

podium

Interpreting Facial Validation Results

A Guide for Test Administrators

Citation ISO Certification
ISO 27001: 2022
Information security management
REGISTERED

INTRODUCTION

Podium's Facial Validation technology represents a significant advancement in maintaining assessment integrity during unsupervised online testing. This tool continuously monitors candidates throughout their assessment, capturing periodic snapshots and using AI-powered analysis to detect anomalies in candidate behaviour and environmental conditions.

As digital assessment becomes increasingly prevalent, and with the growing sophistication of methods used to compromise test integrity, Facial Validation provides administrators with crucial insights into the testing environment and candidate conduct. However, interpreting these results requires careful consideration of context, technical limitations, and the principle of fair assessment.

This document provides practical guidance for administrators on how to interpret Facial Validation portfolios, identify potential concerns, and conduct appropriate follow-up discussions with candidates.

What is Facial Validation?

Facial Validation technology monitors candidates during assessments by:

- **Capturing periodic snapshots** throughout the assessment duration
- **Analysing face visibility and positioning** using AI-powered image recognition
- **Detecting anomalies** in candidate presence and positioning
- **Generating confidence coefficients** for each image compared to a reference baseline
- **Creating a comprehensive portfolio** of the candidate's testing session

Facial Validation technology monitors candidates during assessments by:

- Use of external assistance
- Identity substitution
- Deliberate camera manipulation
- Technical issues affecting test validity
- Environmental distractions or changes that may impact performance

Important Note: Facial Validation serves dual purposes - detecting potential malfeasance and providing reassurance about assessment validity. The system helps administrators determine not only whether misconduct may have occurred, but also whether the candidate was able to complete the assessment under optimal conditions to demonstrate their true abilities.

© Podium Systems Limited

KEY INDICATORS

1. Face Visibility and Positioning

What to Look For:

- **Consistent face visibility: T**he candidate's face should be clearly visible throughout most of the assessment
- **Forward-facing orientation:** Candidates should predominantly look toward the camera/screen
- **Appropriate positioning:** Face should be centred and at reasonable distance from camera

Red Flags:

- Extended periods where no face is detected
- Frequent looking away from the screen for extended periods
- Face consistently positioned at extreme angles
- Dramatic changes in distance from camera

Potential Explanations:

- **Innocent:** Poor camera positioning, technical difficulties, natural movement during thinking
- **Concerning:** Looking at secondary screens, receiving assistance from someone off-camera, using external materials

2. Confidence Coefficient Analysis

What to Look For:

- **Confidence trends:** How confidence levels change throughout the assessment
- **Sudden drops:** Sharp decreases in confidence at specific points
- **Sustained low confidence:** Extended periods of poor face recognition

Red Flags:

- Confidence coefficients consistently below 40%
- Sharp drops in confidence towards the end of an ability assessment
- No change in captured images or confidence
- Extreme low confidence, suggesting different individuals

Potential Explanations:

- **Innocent:** Poor lighting conditions, camera quality issues, natural movement
- **Concerning:** Identity substitution, deliberate camera obstruction, use of physical photographs blocking the camera view

© Podium Systems Limited

3. Image Consistency and Environmental Stability

What to Look For:

- **Visual consistency:** How the candidate's appearance remains consistent throughout
- **Reference comparison:** How well each image matches the baseline reference
- **Background stability:** Consistent environmental conditions throughout assessment
- **Positioning consistency:** Natural variations vs. dramatic changes in candidate positioning

Red Flags:

- Identical images repeated throughout (suggesting static photograph)
- Dramatic variations in confidence coefficients suggesting different individuals
- Significant environmental changes mid-assessment
- Images that appear artificially static or manipulated
- Frequent confidence drops correlating with apparent environmental changes

Potential Explanations:

- **Innocent:** Camera freezing, software glitches, lighting changes, household activity, movement to different room
- **Concerning:** Use of photographs, identity substitution, deliberate camera manipulation, external assistance

4. Temporal Patterns

What to Look For:

