



## LEVEL 3 IMPROVEMENT TECHNICIAN END-POINT ASSESSMENT 610/1529/5

### 1. Introduction

Improvement Technicians are responsible for delivery and coaching of improvement activity within an area of responsibility, often associated with Lean and Six Sigma methodologies. They can be found across all industry sectors and functions including automotive, banking, engineering, food products, IT, property, retail, telecoms Local and County Councils, NHS, Voluntary / Charity, Utilities, Pharmaceuticals, Insurance, Hospitality etc.

Typically, Technicians work as a member of an operational team to resolve problems - preventing re-occurrence, engaging others in issues affecting them and to support the improvement of performance. Typical activities include:

- + Engaging team members in the identification of improvement opportunities and relevant countermeasures and controls
- + Initiating and facilitating improvement activities through to confirmed resolution
- + Providing local expertise in business improvement methods and basic tools to team

### Job titles

There are a variety of job titles associated with the occupation, these include, but are not limited to: Business Improvement Co-ordinator, Continuous Improvement Executive, Process Technician, Operational Excellence/Lean Engineer, Lean Six Sigma Yellow belt and Quality Control Analyst, Environmental Compliance Technician, Environmental Construction Oversight, Environmental Health and Safety Inspector, and Transportation Planner.

### 2. Entry requirements

There are no formal entry requirements including qualifications for apprentices selecting this apprenticeship standard. Employers and training providers must ensure that apprentices have the potential and opportunity to achieve the apprenticeship standard successfully. Apprentices do not need any prior knowledge, skills or understanding before starting the apprenticeship.



### 3. Qualification details

|                               |                                                                  |
|-------------------------------|------------------------------------------------------------------|
| Regulator                     | The Office of Qualifications and Examinations Regulation, Ofqual |
| Type                          | End-point Assessment                                             |
| Level                         | 3                                                                |
| Qualification approval number | 610/1529/5                                                       |
| Operational Start date        | 23 <sup>rd</sup> September 2022                                  |
| Operational End date          | 30 <sup>th</sup> September 2025                                  |

### 4. Gateway

Apprentices must ensure they have met gateway requirements for this standard before booking end-point assessment. Apprentices are required to achieve the following mandated qualifications for this standard:

- + Level 2 English
- + Level 2 mathematics

Apprentices are also required to submit the following within one month of passing gateway:

- + A log to support the professional discussion
- + Completion of a project portfolio to evidence completion of an improvement project(s).

Further details on the requirements for gateway can be found in the Gateway Requirements Policy and Improvement Technician Toolkit.

### 5. Duration

Typically, this apprenticeship will take 14-18 months to complete.

### 6. Order of end-point assessment

The assessment methods can be delivered in any order.

### 7. Apprenticeship grading

The apprenticeship is graded fail, pass, merit, distinction. Apprentices must achieve a minimum of a pass in each of the components.



## 8. Re-sits

An apprentice can re-sit a component of their end-point assessment if they fail. In this instance the apprentice cannot be awarded an overall grade of distinction the final grade will be capped at pass.

The re-sit/re-take must be taken within one month of notification of the result of the original EPA, otherwise the entire EPA must be retaken. The re-sit/re-take will be graded pass/merit/distinction and combined with the grades for the other 2 assessment methods to determine the EPA grade. If an apprentice fails the re-sit/re-take they will be required to re-take the EPA in full after a period of further learning.

It is expected that a period of further learning will need to be undertaken if the apprentice has to re-sit any part of the end-point assessment. Achieve+Partners can make exemptions to this ruling should reasons for the fail are deemed to be outside the control of the apprentice.

## 9. External Quality Assurance Organisation

The end-point assessment for Improvement Technician is regulated by The Office of Qualifications and Examinations Regulation, Ofqual.

