

Qualification Specification

The Advanced Analytics Solutions Level 6 Improvement Leader Qualification

Qualification number: 610/2358/9

Qualification Summary

Qualification Title	Advanced Analytics Solutions Level 5 Improvement Leader Qualification	
Ofqual qualification number (QN)	610/2358/97	
Guided Learning Hours (GLH)	240	
Total Qualification Time (TQT)	520	
Minimum Age	19	
Qualification Purpose Summary	This qualification is designed for learners who wish to lead the development and deployment of improvement strategy at their organisation, providing leadership in improvement for the business and for training, coaching and supporting Improvement Specialists in advanced analysis. The qualification will require learners to work at the most senior levels of an organisation where they will work closely with all functions of the business to support the setting and achievement of business goals, often accountable for Improvement activities within the largest-scale and highest priority programmes of work.	
Grading	Fail/Pass/Merit/Distinction	
Assessment Methods	Dissertation, Professional Discussion	
Work/Industry placement experience	Learners must produce a portfolio of evidence which must include a range of documents, such as reports from process improvement projects, graphs showing process analysis, charts showing impact readiness, images of House of Quality and extracts from project plans. The Improvement Leader is typically a senior level role, reporting to Board members or Heads of Department and manage (directly and/or matrix) a team of Improvement Specialists, who deploy the strategy and lead improvement projects. It is likely therefore that the learner will either have a full or part time work role or will have a significant work placement.	

Change Control

This section summarises the changes made to this qualification specification.

Version	Publication Date	Summary of Changes
1.0	June 2023	First publication

SECTION ONE - INTRODUCTION

Introduction

If you are using this qualification specification for the purposes of planning training delivery, please ensure that you use the most up to date version.

In the event of a conflict between this document and the assessment plan published by the Institute for Apprenticeships and Technical Education then the latter takes precedence.

Aims and Objectives

This qualification prepares learners to develop Improvement strategy and provide leadership in improvement for the business, to develop processes and resources to support improvement strategy deployment, and to train, coach and mentor Improvement Specialists and senior stakeholders.

Improvement Leaders design and source improvement training solutions for the business and lead large-scale, complex Improvement activities.

Improvement Leaders are a senior role, reporting to the board or Head of Department, and may manage (directly and/or matrix) Improvement Specialists and Practitioners who lead improvement projects aligned to the improvement strategy. They work closely with all functions of the organisation to support the setting and achievement of business goals, often accountable for improvement activities within the largest-scale and highest priority programmes of work.

The objectives of this qualification are to develop skills in:

- Developing Improvement strategy
- Providing leadership in improvement for the business
- Developing processes and resources to support improvement strategy deployment such as guidance for structured project reviews
- · Training, coaching and mentoring Improvement Specialists and senior stakeholders
- Designing and sourcing training solutions for the business
- Leading large-scale, complex Improvement activities and Sustainability (Improvement or Sustainability activities)
- Managing a team of Improvement Specialists

Support Handbook

This qualification specification must be used alongside the Guidance Handbook for Employers, Learners and Training Providers, which is available on request, as well as the formal Assessment Plan available from the Institute for Apprenticeships and Technical Education. This handbook contains additional supporting information to help with planning and delivery. This handbook also contains general information on assessment to help learners, employers and training providers plan.

This qualification specification contains all the qualification-specific information you will need that is not contained in the Guidance Handbook.

Guidance for entry and registration

Registration is at the discretion of the Training Provider, in accordance with equality legislation, and Individual employers will set their own entry requirements – typically, Improvement Specialist Level 5 qualification or an equivalent industry qualification such as Black Belt.

Training Providers are responsible for ensuring that learners are capable of achieving the learning outcomes (LO's) and complying with the relevant literacy, numeracy and health and safety requirements.

Learners registered on this qualification should not undertake another qualification at the same level, or with a similar title, as duplication of learning may affect eligibility for funding.

Achieving this qualification

To be awarded this qualification, learners are required to successfully achieve a pass or better in both mandatory assessment methods by demonstrating achievement of all of the knowledge, skills and behaviour criteria as detailed in this qualification specification.

Refer to the qualification content for further information.

Progression

Learners who achieve this qualification could progress to further learning opportunities, including the following Level 7 Senior Leader.