- **Consistency with question timing:** Facial behaviour correlating with assessment progress
- **Response patterns:** How facial positioning relates to question difficulty or type
- **Break periods:** Behaviour during natural pauses vs. active question answering

Red Flags:

- Extended periods of looking away during complex questions
- Systematic pattern of face absence
- Inconsistent engagement patterns suggesting external assistance

© Podium Systems Limited

INTERPRETATION FRAMEWORK

High Confidence Scenarios (Minimal Concern)



- Consistent face visibility above 80% confidence
- Natural variations in positioning and expression
- Stable environmental conditions
- Reasonable explanations for any minor anomalies

Medium Confidence Scenarios (Warrants Review)



- Occasional confidence drops or positioning issues
- Some inconsistencies in image quality or positioning
- Patterns that could suggest technical issues or minor irregularities
- Requires contextual evaluation and possibly candidate discussion

Low Confidence Scenarios (Significant Concern)



- Frequent or extended periods of face absence
- Multiple confidence red flags occurring together
- Patterns strongly suggesting external assistance or identity issues
- Requires immediate follow-up and likely supervised retest

ASSESSMENT VALIDITY CONSIDERATIONS

Beyond detecting potential misconduct, administrators should consider whether the candidate was able to demonstrate their best performance:

Optimal Conditions Indicators:

- Consistent environmental conditions throughout
- Stable confidence coefficients suggesting undisturbed testing
- Natural, relaxed positioning indicating comfort and focus
- Appropriate timing patterns suggesting genuine engagement

Suboptimal Conditions Indicators:

- Environmental changes suggesting household disruptions
- Confidence fluctuations indicating distractions or interruptions
- Positioning changes suggesting discomfort or external influences
- Unsuitable environments for assessment completion (busy office, public transport, etc.)

Key Question: Even if no misconduct is suspected, did the candidate have the opportunity to perform at their best?

© Podium Systems Limited

CONDUCTING FOLLOW-UP DISCUSSIONS

Pre-Discussion Preparation

Before approaching a candidate about Facial Validation concerns:

1. Review the complete portfolio systematically
2. Document specific timestamps and confidence coefficients
3. Consider technical explanations for observed anomalies
4. Prepare specific, non-accusatory questions
5. Have retest options available if needed

Opening the Conversation

Recommended Approach: "During your recent assessment, our monitoring system detected some irregularities that we'd like to discuss with you. This doesn't necessarily indicate any wrongdoing, but we do need to understand what happened during your test session."

Key Questions to Ask

General Technical Issues

- "Did you experience any technical difficulties during the assessment?"
- "Can you describe your testing environment - where were you sitting, what device did you use?"
- "Were there any distractions or interruptions during your test session?"

Camera and Positioning

- "Were you aware that the assessment includes camera monitoring?"
- "Did you have any issues with your camera or lighting during the test?"
- "Did you need to adjust your position or camera angle during the assessment?"
- "Did you remain in the same position throughout the test, or did you move around?"

Environmental Factors

- "Was anyone else present in the room during your assessment?"
- "Did you remain in the same location throughout the test?"
- "Were there any interruptions or distractions during the assessment?"
- "Did your testing environment change at any point during the session?"
- "Were there any technical issues that might have affected your camera feed?"
- "Did anything distract you or cause you to look away from the screen during the assessment?"

© Podium Systems Limited

Specific Anomalies

For extended periods of face absence:

- "Our system shows extended periods where your face wasn't visible to the camera. Can you help us understand what might have caused this?"

For multiple faces detected:

- "The monitoring system detected additional people in the camera frame. Can you explain the circumstances?"

For dramatic confidence variations:

- "There were significant changes in how clearly the camera could see you throughout the test. What might have caused these variations?"

