## **END POINT ASSESSMENT PLAN**

## **FOR**

## IMPROVEMENT PRACTITIONER

## LEVEL 4

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#### END POINT ASSESSMENT PLAN FOR IMPROVEMENT PRACTITIONER LEVEL 4

#### **Summary of End Point Assessment**

This document sets out the requirements for end point assessment (EPA) for the Level 4

**Improvement Practitioner apprenticeship standard**. It is written for end point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship must operate. It will also be of interest to improvement expert apprentices, their training providers and employers.

Full time apprentices will typically spend 14 to 18 months on-programme working towards the apprenticeship standard, with a minimum of 20% of this time being off-the-job training.

Apprentices without English and mathematics at level 2 must achieve level 2 prior to taking their EPA.

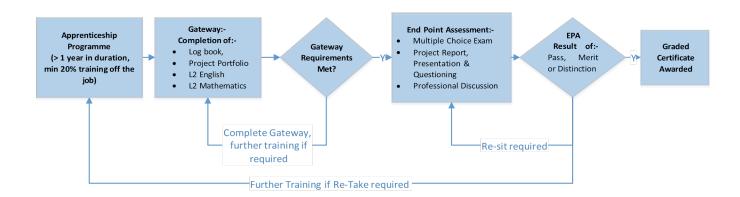
The EPA should only start once the employer is satisfied that gateway requirements for EPA have been met and that the apprentice is consistently working at or above the level set out in the standard.

EPA must be conducted by an EPAO approved to offer services against this standard, as selected by the employer from the Education & Skills Funding Agency's (ESFA) Register of End Point Assessment Organisations (RoEPAO).

The EPA consists of three distinct assessment methods:-

- Multiple choice examination to assess knowledge elements of the standard
- Project report, presentation & questioning to holistically assess knowledge, skills and behaviours (KSBs) in the standard
- Professional discussion underpinned by log to holistically assess KSBs across the standard.

Performance in the EPA will determine the apprenticeship grade of fail, pass, merit or distinction.



## **End Point Assessment Overview**

Assessment Method	Area Assessed	Assessed by	Grading	Weighting
Multiple Choice Examination	Knowledge elements	End Point Assessment Organisation	Fail/Pass/Merit/ Distinction	10%
Project Report, Presentation & Questioning	Knowledge skill and behaviour elements	End Point Assessment Organisation	Fail/Pass/Merit/ Distinction	60%
Professional Discussion, underpinned by Log	Knowledge, skill and behaviour elements	End Point Assessment Organisation	Fail/Pass/Merit/ Distinction	30%

Please note that on-programme assessment does not count toward the EPA/apprenticeship grade. Performance in the 3 assessment methods is combined to determine the EPA and apprenticeship grade of fail, pass, merit or distinction.

#### **End Point Assessment Gateway**

EPA can only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the standard. Employers may wish to take advice from their apprentice's training provider(s).

Employers must ensure that the apprentice has met the following requirements prior to EPA taking place, and provide a signed declaration confirming this to the EPAO in order to trigger the EPA:-

- 1. Completion of a log. The log will typically include one piece of evidence for each KSB that is assessed by the professional discussion, as shown in the coverage matrix in Annex 3.
  - Evidence must be holistically mapped against the KSBs. For example, the apprentice may write up a meeting held with stakeholders to demonstrate team working and communication, and/or examples of application of learning to the wider job role.
  - The log will typically reference between 13 and 15 pieces of evidence. The log will be used to underpin the EPA professional discussion.
- 2. Completion of a project portfolio to evidence completion of an improvement project(s). The improvement project(s) will be the subject of a project report to be produced during the EPA period and the subject of the presentation and questioning. The improvement project must:-
  - Clearly demonstrate delivery of business improvement benefit as confirmed in writing by the apprentice's employer
  - Be completed in the apprentice's workplace
  - Address substantive business problem(s)
  - Follow each step of one of a recognised improvement methodology
- 3. Attained Level 2 English and mathematics.

## The End Point Assessment

The EPA consists of three distinct assessment methods:

- 1. Multiple choice examination to assess the knowledge elements of the standard
- 2. Project report, presentation & questioning to holistically assess KSBs across the standard –based on the apprentice's improvement project(s) as contained in the project portfolio
- 3. Professional discussion underpinned by the apprentice's log, to holistically assess KSBs across the standard

Each assessment methods' contribution to the overall grade of the EPA/apprenticeship is set out in the following table:

Multiple Choice Examination	Project Report, Presentation & Questioning	Professional Discussion, underpinned by log
10%	60%	30%

Pass, merit and distinction criteria for each of the above assessment methods are shown in Annex 1.