Resource requirements

There are no mandatory resource requirements for this qualification, but Training Providers must ensure learners have access to suitable resources to enable them to cover all the appropriate learning objectives.

The following are essential resources, without which learners will find it difficult to complete the qualification:

- Standard office IT equipment to gather, analyse and present data
- Data analysis software such as Minitab, JMP, SPSS, SigmaXL, Data Analysis Toolkit

How this qualification is assessed

Assessment is a process of measuring a learner's knowledge and skill against the standards set in a qualification.

This qualification is externally assessed and quality assured.

The assessment consists of two components:

- An externally assessed dissertation, supported by a presentation and questioning
- An externally assessed portfolio of evidence

Learners must achieve at least a pass in both assessments to gain this qualification.

All the evidence generated by the leaner will be assessed against the standards expected of a Level Improvement Leader for each learning objective.

Unless otherwise stated in this specification, all learners taking this qualification must be assessed in English and all evidence presented for external assessment must be in English.

SECTION TWO - CONTENT AND ASSESSMENT GUIDANCE

This section provides details of the structure and content of this qualification.

The types of evidence listed are for guidance purposes only. Other types of evidence are acceptable if all learning outcomes are covered, and if the evidence generated can be externally assessed and quality assured.

The explanation of terms shows how the terms used in the qualification content are applied to this qualification, this is contained in Section Three.

Assessment Method 01 Dissertation, Presentation and Questioning

Assessment Summary

This mandatory assessment element requires Apprentices to produce a dissertation during the EPA period which will be the basis of a 45-50 minute presentation to the apprentice's assessor and a technical expert from the apprentice's employer, with follow up questioning lasting 35-40 minutes immediately after the presentation.

The formal dissertation must consist of a main body, the word count of which must be 4,000 to 4,500 words, with a summary and appendices (which are not included in the word count). The summary must be a concise one-page of A4, visual, follow the principles of 'A3 Thinking' and convey key points in a way that enables messages to be grasped 'within 3 seconds.' Appendices must contain supporting evidence, such as meeting minutes, extracts from business strategy, key performance indicator dashboards, risk log and organisation charts (not included in the word count).

The dissertation must focus on the development and deployment of improvement strategy in their business and be of sufficient scope to demonstrate the knowledge and skills as set out in the Assessment Plan, for example, "A Continuous Improvement Strategy and Deployment plan for department x".

The title and scope of the dissertation must have been agreed between by the EPAO and the employer as a gateway requirement. The EPAO has the final say on the title and scope.

The presentation on the dissertation must be delivered by the apprentice to the assessor and technical expert and must focus on the dissertation, approach, outcomes and evaluation. The technical expert's role is to provide the assessor with clarifications around specific company policy and procedure or technical knowledge only. They must not provide information on behalf of the apprentice, ask the apprentice questions or influence the apprentice in any way. The technical expert must not amplify or clarify points made by the apprentice.

Questions will be devised by the assessor based on the dissertation and presentation observed.

To pass this assessment element learners must achieve a pass grade in all of the KSB elements assessed. To achieve a merit grade learners must achieve a pass in all elements and 10 of the Merit criteria. To achieve a Distinction grade learners must achieve a Merit grade and then achieve an additional 6 of the merit criteria.

KSB Ref. Number	Knowledge, Skill or Behaviour criteria	Learning Objectives The leaner knows The learner can
K1	Strategy Development	To pass, knows:
		Policy deployment principles and Hoshin KanriPorter's 5 forces

		Strengths Weaknesses Opportunities Threats (SWOT)/Political Economic Social Technological Legal Economic (PESTLE) Ansoff's growth matrix Boston Consulting Group growth share matrix GE- McKinsey matrix. For a merit, can: Apply at least 1 tool from the above list (except GE-McKinsey) to support strategy development for the organisation
K2 & S2	Business Benefits	 Net present value Activity based costing in the context of identifying and calculating business benefits associated with improvement programmes. For a merit, can: Apply net present value or activity-based costing in the context of identifying and calculating business benefits associated with improvement programmes. Assess the organisation's approach to calculating business benefits associated with improvement programmes and make recommendations for improvement.
K3 & S3	Team Formation & Leadership	To pass, knows: Team types and constraints Dysfunctional teams Emotional intelligence Neuro- linguistic programming techniques and reinforcement strategies. To pass, can: Apply appropriate tools and techniques to identify, diagnose and resolve sources of under- performance and conflict within teams. For a merit, can: Apply Emotional intelligence or Neuro-linguistic programming to support deployment of the organisation's improvement programme.

