

ST0193 Improvement Technician

Apprenticeship Assessment

Model A

Assessment methods

- Project with question and answer (Q&A)
- Professional Discussion

Model B

Assessment methods

- Project with question and answer (Q&A)
- Portfolio with question and answer (Q&A)

Project with question and answer (Q&A)

Assessment organisations must design apprenticeship assessments to include at least one project and, if applicable, any relevant constraints.

The Q&A session will last up to 60 minutes.

This can be conducted and assessed by the Training Provider.

Rationale

- Mandatory assessment stated in the assessment plan.
- Projects require apprentices to integrate and apply a wide range of knowledge and skills to produce a substantial piece of work with genuine relevance to their role or sector.
- Projects are particularly effective in supporting synoptic assessment, as they require apprentices to plan, research, and deliver outputs that draw upon multiple areas of learning in an integrated manner.

- Q&A can explore understanding by asking apprentices to connect knowledge from different topics, justify decisions and apply learning to broader occupational contexts.

The following will be assessed in the project with Q&A:

AO1: Continuous Improvement Delivery

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K6: Principles & methods: Six Sigma principles per ISO13053 (International Organisation for Standardisation), interim containment actions, Lean principles.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
K7*: Project selection and scope: Selection matrix, scoping tree.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.
K14: Experimentation: Active analysis versus one factor at a time, Plan Do Check Act.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
K15*: Identification and prioritisation: Brainstorming, selection criteria.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.

S6*: Project selection and Scoping: Identify and scope improvement projects and establish clear measurable objectives.	Responsibility and Autonomy	Pass: Takes responsibility for planning and completing assigned CI tasks within agreed parameters. Where relevant, supports colleagues by sharing findings or helping guide improvement actions.
S16: Identification and prioritisation: Identify and prioritise improvement solutions.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.
S5: Principles and methods: Use a structured method and appropriate improvement tools engaging with subject matter experts to deliver business benefits.	Applied Skills	<i>Distinction: Integrates improvement skills resourcefully, selecting and sequencing tools to progress improvement work with minimal oversight. Adapts methods to changing circumstances or emerging findings, demonstrating flexible and insightful application of CI skills to deliver added value.</i>

AO2: Process Mapping and Problem Definition

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K8*: Problem definition: Exploratory data analysis, data collection planning, problem and goal statements.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
K9*: Process mapping and analysis: Supplier Input Process Output Customer (SIPOC), process mapping, value and waste analysis, performance metrics - discrete data.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.
S7*: Problem definition: Develop a problem or opportunity statement supported by validated data.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.
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.	Applied Skills	Pass: Applies appropriate improvement skills to complete tasks and address problems with reasonable autonomy. Uses recognised improvement tools correctly and contributes effectively to CI activities within their area.

<i>S8*: Voice of the customer: Apply techniques to identify customers, their requirements and translate these to metrics.</i>	<i>Information Use and Decision Making</i>	<i>Distinction: Evaluates diverse, complex and sometimes conflicting information sources with insight. Draws well-reasoned conclusions that strengthen improvement outcomes, refine problem statements or support smarter prioritisation of solutions.</i>
<i>S9*: Process mapping and analysis: Apply process mapping tools to visualise processes, analyse process performance establishing key insights for performance improvement.</i>	<i>Information Use and Decision Making</i>	<i>Distinction: Evaluates diverse, complex and sometimes conflicting information sources with insight. Draws well-reasoned conclusions that strengthen improvement outcomes, refine problem statements or support smarter prioritisation of solutions.</i>

AO3: Data Collection and Statistical Analysis

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K11*: Basic statistics and measures: Control charts - discrete data.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
K12*: Process capability and performance: Capability analysis - continuous data.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
K13: Root cause analysis: Histograms.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
S11*: Data acquisition for analysis: Develop data collection plan and validated measurement processes to understand performance.	Applied Skills	Pass: Applies appropriate improvement skills to complete tasks and address problems with reasonable autonomy. Uses recognised improvement tools correctly and contributes effectively to CI activities within their area.
S12*: Basic statistics and measures: Establish patterns and trends in data over time using tally, pie, run/trend and pareto charts.	Information Use and Decision Making	Pass: Interprets and evaluates information from process maps, customer feedback, data sources, control charts and problem-solving tools to support decision making in mostly familiar CI scenarios. Uses validated information to form reasonable conclusions about performance issues, root causes or improvement options.