Each of the three assessment methods of the EPA needs to be passed in order to gain a minimum grade of 'pass' for the EPA and thus the apprenticeship. The grade from each assessment method is combined reflecting its weighting to determine the EPA grade of pass, merit or distinction, as shown in the matrix in Annex 2.

The EPA must be completed within 2 months of completion of the EPA gateway. By the end of month one, the apprentice must have submitted their log and project portfolio to their EPAO and have prepared their project report and presentation. The project report, presentation & questioning and professional discussion underpinned by the log will take place during month two with a minimum notice period of 2 weeks required. It is anticipated that the report presentation and questioning, and professional discussion underpinned by log will take place on the same day however, this is not a requirement. The multiple choice examination can take place at any point during the EPA period.

A matrix showing the KSBs assessed by each of the assessment methods is shown in Annex 3. **Practical arrangements for the EPA** 

#### Location:-

- As the EPA does not need to be at the workplace or contain any practical tests or demonstrations, any venue for the EPA would be acceptable based on the following criteria:- O Availability of quiet and private rooms suitable for the multiple choice examination, report presentation & questioning and professional discussion underpinned by log to take place. More detailed requirements for each EPA method are given below. Such a venue may be located within employer's premises, or alternately may be rooms hired specifically for the occasion, i.e. at a local hotel.
  - Every effort should be made to ensure that the location selected is geographically close to the apprentice's employer's location. EPAOs must operate, as a minimum, regional EPA locations. Apprentices must not be disbarred or disadvantaged by lack of local EPA locations. The multiple choice examination if taken on-line, report presentation & questioning and professional discussion underpinned by log may be carried out remotely. EPAOs must ensure appropriate methods to prevent misrepresentation are in place should a remote option be chosen. For example, screen share and 360 degree camera function with an invigilator when taking the multiple choice examination on-line remotely.

## Reasonable adjustment:-

Should an apprentice be declared by the employer as having additional learning support
requirements, then appropriate reasonable adjustment should be made by EPAOs. EPAOs must have
in place clear arrangements for making reasonable adjustments for this standard. This should
include how an apprentice qualifies for reasonable adjustment and what reasonable adjustment will
be made.

## Specific detail regarding the multiple choice examination:-

- <u>Location</u>. Availability of a quiet and private room for the examination and with chairs and a standard or larger sized desk available for each apprentice (i.e. desk no smaller than 600\*800mm). Note that if multiple apprentices are undertaking the multiple choice examination at the same time, there should be a minimum gap between each apprentice's desks of 0.5 metres.
- Content and time limit. The multiple choice examination will contain 40 knowledge-based questions and be time limited to 40 minutes. It may be an on-line or paper-based test. Each question will present the apprentice with four options to be selected, (a) (d), from which the candidate must select one option. The candidate may refer to training material/reference books but may not access computer search engines or similar. This is in line with existing practice for assessment in the subject. The multiple choice examination is not a memory test and the ability to refer to material reflects real working environment where improvement practitioners would look things up to inform the right answer. Given the time restraints apprentices will not be able to refer to notes for every answer.
- Administration/Invigilation. An EPAO appointed administrator/invigilator must be present (physical or virtual) in the examination room throughout the duration of the examination. The administrator/invigilator must read from a script to provide apprentice instruction at the commencement of the examination. The administrator/invigilator must also confirm the apprentice's identity through examination of a suitable identity document to be provided by the apprentice (i.e. photo driving license, passport). A maximum of 12 apprentices per administrator/invigilator are allowed, excepting any cases of remote administration/invigilation of on-line tests where a maximum of 4 apprentices per invigilator are permitted.
- Marking. EPAOs will mark the examination. Each correct answer to be assigned one mark, any incorrect or missing answers to be assigned 0 marks. Where an apprentice selects more than one option to any single question, 0 marks are to be awarded. Electronic marking is permissible.
- Scoring. An EPAO marker will record the number of correctly answered questions.
- Questions available. EPAOs must create and maintain a minimum bank of 150 questions,
  representing the range of knowledge from the standard. 40 questions will be drawn at random for
  every test, whilst ensuring full coverage of the required knowledge is achieved. Alternate question
  sets must be used in re-sits and re-takes. A minimum 25% of the question bank questions must be
  refreshed annually.
- Grading criteria. Grading criteria for this element of the EPA are shown in Annex 1.