K4	Self Development	To pass, knows:
		The latest thinking in Continuous Improvement and Operational Excellence.
		For a merit, can:
		 Assess the organisations approach to staying abreast of latest thinking Continuous Improvement and Operational Excellence and make recommendations for improvement. Establish or improve the organisation's approach to staying abreast of latest thinking Continuous Improvement and Operational Excellence.
K5	Presentation & Reporting	To pass, knows:
		The principles and benefits of A3 thinking.
		For a merit, can:
		 Guide and support others in A3 thinking. Establish or improve the organisation's approach to A3 thinking.
K10 & S10	Project Selection & Scoping	 The long-term organisational goals and business performance metrics and how these should be used to inform project selection and scoping. Approaches to identify and prioritise improvement opportunities that align with the organisational strategy. For a merit, can: Embed project selection methods across the organisation as part of the organisations long-term strategy for transformation. Assess the organisation's approach to identifying, prioritising and scoping improvement projects and identify recommendations for improvement. Benchmark approaches used by others to identify, prioritise and scope improvement projects and identify opportunities to enhance the business improvement strategy
S1	Strategic deployment of continuous improvement	Develop an improvement strategy for the business which links to the business planning cycle including analysis of the current state and opportunities and considers development of an improvement culture Including deployment and communication plans.

		For a merit, can:
		 Integrate the improvement strategy into other business processes to drive continuous improvement through everyday activities.
S4	Capability Development	To pass, can:
		 Design, source and evaluate learning interventions. Facilitate multi-functional workshops to build capability in improvement principles, methods and/or tools. Assess needs and selection of individuals for different levels of training in improvement principles, methods and/or tools.
		For a merit, can:
		 Assess the organisation's approach to capability development and identify recommendations for improvement. Benchmark approaches used by others to develop capability and identify opportunities to enhance the business improvement strategy.
S5	Project Management	To pass, can:
		 Plan and manage an improvement programme with appropriate levels of governance. Apply processes for managing a portfolio of improvement projects including reporting, escalation, audit and risk management/mitigation.
		For a merit, can:
		 Assess the organisation's approach to at least 2 of the following (in the context of improvement strategy/deployment) and identify recommendations for improvement: Programme management, Governance, Reporting and escalation, Audit and risk management/mitigation Benchmark project management approaches used by others and identify opportunities to enhance the business improvement strategy.
S8	Change Management	To pass, can:
		 Assess the effectiveness of change and identify opportunities to improve outcomes, guiding and supporting others to deliver results.
		For a merit, can:
		 Assess the organisation's approach to change management and identify recommendations for improvement.

		 Benchmark approaches used by others to change management and identify opportunities to enhance the business improvement strategy.
S17	Process Capability & Performance	To pass, can: • Assess the organisation's approach to analysing process capability and identify recommendations for improvement. For a merit, can:
		Benchmark approaches to process capability analysis used by others and identify opportunities to enhance the business improvement strategy.
S21	Failure Mode Avoidance	Assess the organisation's approach to Failure Mode Avoidance and identify recommendations for improvement.
		Benchmark approaches to Failure Mode Avoidance used by others and identify opportunities to enhance the business improvement strategy.

Assessment Method 02 Professional Discussion

Assessment Summary

This mandatory assessment element consists of a learner led professional discussion lasting between 2 hours and 2 hours 20 minutes to include open style questions from the assessor to clarify or follow up evidence.

The apprentice will discuss and present the evidence of their training, learning and workshops undertaken. Their portfolio should clearly demonstrate the KSBs required for this assessment element and must have evidence that is valid, authentic, sufficient and current.

The portfolio of evidence must include a minimum of one set of evidence for each of the topic areas assessed by the professional discussion, the evidence must include a range of documents such as Minitab screen shots of regression analysis, coaching reports and a 1-page summary from the Lean strategy.

