Points	If Missed	Example
<b>Critical</b>	25 points	<b>AUTO-FAIL</b>	Hand hygiene, seal check
<b>Important</b>	10 points	<b>-10 points</b>	Gown technique, sequence

**Creating a New SOP**

Analysis Page

**Purpose:** Convert an expert demonstration video into a structured procedure document.

1. Navigate to Analysis from the main menu
2. Enter the Procedure Name (e.g., "PPE Donning Procedure")
3. Paste the Video URL of the expert demonstration
4. Click Analyze Video to start AI processing
5. Review the generated SOP with timestamped steps
6. Set Criticality Level for each step: Critical (missing = auto-fail), Important (significant procedural steps), Minor (acceptable variations allowed)
7. Click Save as Gold Standard to store the SOP

**Assessing a Trainee (Video URL)**

Assess Trainee Page

**Purpose:** Evaluate trainee performance using a video URL.

1. Navigate to Assess Trainee
2. Select Video URL mode
3. Choose the SOP to assess against
4. Enter the Trainee Name
5. Paste the trainee's Video URL
6. Click Run Assessment
7. View results including: overall compliance score, step-by-step evaluation, safety violations (if any), and Pass/Fail/Needs-Review status

**Assessing a Trainee (Live Camera)**

Assess Trainee Page

**Purpose:** Record and evaluate trainee performance in real-time.

1. Navigate to Assess Trainee and select Live Camera mode
2. Step 1 - Information: Select SOP, enter Worker ID, Name, and Station
3. Step 2 - Consent: Confirm supervisor consent for video recording
4. Step 3 - Environment Check: Good lighting, stable camera, worker visible from head to waist, all equipment in frame, clear view of hands



Roles & Workflows

Training Manager / Administrator

- Creates and manages Gold Standard SOPs from expert videos
- Reviews and approves SOP step criticality settings
- Monitors overall pass rates and compliance trends
- Manages test library for AI validation

Supervisor / Reviewer

- Reviews assessments flagged for human judgment
- Overrides AI decisions when appropriate
- Documents review decisions for audit trail
- Approves or fails borderline assessments

Trainee / Worker

- Records assessment videos via camera or provides video URL
- Views personal assessment results
- Receives immediate feedback on performance
- Can re-attempt assessments after training

Quality Assurance

- Creates and manages AI validation test cases
- Monitors AI detection accuracy metrics
- Identifies gaps in AI detection capability
- Recommends improvements to SOPs or AI prompts

Technical Specifications

Technology Stack

Component	Technology
Frontend	React 18, TypeScript, Tailwind CSS, shadcn/ui
Backend	Node.js, Express, TypeScript
Database	PostgreSQL with Drizzle ORM
AI Engine	Google Gemini Vision AI (gemini-2.0-flash)
Video Storage	Replit Object Storage (Google Cloud)
Authentication	Session-based with Passport.js

## Technical Specifications

### Technology Stack

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Frontend	React 18, TypeScript, Tailwind CSS, shadcn/ui
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### Data Model

#### SOPs

Procedure definitions with timestamped steps, criticality levels, video URLs

#### Assessments

Trainee evaluation records with scores, step results, safety violations

#### Reviews

Supervisor decisions with override reasons and final determinations

#### Test Cases

AI validation records with expected vs. actual detection results

#### Sessions

Assessment session tracking with worker ID, station, consent, attempt counts

### Security & Compliance

- **Video Storage:** Secure cloud storage with signed URLs (7-day expiry)
- **Session Tracking:** Worker ID and consent logging for all recordings
- **Audit Trail:** All assessments, reviews, and decisions permanently recorded
- **Data Integrity:** PostgreSQL with transactional consistency
- **Access Control:** Session-based authentication for supervisors



## ? Frequently Asked Questions

### What video formats are supported?

AssessIQ supports YouTube URLs, Google Cloud Storage URLs, and direct video URLs (MP4, WebM). For live camera capture, videos are recorded in WebM format.

### How long does AI analysis take?

Typically 30-90 seconds depending on video length. The system shows a progress indicator during analysis.

### Can a trainee retry a failed assessment?

Yes. For live camera assessments, workers get up to 3 attempts per session, with the best score counted. Supervisors can also allow additional retries.

### What happens if a critical step is missed?

Missing any step marked as "Critical" results in automatic failure, regardless of the overall score. This ensures safety-critical procedures are never skipped.

### How do I validate AI accuracy?

Use the Test Library to create test cases with known variations. Run comparisons and track detection rates to measure and improve AI reliability over time.