## Specific detail regarding the project report, presentation & questioning: -

The project report is to be submitted to the EPAO by the apprentice within one month following the EPA gateway. The project report will then be read by the independent assessor prior to the presentation and questioning. This report will also be the subject of the presentation. Questioning on the report will follow the presentation.

- Project Report requirement. The report must detail the improvement project(s) carried out by the apprentice. The improvement project(s) must clearly show a business benefit to the apprentice's employer. Example project titles/scope are shown at Annex 4. The evidence contained in the report will comprise of a series of pieces of work, or sections on the report, related to each one of the steps of one of the recognised problem solving methodologies. This evidence will be generated over the period of the project activities.
- Report format. The report should:
  - o <u>Be a concise</u>, visual summary o Follow the principles of "A3 Thinking " o Convey key points in a way that enables messages to be grasped "within 3 seconds" o Be typically one to three sides of A3 o Include any support documents in an annex which must be submitted with the report and which must be distinct from documents included in the project portfolio

    The report MUST follow each step of one of the recognised problem solving methodologies, e.g. 'Define, Measure, Analyse, Improve, Control' (DMAIC), '8 Disciples (8D), 'Practical Problem Solving' (PPS), and holistically demonstrate how each of the KSB's listed in Annex 3 have been achieved. The project report must be authorised by means of a 'signed statement' from the apprentice's line manager to confirm authenticity and business benefit.
- Grading criteria. Grading criteria for this assessment method is shown in Annex 1.
- Report Presentation and Questioning location. Availability of a quiet and private room for the report presentation and questioning of appropriate size. IT equipment/display space should be available as required by the needs of each apprentice (see following).
- Report Presentation content/scope. The presentation made must be on the project(s) which is the subject of the apprentice's project report, and as such detail the improvement project(s) carried out by the apprentice. It is up to the apprentice how this information is presented, for example through PowerPoint, through a large copy of the project 'A3' report, images or charts. The apprentice must inform the EPAO of their selected method of presenting to allow the EPAO to organise any IT equipment required. It is up to the apprentice to bring all materials to the presentation. The scope of the presentation is limited to the improvement project(s) carried out by the apprentice and should be presented following linearly the steps of the applicable improvement methodology applied to the project(s).

The apprentice should clearly explain the reasons for project selection, how each improvement tool was used, business benefit of the project including a key performance indicator measure (for

example, hours saved, money saved) and how the apprentice worked with a team of people during this project.

- Report Presentation format. The presentation may be in any format (employers have differing 'house styles' and preferred presentation methods) and there are no word or content restrictions. However, the presentation MUST follow each step of one of the recognised problem solving methodologies (e.g. DMAIC, 8D, PPS). Also, the presentation must be authorised by means of a signature from the apprentice's line manager to confirm authenticity and business benefit.
- <u>Project portfolio</u>. The apprentice must bring their project portfolio of evidence to the presentation & questioning and be prepared to show extracts from these to the independent assessor if required during the questioning.
- Questioning specification. The purpose of the report, presentation and questioning is to holistically assess the KSBs required by the standard as set by the coverage matrix in Annex 3. It is expected that the evidence for many of these KSBs will naturally occur in the report and as the apprentice makes their presentation, but it is accepted that there will be some 'gaps'. For each of the required KSBs which are not naturally evidenced through the report and presentation, the independent assessor should ask follow up questions to elicit evidence that the KSBs have been attained, or otherwise. Accordingly, it is not possible to make a discrete list of questions and the skill of the independent assessor is required to identify those 'gap' KSB items and make appropriate skilled questioning. In addition, the independent assessor should ask questions to enable accurate assessment against the pass/merit/distinction criteria where further information is required to address any 'gaps'.

Open questions must be used, for example:-

	Expla	in in detail	Describe		
	Give a	an example	Demonstr	ate	
	Take ι	us through your calculation	Where do	you find	
	of				
	How	did you	What objective.	was	the
•	Timing.	Presentation by apprentice:-		30-40 m	inutes
		Questioning by independent		25-35 m	inutes
		assessor:-			

Hence the report, presentation and questioning method has a maximum time limit of 75 minutes.

- <u>Audience</u>. The audience for the presentation & questioning must include one employer representative (usually supervisor of the apprentice or above). Their role is to confirm validity of the information provided in the question and answer section, provide guidance to the assessor in terms of employer policy and practice where requested and to create a realistic presentation environment. The employer must not amplify or clarify points made by the apprentice. Note that the EPAO judgement lies solely with the independent assessor who alone 'marks' the report, presentation and questioning. Quality assurance staff (internal or external) may also be in attendance.
- Grading criteria. Grading criteria for this element of the EPA are shown in Annex 1.