EVALUATING RESPONSES

Credible Explanations

- **Technical issues:** Poor internet connection, camera malfunctions, software problems
- **Environmental factors:** Poor lighting, shared spaces, unexpected interruptions, household activity
- **Physical necessities:** Brief breaks for water, toilet, medical needs
- **Setup problems:** Camera positioning issues, device problems, moving to quieter location
- **Innocent distractions:** Family members, pets, delivery interruptions, phone calls

Responses Requiring Further Investigation

- **Vague explanations:** Cannot recall specific incidents or provide unclear responses
- **Inconsistent details:** Story changes between retelling or conflicts with evidence
- **Defensive behaviour:** Overly emotional responses or accusations about the technology
- **Suspicious knowledge:** Unusually detailed understanding of monitoring capabilities

Documentation Requirements

For every Facial Validation follow-up:

1. Record the candidate's explanations verbatim
2. Document your assessment of response credibility
3. Note any additional evidence gathered during discussion
4. Outline next steps (accept result, retest, further investigation)
5. Timestamp all interactions for audit purposes

© Podium Systems Limited

COMMON SCENARIOS AND INTERPRETATIONS

Scenario 1: Consistent Low Confidence Throughout

Likely Causes: Poor camera quality, lighting issues, technical problems

Follow-Up: Discuss technical setup, offer supervised retest with better conditions

Red Flags: If candidate claims no technical issues occurred

Scenario 2: Periodic Face Absence During Complex Questions

Likely Causes: Looking at notes, external assistance, or natural thinking behaviour

Follow-Up: Ask about study materials, thinking processes, distractions

Red Flags: Systematic pattern correlating with question difficulty

Scenario 3: Environmental Changes During Assessment

Likely Causes: Household interruptions, lighting changes, location changes, or external assistance

Follow-Up: Discuss household situation, testing setup, reasons for environmental changes

Red Flags: Changes correlating with specific question types or performance improvements

Scenario 4: Positioning Inconsistencies

Likely Causes: Physical discomfort, device adjustments, distractions, or deliberate repositioning

Follow-Up: Discuss testing setup, physical comfort, environmental factors

Red Flags: Systematic changes correlating with question patterns

Scenario 5: Identical Images Throughout Assessment

Likely Causes: Camera malfunction, software freezing, or photograph substitution

Follow-Up: Discuss technical issues, verify device functionality

Red Flags: Perfect consistency suggesting artificial image

Scenario 6: Dramatic Confidence Variations

Likely Causes: Lighting changes, camera adjustments, environmental changes, or identity concerns

Follow-Up: Ask about lighting conditions, camera setup, environmental factors, technical difficulties

Red Flags: Patterns suggesting different individuals or deliberate manipulation

© Podium Systems Limited

SAMPLE QUESTIONS AND RESPONSE EVALUATION

Understanding how to interpret candidate responses is crucial for fair assessment. Below are examples of questions with typical good and concerning responses.

General Assessment Questions

Question: "Did you experience any technical difficulties during the assessment?"

Good Responses:

- "Yes, my internet connection dropped twice, so I had to restart my router"
- "The camera kept freezing, so I had to refresh the browser once"
- "No significant issues, just some minor lag with my older laptop"
- "My webcam wasn't working initially, so I had to switch to my phone's camera"

Concerning Responses:

- "No problems at all" (when data shows multiple anomalies)
- "I don't remember any issues" (vague, non-specific)
- "Everything was perfect" (inconsistent with evidence)
- Overly detailed technical explanations that seem rehearsed

Camera and Positioning Questions

Question: "Can you describe your testing setup and environment?"

Good Responses:

- "I was in my bedroom at my desk with my laptop camera"
- "Kitchen table, using my tablet - not ideal lighting but it was the quietest spot"
- "Home office, but my camera is positioned a bit low so I had to look down"
- "Living room sofa with my laptop - had to adjust position a few times for comfort"

Concerning Responses:

- Extremely vague descriptions: "Just at home"
- Inconsistent details when asked to clarify
- Claims of perfect setup when data suggests otherwise
- Inability to recall basic details about their environment

© Podium Systems Limited

Face Visibility Issues

Question: "Our monitoring shows extended periods where your face wasn't clearly visible. Can you explain what might have caused this?"