### Are assessment videos stored permanently?

Videos are stored with signed URLs that expire after 7 days. Organizations can configure longer retention periods based on compliance requirements.

### Can supervisors override AI decisions?

Yes. Supervisors can approve, conditionally approve, or fail any assessment, with documented justification for audit trail purposes.

### What browsers are supported?

AssessIQ works on Chrome, Firefox, Safari, and Edge. For live camera capture, a browser with WebRTC support is required (all modern browsers).



AssessIQ

ONE EXPERT. INFINITE  
ASSESSMENTS.



Dashboard



Analysis



Assess Trainee



Test Library



Product Guide



AI Connected

• GEMINI ACTIVE

# Dashboard

Overview of recent procedure captures and compliance.

Assess Trainee

Capture Expert Video



TOTAL SOPs

5

5 created



TOTAL ASSESSMENTS

15

15 completed



PASS RATE

33.3%

Based on all assessments



TEST LIBRARY

1

1 detected, 0 missed



## Recent SOPs

[View All](#)



PPE Donning - Gold Standard

Updated about 18 hours ago

v1.0



Barbell Squat - Gold Standard

Updated about 21 hours ago

v1.0



Adult CPR - Gold Standard

Updated about 21 hours ago

v1.0



Flat Tire Repair

Updated about 22 hours ago

v1.0



Bicycle Wheel Replacement

Updated 1 day ago

v1.0

## Recent Assessments

[View All](#)



Test Case: RegisteredNurseRN Tutorial

SOP #5

PASS

about 17 hours ago



Dan

SOP #5

FAIL

about 18 hours ago



Mats

SOP #5

PASS

about 18 hours ago



Mats

SOP #5

PASS

about 18 hours ago



Squat Test

SOP #4

PASS

about 21 hours ago





## SOP Capture from Expert Video

### ▶ Video Analysis

Procedure Name

PPE Donning - Gold Standard

Expert Video URL

<https://youtu.be/58STtUM-Wow?si=vvDdmYU34WEol>

YouTube URLs or direct video links supported

Analyzing Video...

AI is watching the video and extracting procedure steps...  
This may take 30-60 seconds



### No SOP Generated Yet

Enter a procedure name and expert video URL, then click "Analyze Video" to generate a Standard Operating Procedure automatically.



## SOP Capture from Expert Video

Save as Gold Standard



Dashboard



Analysis



Assess Trainee



Test Library



Product Guide



AI Connected  
SENTINEL ACTIVE

### Video Analysis

Procedure Name

PPE Donning - Gold Standard

Expert Video URL

<https://youtu.be/58STIUM-Wow?si=vvDdmYU34WEol>

YouTube URLs or direct video links supported

Analyze Video

### How to Fix a Flat Tire on a Bicycle

06:17

This video provides a basic overview of how to repair a flat tire on a bicycle, including removing the wheel, replacing the inner tube, and putting everything back together.

9 Steps

8 Critical

1 Important

0 Minor

### Procedure Steps

1

00:17 Important

Gather tools and supplies: wrenches (if needed), tire levers, pump or CO2 cartridge, and a spare inner tube.

Criticality Level:



Critical



Important



Minor



Wrenches

Tire levers

Pump or CO2 cartridge

Spare inner tube



Ensure tools are in good working condition.

2

00:55 Critical

Remove the wheel from the bike frame. If the bike has rim brakes, disengage the brake calipers first. For rear wheels, carefully maneuver the derailleur to allow wheel removal.

Criticality Level:



Critical



Important



Minor



Wrenches (if needed)

### Safety Requirements

- Always wear eye protection when working on a bicycle.
- Be careful when handling sharp tools.
- Ensure the bike is stable before beginning any repairs.
- Do not overinflate tires.

### Quality Checks

- Verify the tire is properly seated on the rim.
- Ensure the wheel is securely attached to the frame.
- Check brake function before riding.





AssessIQ

ONE EXPERT, INFINITE  
ASSESSMENTS



Dashboard



Analysis



Assess Trainee



Test Library



Product Guide



AI Connected

• GEMINI ACTIVE



## Assess Trainee

Evaluate trainee performance against Gold Standard SOPs using Gemini Vision AI.

### Assessment Mode

↔ Video URL

📷 Live Camera

### Assessment Parameters

Select the procedure and trainee details for analysis.

#### Standard Operating Procedure (SOP)

Select an SOP...

#### Trainee Name

e.g. John Doe

#### Trainee Video URL

https://storage.googleapis.com/...