S13*: Data analysis-statistical methods: Identify common and special cause variation.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
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.	Applied Knowledge	<i>Distinction: Applies improvement knowledge with depth and discernment, selecting and applying Lean, Six Sigma, data and problem-solving concepts to suit the context. Shows clear insight when interpreting process behaviour, variation, customer requirements or project constraints, using this understanding to shape and enhance improvement activity.</i>
<i>S14*: Process capability and performance: Analyse product/process performance using good quality data.</i>	Information Use and Decision Making	<i>Distinction: Evaluates diverse, complex and sometimes conflicting information sources with insight. Draws well-reasoned conclusions that strengthen improvement outcomes, refine problem statements or support smarter prioritisation of solutions.</i>
S15*: Root cause analysis: Use cause and effect diagrams, technique of 5 whys and graphical analysis to understand and verify root causes.	Information Use and Decision Making	<i>Distinction: Evaluates diverse, complex and sometimes conflicting information sources with insight. Draws well-reasoned conclusions that strengthen improvement outcomes, refine problem statements or support smarter prioritisation of solutions.</i>

AO4: Project Management and Compliance

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K4*: Project management: Project charter, Gantt chart, reporting documentation, Red Amber Green (RAG) status, communication (verbal and non-verbal channels) and implementation plans.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
S3*: Project management: Plan, manage and implement improvement activities. Identify and support management of risks. Develop the business case for improvement activity and implementation.	Responsibility and Autonomy	<i>Distinction: Anticipates improvement needs and initiates tasks, demonstrating accountability within the scope of their role. Works with others to progress agreed actions, sustaining improvements or resolving emerging issues to help achieve team outcomes.</i>

AO6: Process Control, and Sustainable Adoption

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
<i>S18*: Sustainability and control: Create control and reaction plans with detection measures, identify opportunities to embed changes to leverage benefit to the business.</i>	<i>Regulatory and Procedural Awareness</i>	<i>Distinction: Exercises refined judgement when applying compliance and organisational controls, recognising nuances. Identifies implications of improvement activity and adjusts plans where required to maintain safety, quality and compliance.</i>

NOTE: Knowledge and skills statements in **bold** are mandatory and must be assessed in every version of the assessment that is made available. Knowledge and skills statements in italics will be graded against the relevant distinction grading descriptor.

(*) Knowledge and skills statements which offer opportunities to develop functional English and maths are identified with an asterisk

Model A – Professional discussion

Highfield will assess the professional discussion.

The professional discussion will last up to 60 minutes.

Rationale

- Listed as an optional assessment method available for this standard. Others include observation, simulated task, interview, question and answer, presentation, additional project, written assessment and portfolio.
- This method has been chosen as it allows assessors to tailor questioning to individual performance and supports deeper exploration of complex topics and clarifies areas where evidence may be incomplete or ambiguous.
- Professional discussions can be designed to explore synoptic understanding by asking apprentices to justify decisions and link together multiple strands of knowledge and skills from across the standard.
- Enables apprentices to demonstrate how different strands of knowledge and skills interconnect in response to structured questioning.

Model B - Portfolio with Q&A

Highfield will assess the portfolio with Q&A.

The Q&A session will last up to 60 minutes.

Rationale

- Listed as an optional assessment method available for this standard. Others include observation, simulated task, interview, professional discussion, presentation, additional project and written assessment.
- This method has been chosen as it provides opportunities for the learner to best showcase themselves through the evidence they collate.
- A portfolio with Q&A can be designed to explore synoptic understanding by asking apprentices to justify decisions and link together multiple strands of knowledge and skills from across the standard.
- Enables apprentices to demonstrate how different strands of knowledge and skills interconnect in response to structured questioning.

The following will be assessed in both models of the assessment (Professional discussion/Portfolio with Q&A):

AO4: Project Management and Compliance

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K1: Compliance: Legislative and customer compliance requirements including environment and health and safety.	Regulatory and Procedural Awareness	Pass: Works in accordance with organisational procedures, quality standards, and health, safety and environmental requirements when planning or delivering improvement activities. Applies required controls accurately, showing reliable procedural understanding.
S1: Compliance: Work in accordance with organisational controls and statutory regulations.	Regulatory and Procedural Awareness	Pass: Works in accordance with organisational procedures, quality standards, and health, safety and environmental requirements when planning or delivering improvement activities. Applies required controls accurately, showing reliable procedural understanding.

AO5: Stakeholder Engagement, Change Support and Communication

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K2: Team formation and leadership: Improvement team roles and responsibilities in a change environment.	Communication and Collaboration	Pass: Communicates clearly with team members, process owners and stakeholders when reporting progress, sharing analysis or supporting change. Participates constructively in team discussions, uses appropriate formats for status updates, and contributes positively to collaborative improvement activities.
K3: Self-development: Different sources for knowledge development.	Responsibility and Autonomy	Pass: Takes responsibility for planning and completing assigned CI tasks within agreed parameters. Where relevant, supports colleagues by sharing findings or helping guide improvement actions.
K5: Change management: Roles of the manager and leader within change. Influencing, reinforcement and coaching principles.	Communication and Collaboration	Pass: Communicates clearly with team members, process owners and stakeholders when reporting progress, sharing analysis or supporting change. Participates constructively in team discussions, uses appropriate formats for status updates, and contributes positively to collaborative improvement activities.
S2*: Communication: Share improvement progress through appropriate reporting.	Communication and Collaboration	Pass: Communicates clearly with team members, process owners and stakeholders when reporting progress, sharing analysis or supporting change. Participates constructively in team discussions, uses appropriate formats for status updates, and contributes positively to collaborative improvement activities.