## Specific detail regarding the professional discussion, underpinned by log: -

The log is to be submitted to the EPAO by the apprentice within one month following the EPA gateway. The log will be reviewed by the independent assessor prior to the professional discussion.

- Grading criteria. Grading criteria for this assessment method is shown in Annex 1.
- <u>Professional discussion location.</u> Availability of a quiet and private room for the professional discussion.
- <u>Log</u>. The apprentice must bring a copy of their log to the professional discussion and be prepared to show extracts from these to the independent assessor if required.
- <u>Professional discussion specification</u>. The purpose of the professional discussion is to holistically assess the KSBs required by the standard as set by the coverage matrix in Annex 3. The independent assessor will typically ask 13 to 15 open questions and can ask follow up questions for clarification to elicit evidence that the KSBs have been attained, or otherwise and to enable accurate assessment against the pass/merit/distinction criteria.

<u>Professional discussion questions</u>. It is not possible to specifically state the questions to be asked at the professional discussion, as these will depend on the results of the review of the log previously carried out by the IA to identify where KSB's required have sufficient evidence or are not sufficiently evidenced. The apprentice will be asked, with reference to their log to explain how KSB's required were practically achieved.

Open questions must be used, for example	Opei	n questions	s must be	used,	for	exami	ole:
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Explain in detail	Describe
Give an example	Demonstrate
Take us through your calculation of	Where do you find
How did you	What was the objective

- <u>Timing.</u> Professional discussion 50 60 minutes
- <u>Audience</u>. The audience for the professional discussion must include one employer representative (usually supervisor of the apprentice or above). Their role is to confirm validity of the information provided in the professional discussion and provide guidance to the assessor in terms of employer policy and practice where requested. The employer must not amplify or clarify points made by the apprentice. Note that the EPA judgement lies solely with the independent assessor who alone 'marks' the professional discussion. Quality assurance staff (internal or external) may also be in attendance.
- Grading criteria. Grading criteria for this element of the EPA are shown in Annex 1.

## End Point Assessment - Final Judgement

The decision on the apprentice's performance in the EPA will be determined solely by an EPAO's independent assessor, subject to moderation (see internal quality assurance section below). It is anticipated that the same independent assessor will mark the project report, presentation & questioning and professional discussion underpinned by log, although this is not a requirement to allow EPAOs flexibility. The independent assessor that conducts the report, presentation and professional discussion assessment will combine the results from each assessment method to determine the EPA/apprenticeship grade as described later in this document.

The apprentice should be notified of the EPA outcome in writing within 4 weeks of the completion of the EPA, including detail of areas for further development and improvement where they have failed.

#### Failure/Re-sit and Re-take information

Apprentices that fail the EPA will have the opportunity to re-sit/re-take. Re-sits/re-takes are not to be offered to apprentices wishing to move from pass to merit/distinction or merit to distinction. A re-sit does not require further learning, whereas a re-take does. The conditions relating to re-sits/re-takes are outlined below.

If the apprentice fails one or more assessment methods, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A resit does not need further learning, whereas a re-take does.

The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and EPAO agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

If the apprentice fails the project assessment method, they must amend the project output in line with the independent assessors' feedback. The apprentice will be given 4 weeks to rework and submit the amended report.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade. The apprentice will get a maximum EPA grade of pass for a re-sit or re-take, unless the EPAO determines there are exceptional circumstances.

### **End-point Assessment - Grading**

Each assessment method will be individually graded – fail, pass, merit, distinction. A fail in one or more of the assessment methods will result in a fail in the EPA.

Points will be awarded for each grade as follows:

Grade	Fail	Pass	Merit	Distinction
Points awarded	0	1	2	3

The points achieved for each method will be multiplied in line with the weighting of the assessment method in terms of its contribution to the EPA/apprenticeship grade, as follows.

	Multiple Choice	Project Report,	Professional
	Examination	Presentation &	Discussion,
		Questioning	underpinned by log
Weighting	10%	60%	30%
Pass	10	60	30
Merit	20	120	60
Distinction	30	180	90

Accordingly, the minimum score attainable with 'pass' in all three methods = 100 The maximum score attainable with 'distinction' in all three methods = 300

Boundaries for overall pass, merit or distinction are set as follows, with 'merit' being set at 50-79% of the range and distinction being set at 80% or greater of the range.