The portfolio of evidence must also include evidence relating to the preparation and delivery of a training session delivered to a group of Level 5 delegates in their normal working environment lasting 45-50 minutes. This session may have been delivered during the on-programme phase of the apprenticeship with Level 5 learning outcomes linked to one or two improvement topics; the training session must cover a subject selected from the following list: Project and Change Management, Lean Principles and Tools, Measurement System Analysis and Data Collection Planning, Graphical Analysis and Statistical Analysis, Data Transformation and Process Capability, Experimentation, Optimisation and Modelling, Failure Mode Avoidance.

The training materials must be prepared by the apprentice (they must not deliver published training material prepared by someone else and this requirement will be authenticated by a signed statement provided by the apprentice's employer) and included in the portfolio of evidence. A continuous video recording of the session must be included in the portfolio of evidence. Training materials may include for example PowerPoint presentation, lesson plan, training notes, photographs of white boards, handouts, flipcharts. All training materials and records of delegate feedback must be included in the portfolio of evidence.

Details of other arrangements, including employer representative attendance, may be found in the Guidance Handbook.

To pass this assessment element learners must achieve all criteria at pass level. To achieve a merit in this assessment, all pass criteria and 14 or more merit criteria must be met (of which 1 - 2 are behaviours), to achieve a distinction a further 8 or more distinction criteria must be achieved.

Where a pass, merit or distinction criteria is not shown then it is not available for that KSB element.

KSB Ref. Number	Learning Objectives The learner	
K7 Measurement Systems	To pass, knows:	
	 How to complete a measurement system audit and draw conclusions and recommendations. 	
	For a merit, can:	
	Build the organisation's knowledge and skills in terms Measurement System Analysis.	

K8 Data Analysis – Statistical Methods	To pass, knows:
	How to complete a multiple regression or Binary Logistic Regression analysis study and draw accurate conclusions and recommendations.
	For a merit, can:
	 Guide others on the completion of multiple regression or Binary Logistic Regression analysis studies. Promote the principles and benefits of statistical modelling to the wider organisation.
K9 Experimentation and Optimisation	To pass, knows:
	 How to set-up and complete a designed experiment and draw conclusions and recommendations.
	For a merit, can:
	Guide others in the use of appropriate experimentation tools.
S6 Reviewing Projects and	To pass, can:
Coaching Others	 Coach at least 3 L5 improvement projects and at least 3 L5 coaches (coaching a L4 improvement project) to deliver business benefits, providing specific and accurate feedback to coaches such there is a clear understanding of gaps and next steps required. Mitigates risk of project performance issues.
	For a merit, can:
	 Promote the principles and benefits of coaching to the wider organisation. Assess the organisation's approach to conducting coaching reviews and make recommendations for improvement.
S7 Presentation & Reporting	To pass, can:
	 Listen and respond positively to questions and feedback. Give structured and constructive feedback to others.
S9 Principles & Methods	To pass, can:
	 Clearly communicate the importance of selecting appropriate methods and tools, linking the inputs to one tool to the outputs of another (and vice versa).
	Select and accurately apply appropriate methods and tools to deliver business benefits.
	For a merit, can:
	Establish or improve the organisation's approach to method and tool selection.

S11 Problem	To pass, can:
Definition	
	 Promote the importance of evidence-driven problem definition in everyday work.
	For a merit, can:
	 Assess the organisation's approach to problem definition and make recommendations for improvement.
S12 Voice of Customer	To pass, can:
	 Coach others on the importance of understanding VOC in everyday work. Identify ways that the organisation can improve customer insight through feedback loops to provide focus for improvement activities.
	For a merit, can:
	 Develop and build a plan to enable the organisation to improve customer insight through feedback loops.
S13 Process	To pass, can:
Mapping & Analysis	 Apply process thinking and tools to identify opportunities to improve everyday business and process performance and to maintain ongoing process control.
	For a merit, can:
	 Assess the organisation's approach to mapping and analysing processes and make recommendations for improvement.
S14 Lean Concepts & Tools	To pass, can:
	 Clearly communicate fundamental Lean concepts and how Lean tools can be applied to deliver business benefits using completed Lean improvement projects as evidence, in at least two different business functions. Assess the organisation's approach to Lean strategy and deployment and make recommendations for improving outcomes (or if a strategy does not currently exist then develop a Lean strategy) linking to the business planning cycle Includes analysis of the current state and opportunities, considering development of an improvement culture and Including deployment and communication plans.
	For a merit, can:
	 Engage with the external enterprise to extend and strengthen the organisation's Lean strategy. Benchmark approaches used by others to deploy Lean and identify opportunities to enhance the businesses Lean strategy.