Supported formats: MP4, WEBM (Max 500MB)

📄 Run Assessment



## ☆ Gold Standards

🔍 Search SOPs...

### PPE Donning - Gold Standard

11 steps • v1.0



### Barbell Squat - Gold Standard

10 steps • v1.0



### Adult CPR - Gold Standard

15 steps • v1.0



## PPE Donning - Gold Standard

This procedure outlines the steps for properly donning full Personal Protective Equipment (PPE) in a healthcare setting to minimize the risk of contamination and infection.

+ Add Test Case

## Test Cases (1)



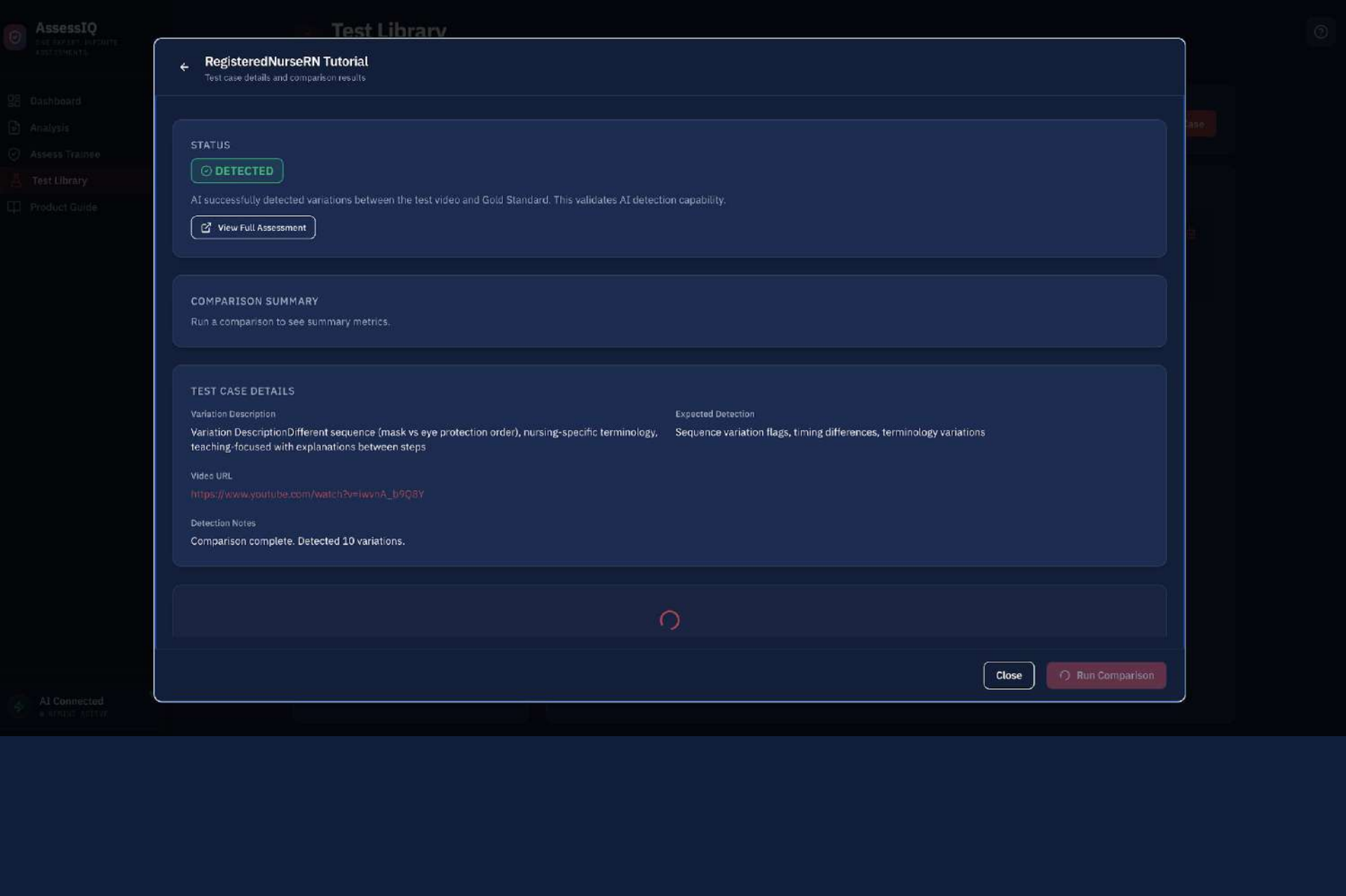
### RegisteredNurseRN Tutorial



Variation Description Different sequence (mask vs eye protection order), nursing-specific terminology, teaching-focused with explanations between steps

🔗 Video linked Expected: Sequence variation flags, timing differences, terminology variations






## ← RegisteredNurseRN Tutorial

Test case details and comparison results

## STATUS

 DETECTED

AI successfully detected variations between the test video and Gold Standard. This validates AI detection capability.