	Pass	Merit	Distinction
Lower Boundary	100	200	260
Upper Boundary	199	259	300

Each potential combination of grades for each individual method may then be tabulated to show the overall grade to be awarded as shown in annex 2.

## **End-point Assessment - Summary of Roles and Responsibilities**

Employer	Selects EPAO (may be advised by training provider).
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ST0192/V1.2
<ul> <li>Confirms all EPA gateway requirements have been met, signs off to this effect and triggers EPA to the EPAO.</li> </ul>
Confirms arrangements with EPAO for the EPA (who, when, where).
<ul> <li>Ensures apprentice is aware of the EPA, is prepared and ready, and ensures attendance.</li> </ul>
<ul> <li>Selects appropriate employee (supervisor or above) to attend the presentation &amp; questioning and professional discussion to ensure accuracy and veracity of the apprentice's presentation and statements.</li> </ul>
May assist employer to select EPAO for EPA.
<ul> <li>May assist employer to confirm that all EPA gateway requirements are completed prior to EPA (e.g. through demonstrating to the employer results of any on-programme testing).</li> </ul>
<ul> <li>May assist employer by making arrangements with an EPAO for the practical aspects of the EPA (who, when, where).</li> </ul>
<ul> <li>Prepares apprentice for EPA during the on-programme phase.</li> </ul>
<ul> <li>Develop and provide all required material and resources required for the EPA (i.e. Multiple choice examination question bank, multiple choice examination drawn from the question bank, multiple choice examination Instruction script, presentation &amp; questioning guide, assessment recording documentation).</li> <li>On receipt of 'trigger' from employer and/or training provider, contact the employer and arrange dates, times and locations for the required EPA.</li> <li>Ensure all required material is present at the EPA venue.</li> <li>Provide appropriate and qualified staff to enable completion of all aspects of the EPA.</li> <li>Confirm result of EPA to apprentice and employer.</li> </ul>
Arrange for certification.
Maintain robust internal quality assurance procedures and moderation.
<ul> <li>Support as requested the activities of the nominated external quality assurance body.</li> </ul>

## **End Point Assessment Organisations**

Employers must choose an EPAO approved to deliver the EPA for this apprenticeship from the Education & Skills Funding Agency's Register of End Point Assessment Organisations (RoEPAO).

EPAOs must appoint independent assessors (IA) to mark the project report and conduct the presentation and interview. The EPAO must approve and appoint individual assessors who meet the following requirements:

- Be independent of the apprentice, their employer and training provider(s)
- Be qualified at level 5 or above in an improvement discipline (Lean, Six Sigma, etc.) and have 2-years' recent (i.e. last 5 years) experience working in improvement, or be approved by the EPAO as meeting this requirement through demonstrable knowledge and experience and currently working in the improvement sector
- Have attended all of the training for the delivery elements of this standard, or attended an
  induction with a recognised provider which details the delivery elements prior to carrying out
  any EPA activities in order to be familiar with the learner journey and KSB of the standard
- Further, prior to carrying out their EPA assessment of an apprentice, any 'new' IA must:- o Have observed 1 assessment carried out by a current IA o Have co-assessed 2 assessments with a current IA

IAs must attend a minimum of TWO standardisation meetings per year in order to be able to continue to assess against this standard.

EPAOs must appoint invigilators/markers to invigilate and mark the multiple choice examination. There are no specific qualification/experience requirements for these individuals however, they must be trained in invigilation/marking practices. Invigilators/markers must be independent of the apprentice, employer and training provider.

#### **Internal Quality Assurance**

Internal quality assurance refers to the requirements that EPAOs must have in place to ensure consistent (reliable) and accurate (valid) assessment decisions. EPAOs for this standard must undertake the following:-

 Appoint invigilators, markers and independent assessors that meet the requirements as detailed above in this plan

- Produce assessment tools and supporting materials for the EPA that follow best assessment practice
- Provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- Provide training for invigilators/markers in invigilation/marking practice
- Have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- Operate regular standardisation events that enable assessors to attend a minimum of 2 events per year
- Operate moderation of assessment activity and decisions, through examination of documentation and observation of activity, with a minimum of 10% of each independent assessors' assessments moderated every 6 months. Individuals completing moderation must to trained in quality assurance.

#### **External Quality Assurance**

External quality assurance arrangements will ensure that EPAOs delivering EPA for this apprenticeship standard operate consistently and in line with this plan.

External quality assurance for this apprenticeship standard will be undertaken by the Institute for Apprenticeships.