S4: Change management: Engage through communications. Reinforce – positively and negatively. Effectively coach peers.	<i>Communication and Collaboration</i>	<i>Distinction: Communicates persuasively and adapts messages effectively for different audiences when explaining findings, influencing adoption of changes or supporting coaching. Contributes to discussions, encouraging involvement to support team understanding of improvement activities.</i>
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AO6: Process Control, and Sustainable Adoption

Knowledge/Skill Statement	Performance Category	Pass/Distinction Grading Descriptor
K16: Sustainability and control: Process.	Applied Knowledge	Pass: Demonstrates sound application of improvement knowledge when carrying out tasks. Draws on appropriate factual, procedural and methodological knowledge to complete routine and non-routine improvement activities to an acceptable occupational standard.
S17: Benchmarking: Recognise the value of sharing best practice.	Communication and Collaboration	Pass: Communicates clearly with team members, process owners and stakeholders when reporting progress, sharing analysis or supporting change. Participates constructively in team discussions, uses appropriate formats for status updates, and contributes positively to collaborative improvement activities.

*NOTE: Knowledge and skills statements in **bold** are mandatory and must be assessed in every version of the assessment that is made available. Knowledge and skills statements in italics will be graded against the relevant distinction grading descriptor.*

() Knowledge and skills statements which offer opportunities to develop functional English and maths are identified with an asterisk*

Documents required

- Assessment specification
- Assessor guide
- Mock assessment materials
- Assessment feedback report
- Project mapping document
- Written submission sheet
- Portfolio matrix



Resit and retake guidance

- There will be no cap on the grade that apprentices can achieve through a resit or retake
- Apprentices can resit or retake to achieve a higher grade
- There will be no cap on the number of resits or retakes that apprentices can undertake
- The failed assessment method will be resat or retaken in full

Please use the below table to provide feedback on how the **project with Q&A** has been mapped:

Assessment Outcome	Knowledge/ Skills	Performance Category	Pass/ Distinction	Comments
AO1: Continuous Improvement Delivery	K6	Applied Knowledge	Pass	
	K7*	Information Use and Decision Making	Pass	
	K14	Applied Knowledge	Pass	
	K15*	Information Use and Decision Making	Pass	
	S5	<i>Applied Skills</i>	<i>Distinction</i>	
	S6*	Responsibility and Autonomy	Pass	
	S16	Information Use and Decision Making	Pass	
AO2: Process Mapping and Problem Definition	K8*	Applied Knowledge	Pass	
	K9*	Information Use and Decision Making	Pass	
	S7*	Information Use and Decision Making	Pass	
	S8*	<i>Information Use and Decision Making</i>	<i>Distinction</i>	

	S9*	<i>Information Use and Decision Making</i>	<i>Distinction</i>	
	S10	Applied Skills	Pass	
AO3: Data Collection and Statistical Analysis	K10*	<i>Applied Knowledge</i>	<i>Distinction</i>	
	K11*	Applied Knowledge	Pass	
	K12*	Applied Knowledge	Pass	
	K13	Applied Knowledge	Pass	
	S11*	Applied Skills	Pass	
	S12*	Information Use and Decision Making	Pass	
	S13*	Applied Knowledge	Pass	
	<i>S14*</i>	<i>Information Use and Decision Making</i>	<i>Distinction</i>	
	S15*	<i>Information Use and Decision Making</i>	<i>Distinction</i>	
AO4: Project Management and Compliance	K4*	Applied Knowledge	Pass	
	S3*	<i>Responsibility and Autonomy</i>	<i>Distinction</i>	

AO6: Process Control, and Sustainable Adoption	<i>S18*</i>	<i>Regulatory and Procedural Awareness</i>	<i>Distinction</i>	
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Please use the below table to provide feedback on how the **professional discussion** and **portfolio with Q&A** has been mapped:

Assessment Outcome	Knowledge/ Skills	Performance Category	Pass/ Distinction	Comments
AO4: Project Management and Compliance	K1	Regulatory and Procedural Awareness	Pass	
	S1	Regulatory and Procedural Awareness	Pass	
AO5: Stakeholder Engagement, Change Support and Communication	K2	Communication and Collaboration	Pass	
	K3	Responsibility and Autonomy	Pass	
	K5	Communication and Collaboration	Pass	
	S2*	Communication and Collaboration	Pass	
	S4	<i>Communication and Collaboration</i>	<i>Distinction</i>	
AO6: Process Control, and Sustainable Adoption	K16	Applied Knowledge	Pass	
	S17	Communication and Collaboration	Pass	