## 10. End-Point Assessment (EPA) Methods

End-point assessment for this standard includes:

### Multiple Choice test

|                               |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| What are the requirements?    | A 40-minute test that has 40 multiple-choice questions that tests the knowledge assigned to this assessment method. |
|                               | The test can be taken in the workplace or at an assessment centre.                                                  |
|                               | The test is available online.                                                                                       |
| Here are the ways we can help | We provide online mock tests to help prepare your apprentice for the knowledge test.                                |
|                               | We provide an online learning module that supports the preparation for the knowledge test.                          |
|                               | Our online testing platform provides a simple solution that supports apprentices undertake their test.              |
|                               | We provide feedback against the knowledge criteria.                                                                 |



## Project and presentation

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What are the requirements?    | <p>The project takes place over a maximum 4-week period after the gateway period. Apprentices are expected to complete a work-based project that addresses a substantive business problem(s).</p> <p>The presentation will be delivered to an independent assessor, either face-to-face or via online video conferencing.</p> <p>Questions will be asked after the presentation is complete.</p> <p>The presentation will typically last 30-40 minutes, and questioning will typically last 25-35 minutes.</p> <p>The audience for the presentation &amp; questioning must include one employer representative (usually supervisor of the apprentice or above).</p> <p>It can be taken in the workplace or at an assessment centre.</p> <p>The project will cover knowledge, skills and behaviours assigned to this assessment method.</p> |
| Here are the ways we can help | <p>We provide support in identifying a suitable project subject.</p> <p>We provide an online learning module that supports the preparation for the presentation and questioning.</p> <p>We provide feedback against the grading criteria.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Professional Discussion supported by log

|                               |                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| What are the requirements?    | <p>The professional discussion will last 40-50 minutes the independent assessor must ask 13-15 open competence-based questions.</p> <p>The professional discussion can be taken in the workplace or at an assessment centre.</p> <p>The questions will assess the knowledge, skills and behaviours assigned to this assessment method.</p> |
| Here are the ways we can help | <p>We provide an online learning module that supports the preparation for the professional discussion.</p> <p>We provide feedback against the grading criteria.</p> <p>A portfolio of evidence template.</p>                                                                                                                               |



## 11. Requirements of the standard

Apprentices must demonstrate all of the knowledge, skills and behaviours listed in the standard.

| Knowledge statements |                                                                                                                                                                                                 | Method |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| K1                   | Compliance: Legislative and customer compliance requirements including environment and health and safety                                                                                        | KT     |
| K2                   | Team formation & leadership: Improvement team roles and responsibilities in a change environment                                                                                                | PRO/PD |
| K3                   | Self-development: Different sources for knowledge development                                                                                                                                   | PD     |
| K4                   | Project management: Project charter, Gantt chart, reporting documentation, Red Amber Green (RAG) status, communication (verbal and non-verbal channels) and implementation plans                | PRO    |
| K5                   | Change management: Roles of the manager and leader within change. Influencing, reinforcement and coaching principles                                                                            | KT     |
| K6                   | Principles & methods: Six Sigma principles per ISO13053 (International Organisation for Standardisation), interim containment actions, Lean principles                                          | KT     |
| K7                   | Project selection & scope: Selection matrix, scoping tree                                                                                                                                       | KT     |
| K8                   | Problem definition: Exploratory data analysis, data collection planning, problem and goal statements                                                                                            | KT     |
| K9                   | Process mapping & analysis: Supplier Input Process Output Customer (SIPOC), process mapping, value and waste analysis, performance metrics - discrete data                                      | KT     |
| K10                  | Data acquisition for analysis: Data stratification, sampling theory, data types, variation types and sources, data collection tools, operational definition and principles of measurement error | KT     |
| K11                  | Basic statistics & measures: Control charts - discrete data                                                                                                                                     | KT     |
| K12                  | Process capability & performance: Capability analysis - continuous data                                                                                                                         | KT     |
| K13                  | Root cause analysis: Histograms                                                                                                                                                                 | KT     |
| K14                  | Experimentation: Active analysis versus one factor at a time, Plan Do Check Act                                                                                                                 | KT     |
| K15                  | Identification & prioritisation: Brainstorming, selection criteria                                                                                                                              | KT     |
| K16                  | Sustainability & control: Process                                                                                                                                                               | KT     |