## Implementation

**Affordability:** It is anticipated that the EPA will not represent more than 20% of the apprenticeship funding band, based on analysis of quotes received. It is the responsibly of the employer to negotiate a 'best price' through negotiation, including potential reductions where multiple candidates require EPA. Flexibility in the scheduling of assessments and the ability to use technology should enable EPAOs to minimise costs and deliver the EPA in the volumes required. The use of a work-based project to underpin the EPA that delivers business benefit should provide value to the employer.

**Volumes:** It is anticipated that there will be initially 300 starts per year on this apprenticeship but it is expected that this number will grow substantially within the first three years of delivery, with a minimum number of 500 starts by this point.

It is anticipated that organisations will be ready for delivery of the EPA by June 2018.

Annex 1. Pass, Merit and Distinction criteria and Matrix for overall grading.

Pass Criteria  Apprentices must demonstrate all the following criteria  1. Prepare, submit and present a project report to agreed timescales that details one improvement project. The project must:  1. Clearly explains how the outputs of each tool are used to inform the next step (57, 58, 59, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520)  2. Identifies and takes the opportunity to share and/or recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (51, 54, 55, 56, 57, 58, 59, 510, 511, 519, 522)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (512, 513, 514, 515, 516, 517, 518, 520)  2. Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (K2, K4)  Explanation of a during the project (K2, K4)	Project Report, presentation and questioning				
all the following criteria  1. Prepare, submit and present a project report to agreed timescales that details one improvement project. The project must:  Show business benefit to the apprentice's employer (S22) Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (S7) How they used each tool (S6) How they led a crossfunctional team during the	Pass Criteria	Merit Criteria	Distinction Criteria		
1. Clearly explains how the outputs of each tool are used to inform the next step (S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S2)  - Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - With the inform the next step (S7, S8, S9, S10, S11, S19, S12, S13, S14, S15, S16, S17, S18, S20)  1. Clearly explains how the outputs of each tool are used to inform the next step (S7, S8, S9, S10, S11, S15, S16, S17, S18, S19, S20, S2)  2. Identifies and takes the opportunity to share and/or replicate the improvements made to one other area / system where there are differences in baseline metrics (B1)  2. Identifies and takes the opportunity to share and/or replicate the improvements made to one other area / system where there are differences in baseline metrics (B1)  2. Seeks opportunity to share and/or replicate the improvements made to one other area / system where there are differences in baseline metrics (B1)  2. Seeks opportunity to share and/or replicate the improvements made to one other area / system where there are differences in baseline metrics (B1)  2. Seeks opportunity to share and/or replicate the improvements made to one other area / system where there are differences in baseline metrics (B1)  3. Clearly exploration and takes the o	Apprentices must demonstrate	In addition to satisfying all	In addition to satisfying all		
project report to agreed timescales that details one improvement project. The project must:  Show business benefit to the apprentice's employer (S22) Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the apprenjication/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22) Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S19, S20) Present the project using a concise, visual format and include: Explanation of how they chose and scoped the project (S7) How they used each tool (S6) How they led a crossfunctional team during the	all the following criteria	criteria for a Pass:	criteria for a Pass and		
timescales that details one improvement project. The project must:  Step 5, 516, 517, 518, 519, 520, 522  Step 5 show business benefit to the apprentice's employer (S22)  Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (S7)  How they used each tool (S6)  How they used each tool (S6)  How they used each tool (S6)  How they led a crossfunctional team during the	1. Prepare, submit and present a	1. Clearly explains how the	Merit:		
improvement project. The project must:  Show business benefit to the apprentice's employer (S22)  Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S19, S20)  Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (S7)  How they used each tool (S6)  How they led a crossfunctional team during the	project report to agreed	outputs of each tool are used	1. Identifies and takes the		
must: Show business benefit to the apprentice's employer (S22) Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22) Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S19, S20) Present the project using a concise, visual format and include: Explanation of how they chose and scoped the project (S7) How they used each tool (S6) How they led a crossfunctional team during the	timescales that details one	to inform the next step (S7,	opportunity to share		