S15 Data	To pass, can:
Acquisition for	
Analysis	 Accurately assess and provide constructive feedback on data acquisition conducted by others in terms of tool selection and application, conclusions and recommendations.
	For a merit, can:
	 Build the organisation's knowledge and skills in terms of data- driven decision-making.
S16 Statistics & Graphical Analysis	To pass, can:
	 Accurately assess and provide constructive feedback on graphical and statistical analysis conducted by others in terms of tool selection and application, conclusions and recommendations.
	 Assess the organisation's approach to measurement and data analysis and make recommendations for improvement that extend the capabilities of the organisation.
	For a merit, can:
	 Build the organisation's knowledge and skills in terms of graphical and statistical analysis. Identify strategies for gathering and analysing life-cycle data in the context of a key product, process or service.
S18 Root Cause	To pass, can:
Analysis	Guide and coach others in the selection and application of tools for root causes analysis to ensure efficiency of approach.
	For a merit, can:
	 Assess the organisation's approach to root cause analysis and make recommendations for improvement.
S19	To pass, can:
Experimentation, Optimisation and Simulation	 Assess the organisation's approach to mathematical modelling and make recommendations for improvement.
	For a merit, can:
	Build the organisation's knowledge and skills in terms of mathematical modelling.
S20 Identification & Prioritisation	To pass, can:
	Develop a Creative Thinking strategy to support improvement activities.
	For a merit, can:

	Build the organisation's knowledge and skills in terms of Creative Thinking principles and tools.
S22 Data Analysis – Statistical Process Control	 Assess the organisation's approach to on-going process control and make recommendations for improvement with reference to the application of Statistical Process Control. For a merit, can:
	 Build the organisation's knowledge and skills in terms of on- going process control with reference to Statistical Process Control.
S23 Benchmarking	To pass, can:
	Develop a benchmarking strategy to support improvement activities.
	For a merit, can:
	Build the organisation's knowledge and skills in terms of benchmarking.
B1 Drive for Results	To pass:
	 Delivers improvements that align to the organisation's key drivers. Guides others to identify enablers/barriers and to take actions to address these in the pursuit of improvements.
B2 Team Working	To pass:
	 Improves team performance and take steps to resolve under- performance issues.
B3 Professionalism	To pass:
	 Demonstrates effective influencing and stakeholder engagement techniques. Demonstrates personal resilience in a changing environment.
	For a merit, can:
	Challenges seniors in the pursuit of improvements.
B4 Strategic Thinking	 Actively seeks out and research new ideas, opportunities, methods and tools. Contributes to a knowledge and best practice sharing network.
	For a merit:

	 Sets up or leads new best practice sharing activities, with written aims, measures of success, scope and governance. Actively contributes to latest thinking in improvement techniques and operational excellence.
B5 Safe Working	To pass:
	Works safely at all times.

SECTION THREE – EXPLANATION OF TERMS

This table explains how the terms used are applied to this qualification (not all verbs are used in this qualification)

Define	Give the meaning of a word or phrase
Demonstrate	Show an understanding of a subject
Describe	Provide details about the subject or item
Explain	Provide details about the subject with reasons showing how or why
Give examples of	Provide relevant examples to support the subject
Identify	List or name the main points
Indicate	Point out or show using words, illustrations or diagrams
Locate	Find or identify
List	Make a list of words, sentences or comments
Outline	Identify or describe the main points
Plan	Think about, organise and present information in a logical way. This could be presented in writing, as diagrams or an illustration.
Show	Give information that includes clear knowledge about the subject
State	Give the main points in brief, clear sentences
Use	Take an item, recourse or piece of information and link it to the question or task.

SECTION FOUR - SUPPORT

Support Materials

The following support materials are available to assist with the delivery of this qualification and are available on our website, via ACE360 or on request.

- Guidance Handbook for Employers, Learners, and Training Providers
- Learning resources
- Guidance materials by KSB

We do not explicity endorse any source of learning materials, but there is a wealth of material available on the topic in academic textbook, media and social domains. Training Providers are cautioned to be circumspect when selecting sources.

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