| Skills statements |                                                                                                                                                                                                                         | Method |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| S1                | Compliance: Work in accordance with organisational controls and statutory regulations                                                                                                                                   | PRO    |
| S2                | Communication: Share improvement progress through appropriate reporting                                                                                                                                                 | PD     |
| S3                | Project management: Plan, manage and implement improvement activities. Identify and support management of risks. Develop the business case for improvement activity and implementation                                  | PRO/PD |
| S4                | Change management: Engage through communications. Reinforce – positively and negatively. Effectively coach peers                                                                                                        | PRO/PD |
| S5                | Principles and methods: Use a structured method and appropriate improvement tools engaging with subject matter experts to deliver business benefits                                                                     | PRO    |
| S6                | Project selection and Scoping: Identify and scope improvement projects and establish clear measurable objectives                                                                                                        | PRO    |
| S7                | Problem definition: Develop a problem/opportunity statement supported by validated data                                                                                                                                 | PRO    |
| S8                | Voice of the customer: Apply techniques to identify customers, their requirements and translate these to metrics                                                                                                        | PRO    |
| S9                | Process mapping & analysis: Apply process mapping tools to visualise processes, analyse process performance establishing key insights for performance improvement                                                       | PRO    |
| S10               | Lean tools: Apply techniques such as identification and removal of 8 wastes, 5S (Sort, Shine, Set, Standardise, Sustain), standard work, kaizen, visual displays and controls, error proofing, preventative maintenance | PRO    |
| S11               | Data acquisition for analysis: Develop data collection plan and validated measurement processes to understand performance                                                                                               | PRO    |
| S12               | Basic statistics & measures: Establish patterns and trends in data over time using tally, pie, run/trend and pareto charts                                                                                              | PRO    |
| S13               | Data analysis-statistical methods: Identify common and special cause variation                                                                                                                                          | PRO    |
| S14               | Process capability & performance: Analyse product/process performance using good quality data                                                                                                                           | PRO    |
| S15               | Root cause analysis: Use cause and effect diagrams, technique of 5 whys and graphical analysis to understand and verify root causes                                                                                     | PRO    |
| S16               | Identification & prioritisation: Identify and prioritise improvement solutions                                                                                                                                          | PRO    |
| S17               | Benchmarking: Recognise the value of sharing best practice                                                                                                                                                              | PD     |



| Skills statements    |                                                                                                                                                                    | Method                                                     |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| S18                  | Sustainability & control: Create control and reaction plans with detection measures, identify opportunities to embed changes to leverage benefit to the business.  | PRO                                                        |
| Behaviour statements |                                                                                                                                                                    | Method                                                     |
| B1                   | Drive for results: Clear commitment for identifying opportunities and delivering improvements, pays attention to detail                                            | PD                                                         |
| B2                   | Team-working: Helps when asked, works effectively in a diverse team, considers impact of own actions on others, motivates peers                                    | PD                                                         |
| B3                   | Professionalism: Acts in a moral, legal and socially appropriate manner, aligns behaviours to the organisations values, trusted to working on own when appropriate | PD                                                         |
| B4                   | Continuous development: Acts upon feedback, reflects on performance and has a desire for learning                                                                  | PD                                                         |
| B5                   | Safe working: Ensures safety of self and others, challenges safety                                                                                                 | PD                                                         |
| Key                  | KT                                                                                                                                                                 | Multiple choice test                                       |
|                      | PRO                                                                                                                                                                | Project with presentation and questions                    |
|                      | PD                                                                                                                                                                 | Professional discussion supported by portfolio of evidence |