- Show business benefit to the apprentice's employer (S22) - Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22) - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20) 2. Present the project using a concise, visual format and include: - Explanation of how they chose and scoped the project (S7) - How they used each tool (S6) - How they led a crossfunctional team during the	improvement project. The project	S8, S9, S10, S11, S12, S13, S14,	and/or replicate the		
apprentice's employer (S22) Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22) Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20) Present the project using a concise, visual format and include: Explanation of how they chose and scoped the project (S7) How they used each tool (S6) How they led a crossfunctional team during the	must:	S15, S16, S17, S18, S19, S20,	improvements made to		
- Follow the steps of a recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6) - How they led a crossfunctional team during the	- Show business benefit to the	S22)	one other area / system		
recognised Problem Solving methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (S7)  How they used each tool (S6)  How they led a crossfunctional team during the	apprentice's employer (S22)	2. Identifies and takes the	where there are		
methodology (e.g. PPS, DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6) - How they led a crossfunctional team during the	- Follow the steps of a	opportunity to share and/or	differences in <u>baseline</u>		
DMAIC, 8D) with a clear flow from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (\$1, \$4, \$5, \$6, \$7, \$8, \$9, \$10, \$11, \$19, \$22)  - Demonstrate data-backed decision making to support definition, measurement (\$12, \$13, \$14, \$15, \$16, \$17, \$18, \$20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (\$7)  - How they used each tool (\$6)  - How they led a crossfunctional team during the		replicate the improvements	metrics (B1)		
from one step to another and supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the	0, , 0	·	• •		
supported by the application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  Present the project using a concise, visual format and include:  Explanation of how they chose and scoped the project (S7)  How they used each tool (S6)  How they led a crossfunctional team during the		,			
application/interpretation of appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the	·		•		
appropriate Lean, Six Sigma, Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  Present the project using a concise, visual format and include: Explanation of how they chose and scoped the project (S7) How they used each tool (S6) How they led a cross- functional team during the		·	-		
Project and Change Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a cross- functional team during the	, ,		work (B4)		
Management tools (S1, S4, S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the		(B1)			
S5, S6, S7, S8, S9, S10, S11, S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the					
S19, S22)  - Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the					
- Demonstrate data-backed decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the					
decision making to support definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include: - Explanation of how they chose and scoped the project (S7) - How they used each tool (S6) - How they led a cross- functional team during the	, ,				
definition, measurement, analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include: - Explanation of how they chose and scoped the project (S7) - How they used each tool (S6) - How they led a cross- functional team during the					
analysis and improvement (S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the					
(S12, S13, S14, S15, S16, S17, S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the	·				
S18, S20)  2. Present the project using a concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the					
<ul> <li>2. Present the project using a concise, visual format and include:</li> <li>Explanation of how they chose and scoped the project (S7)</li> <li>How they used each tool (S6)</li> <li>How they led a crossfunctional team during the</li> </ul>					
concise, visual format and include:  - Explanation of how they chose and scoped the project (S7)  - How they used each tool (S6)  - How they led a crossfunctional team during the	, ,				
<ul> <li>Explanation of how they chose and scoped the project (S7)</li> <li>How they used each tool (S6)</li> <li>How they led a crossfunctional team during the</li> </ul>					
chose and scoped the project (S7)  How they used each tool (S6) How they led a crossfunctional team during the	·				
(S7) - How they used each tool (S6) - How they led a cross- functional team during the	- Explanation of how they				
- How they used each tool (S6) - How they led a cross- functional team during the	chose and scoped the project				
- How they led a cross- functional team during the	(S7)				
functional team during the	- How they used each tool (S6)				
	- How they led a cross-				
project (K2, K4)	functional team during the				
	project (K2, K4)				