Good Responses:

- "I was thinking hard on question 15 and probably looked up at the ceiling"
- "My cat jumped on my desk and I had to move it away"
- "I got up briefly to close the window because of traffic noise"
- "My camera angle wasn't great, so I kept having to lean back to read properly"

Concerning Responses:

- "That's impossible, I never moved" (defensive, contradicts evidence)
- "Your system must be wrong" (blaming technology)
- Inability to provide any explanation for clear anomalies
- Overly complex explanations for simple questions

Environmental Changes

Question: "The data suggests your testing environment changed during the assessment. What happened?"

Good Responses:

- "I started in the living room but moved to my bedroom because my flatmate came home"
- "Had to move away from the window because the sun was creating glare"
- "My family came home halfway through, so I moved to a quieter room"
- "The lighting changed when it got dark, so I turned on a lamp"

Concerning Responses:

- Denying any environmental changes when evidence is clear
- Claiming moves were for "better concentration" on difficult questions
- Unable to provide timeline of when changes occurred
- Defensive about why changes were necessary

© Podium Systems Limited

Confidence Coefficient Variations

Question: "There were significant changes in how clearly the camera could see you throughout the test. What might have caused these variations?"

Good Responses:

- "I was adjusting my position to get more comfortable as I went along"
- "My laptop battery was dying so the screen got dimmer"
- "I moved closer to the camera for the reading sections because I forgot my glasses"
- "The sun was moving across the sky and changing the lighting in my room"

Concerning Responses:

- Claims of identical positioning throughout when data shows variations
- Suggesting the technology is unreliable without providing explanations
- Inconsistent explanations when pressed for details
- Blaming others for changes they claim not to have made

Multiple Anomalies

Question: "We noticed several irregularities during your assessment - extended periods of face absence, environmental changes, and timing anomalies. Can you walk us through what happened?"

Good Responses:

- Comprehensive explanation covering all points: "I had a really difficult testing experience - my internet kept dropping, my dog was barking, and I had to move rooms twice..."
- Honest admission: "It wasn't ideal conditions - I was trying to fit it in between work calls and probably should have rescheduled"
- Specific timeline: "The first 30 minutes went fine, then my family came home and it became quite chaotic..."

Concerning Responses:

- Minimal explanation that doesn't address most anomalies
- Contradictory explanations for different issues
- Suggesting all problems were minor when data suggests significant disruption
- Becoming increasingly defensive or evasive

© Podium Systems Limited

Assessment Performance Questions

Question: "Do you feel you were able to demonstrate your best performance during this assessment?"

Good Responses:

- "Not really - I was quite distracted by household noise"
- "I think so, despite the technical issues"
- "The first half was good, but I struggled to concentrate after my flatmate came home"
- "Yes, overall I felt I could focus and show my abilities"

Concerning Responses:

- Claiming perfect performance when data suggests significant disruption
- Being unable to assess their own experience
- Contradicting earlier statements about difficulties
- Overly confident assertions that don't match the evidence

RED FLAG RESPONSE PATTERNS

Consistently Concerning Behaviours:

- **Blanket denials:** Denying any issues when clear evidence exists
- **Defensive aggression:** Becoming hostile about monitoring technology
- **Vague responses:** Unable to provide specific details about their experience
- **Inconsistent narratives:** Story changes with different questions
- **Blame shifting:** Everything is the fault of technology, family, etc.
- **Overly rehearsed:** Responses seem prepared or artificial
- **Memory issues:** Claiming not to remember recent experiences

Reassuring Response Patterns:

- **Honest acknowledgment:** Admitting when things went wrong
- **Specific details:** Able to provide timeline and context
- **Consistent narrative:** Story remains coherent across questions
- **Natural language:** Responses sound genuine and unrehearsed
- **Appropriate concern:** Shows understanding of why questions are being asked
- **Problem-solving attitude:** Willing to discuss solutions (retests, etc.)