 View Full Assessment

## COMPARISON SUMMARY

Run a comparison to see summary metrics.

## TEST CASE DETAILS

Variation Description

Variation DescriptionDifferent sequence (mask vs eye protection order), nursing-specific terminology, teaching-focused with explanations between steps

Expected Detection

Sequence variation flags, timing differences, terminology variations

Video URL


[https://www.youtube.com/watch?v=IwvnA\\_b9Q8Y](https://www.youtube.com/watch?v=IwvnA_b9Q8Y)

Detection Notes

Comparison complete. Detected 10 variations.



Close


 Run Comparison



## RegisteredNurseRN Tutorial

Test case details and comparison results

### STATUS

 DETECTED

AI successfully detected variations between the test video and Gold Standard. This validates AI detection capability.

 View Full Assessment

### TRAINEE VERDICT

 **CONDITIONAL**

Score: 91%

Supervisor review recommended

Issues Found:

- 1 sequence difference(s)

### COMPARISON SUMMARY

6

Total

1

Sequence

0

Timing

0

Missing

5

Extra

### TEST CASE DETAILS

Variation Description


Variation DescriptionDifferent sequence (mask vs eye protection order), nursing-specific terminology,

Expected Detection

Sequence variation flags, timing differences, terminology variations

Close

 Save Comparison Results

 Run Comparison





TEST CASE DETAILS

Variation Description

Variation DescriptionDifferent sequence (mask vs eye protection order), nursing-specific terminology, teaching-focused with explanations between steps

Expected Detection

Sequence variation flags, timing differences, terminology variations

Video URL

[https://www.youtube.com/watch?v=iwvnA\\_b9Q8Y](https://www.youtube.com/watch?v=iwvnA_b9Q8Y)

Detection Notes

Comparison complete. Detected 10 variations.

🔍 STEP-BY-STEP COMPARISON

Detected

Status	Step Description	Gold	Test
Match	Perform hand hygiene for 15 seconds, applying product to your hands.	00:05	00:52
Match	Rub hands together, including between and around fingers, back of hands, and fingertips.	00:10	00:52
Match	Put on gown.	00:31	00:54
Match	Hold the gown so that the opening faces you. One arm at a time, put on the gown so that the opening is at the back. Pull the gown up over the shoulders.	00:38	00:54
Match	Tie the neck and waist strings so that the gown overlaps.	00:55	01:06
Sequence	Put on mask. • Sequence is different, mask is put on before eye protection	01:27	01:10

Close



Save Comparison Results



Run Comparison



## RegisteredNurseRN Tutorial

Test case details and comparison results

Match

Rub hands together, including between and around fingers, back of hands, and fingertips.

00:10

00:52

Match

Put on gown.

00:31

00:54

Match

Hold the gown so that the opening faces you. One arm at a time, put on the gown so that the opening is at the back. Pull the gown up over the shoulders.

00:38

00:54

Match

Tie the neck and waist strings so that the gown overlaps.

00:55

01:06

Sequence

Put on mask.

01:27

01:10

• Sequence is different, mask is put on before eye protection

Match

Position the mask with the nose piece on top and place the loops of the mask over each ear. Stretch the mask to fit under your chin.

01:31

01:15

Match

Bend the nose bar over the bridge of your nose so that the mask fits over your nose and mouth.

01:42

01:23

Match

Put on gloves.

01:50

03:47

Match

Wear gloves that fit well. Pull the glove on over the fingers of one hand, taking care not to puncture the glove by pulling it too hard.

01:53

03:48

Match

Pull the cuff of the glove over the cuff of the gown sleeve so that it fits snugly.

02:04

03:54

### Additional Observations

Extra step: Eye protection is put on at 03:36

Extra step: Hand hygiene is performed again at 03:46

Extra step: The video includes a respirator fit test at 02:44

Extra step: The video includes instructions on how to apply a respirator at 01:38

Extra step: The video includes instructions on how to apply a face mask at 01:11

Close

 Save Comparison Results

 Run Comparison