© Podium Systems Limited

RECOMMENDED ACTIONS BY CONFIDENCE LEVEL

High Confidence (Accept Result)

- Minor technical explanations provided
- No pattern of suspicious behaviour
- Candidate responses align with evidence
- **Action:** Accept assessment result, document findings

Medium Confidence (Conditional Accept with Consideration)

- Some unexplained anomalies but reasonable explanations provided
- Environmental changes or distractions that may have impacted performance
- Technical issues likely contributed to problems
- No clear evidence of misconduct but some concerns about optimal performance conditions
- **Action:** Accept result with notation about potential performance impact, consider offering supervised retest if role is critical

Low Confidence (Retest Required)

- Significant unexplained anomalies
- Responses don't align with evidence
- Pattern suggests possible misconduct
- **Action:** Require supervised retest, document concerns

Very Low Confidence (Investigation Required)

- Multiple red flags present
- Implausible explanations provided
- Strong evidence of irregular behaviour
- **Action:** Formal investigation, immediate supervised retest, escalate to senior management

© Podium Systems Limited

ETHICAL CONSIDERATIONS AND BEST PRACTICES

Human Oversight and Accountability

- **Always include a qualified human reviewer** as part of the validation process — AI systems should support, not replace, professional judgement.
- **Do not treat AI-generated flags or alerts as definitive evidence** of misconduct; they should be considered indicators requiring further investigation.
- **Review flagged sessions** in context, taking into account candidate explanations, environmental conditions, and any relevant mitigating factors before making decisions.
- **Ensure decision-making processes remain transparent,** with humans retaining final responsibility for outcomes rather than deferring entirely to automated assessments.
- **Provide training for administrators** on interpreting AI outputs, recognising potential false positives or biases, and applying consistent, fair review procedures.

Fairness and Transparency

- **Always explain** the monitoring system to candidates before testing
- **Provide clear guidelines** about expected behaviour during assessment
- **Offer reasonable accommodations** for legitimate technical constraints
- **Document decisions thoroughly** to ensure consistency

Avoiding Bias

- **Consider cultural factors** that might affect eye contact or positioning
- **Account for disabilities** that could impact typical positioning or movement
- **Evaluate technical literacy** - some candidates may struggle with camera setup
- **Assess environmental constraints** - not all candidates have ideal testing spaces

Communication Guidelines

- **Remain professional** and non-accusatory throughout discussions
- **Focus on specific behaviours** rather than making character judgements
- **Provide opportunities** for candidates to explain circumstances
- **Respect privacy concerns** whilst maintaining assessment integrity

Data Protection

- **Secure storage** of all facial validation data
- **Limited access** to authorized personnel only
- **Clear retention policies** for assessment monitoring data
- **Candidate privacy rights** must be respected throughout process

© Podium Systems Limited

TECHNICAL LIMITATIONS AND CONSIDERATIONS

System Limitations

- **Camera quality** significantly affects confidence coefficients
- **Lighting conditions** can impact face detection accuracy
- **Device compatibility** may vary across different systems
- **Internet stability** can affect image capture quality

False Positives

- **Natural movement** during thinking may trigger alerts
- **Technical glitches** can create apparent anomalies
- **Environmental factors** beyond candidate control may affect results
- **Cultural differences** in eye contact and positioning norms

Integration with Other Measures

- **Combine with confidence scores** from other assessment security measures
- **Consider overall performance patterns** against candidate background
- **Evaluate consistency** with other recruitment indicators
- **Use as part of holistic assessment** rather than standalone evidence

CONCLUSION

Facial Validation technology provides administrators with powerful insights into assessment integrity, but these tools must be used thoughtfully and ethically. The goal is not to catch candidates in misconduct, but to ensure fair and accurate assessment of all candidates' abilities.

By following the guidelines in this document, administrators can:

- Make informed decisions about assessment validity
- Conduct fair follow-up discussions with candidates
- Maintain assessment integrity while respecting candidate rights
- Document processes thoroughly for consistency and accountability

Remember that Facial Validation is one component of a comprehensive assessment security framework. It should be used in conjunction with other integrity measures and always with consideration for the human element in testing.

When in doubt, err on the side of providing candidates with additional opportunities to demonstrate their abilities under supervised conditions, whilst maintaining the integrity and validity of your assessment process.

© Podium Systems Limited