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3. How they coached colleagues in	
the application of improvement	
tools (S3)	

## Project Report, presentation and questioning - Fail Criteria

The apprentice will be deemed as a 'fail' for the project report element if the criteria for 'Pass' grade are not met, specifically the apprentice will fail should they meet any one or more of the criteria below:-

- Not submit their project report to the EPAO within one month following the gateway
- Not provide a statement signed by their employer authenticating the project report and presentation and confirming business benefits associated with the improvement project
- Not demonstrate their role in setting-up and leading others in an improvement team (i.e. worked alone without communication and consultation throughout the project)
- Fail to address a substantive business problem/opportunity in the workplace
- Are unable to demonstrate that sustainable business benefits have been delivered into the business as a result of any project(s) carried out
- Not demonstrate that they have applied a recognised methodology (e.g. PPS, DMAIC, 8D)
- Not correctly applied and/or interpreted Lean, Six Sigma, Project and Change Management tools
- Fail to demonstrate data-backed decision making to support definition, measurement, analysis and improvement or equivalent phases of the recognised methodology being applied.
- Not present the project using a concise, visual format
- Not demonstrate holistically through the project report, presentation and questioning, their knowledge and skills as set out in Annex 3 and as detailed in the L4 standard

Professional Discussion underpinned by Log				
Pass Criteria	Merit Criteria	Distinction Criteria		
1. Provide evidence of their	In addition to satisfying all	In addition to satisfying all		
behaviours as detailed in the L4	criteria for a Pass:	criteria for a Pass and Merit:		
standard (B1, B2, B3, B4, B5)	2. Identifies opportunities for	1. Takes the opportunity to		
2. Clearly explain:	cross-functional improvement	prepare and/or deliver		
Methods used for making	(B1)	training to upskill colleagues		
decisions in the project team	2. Supports delivery of	(B1)		

(K2)

- How they engaged and influenced others (S2)
- Their coaching skills as set out in the L4 standard (S3)
- Their approach to Project Management (S4)
- Their approach to Change Management (\$5)
- Their approach, results and learning relating to developing skills in Experimentation and Optimisation as set out in the L4 standard (S18)
- Their use of benchmarking to inform target setting and improvement options (S21) 3.
   Critically evaluates their improvement journey and identifies recommendations for improvement/change (e.g. "If I were to do this again I would...") (B4)

business-wide improvement projects led by Improvement Experts (B4)

2. Seeks opportunities to involve others in building a Continuous Improvement culture (B4)

## **Professional Discussion underpinned by Log Fail Criteria**

The apprentice will be deemed as a 'fail' for the professional discussion element if the criteria for 'Pass' grade are not met, specifically the apprentice will fail should they meet any one or more of the criteria below:-

- Not submit their CPD log to the EPAO within one month following the gateway
- Not demonstrate holistically, their knowledge skills and behaviours as set out in Annex 3 and as detailed in the L4 standard
- Not explained how they involved others in decision making and how they influenced others
- · Not clearly planed the management of the project and the management of change

Multiple Choice Examination (maximum obtainable = 40 marks)			
Pass Criteria	Merit Criteria	Distinction Criteria	
25 to 29 marks 30 to 35 marks		36 marks or greater	
Fail Criteria – Less than 25 marks	•		

# Annex 2. Grading matrix

Tabulated individual grades and overall award:-

Results for each	esults for each assessment method  Corresponding score for each assessment method		Overall Grade Score to be				
Multiple	Project Report,	Professional	Multiple	Project	Professional	30010	awarded
Choice	Presentation &	Discussion,	Choice	Report,	Discussion,		
Examination	Questioning	underpinned	Examination	Presentation	underpinned		
		by log		& Questioning	by log		
FAIL	ANY	ANY	0	ANY	ANY	N/A	Fail
ANY	FAIL	ANY	ANY	0	ANY	N/A	Fail
ANY	ANY	FAIL	ANY	ANY	0	N/A	Fail
PASS	PASS	PASS	10	60	30	100	PASS
PASS	PASS	MERIT	10	60	60	130	PASS
PASS	PASS	DISTINCTION	10	60	90	160	PASS
PASS	MERIT	PASS	10	120	30	160	PASS
PASS	MERIT	MERIT	10	120	60	190	PASS
PASS	MERIT	DISTINCTION	10	120	90	220	MERIT
PASS	DISTINCTION	PASS	10	180	30	220	MERIT
PASS	DISTINCTION	MERIT	10	180	60	250	MERIT
PASS	DISTINCTION	DISTINCTION	10	180	90	280	DISTINCTION
MERIT	PASS	PASS	20	60	30	110	PASS
MERIT	PASS	MERIT	20	60	60	140	PASS
MERIT	PASS	DISTINCTION	20	60	90	170	PASS
MERIT	MERIT	PASS	20	120	30	170	PASS
MERIT	MERIT	MERIT	20	120	60	200	MERIT
MERIT	MERIT	DISTINCTION	20	120	90	230	MERIT
MERIT	DISTINCTION	PASS	20	180	30	230	MERIT
MERIT	DISTINCTION	MERIT	20	180	60	260	DISTINCTION
MERIT	DISTINCTION	DISTINCTION	20	180	90	290	DISTINCTION
DISTINCTION	PASS	PASS	30	60	30	120	PASS
DISTINCTION	PASS	MERIT	30	60	60	150	PASS
DISTINCTION	PASS	DISTINCTION	30	60	90	180	PASS

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DISTINCTION	MERIT	PASS	30	120	30	180	PASS
DISTINCTION	MERIT	MERIT	30	120	60	210	MERIT
DISTINCTION	MERIT	DISTINCTION	30	120	90	240	MERIT
DISTINCTION	DISTINCTION	PASS	30	180	30	240	MERIT
DISTINCTION	DISTINCTION	MERIT	30	180	60	270	DISTINCTION
	_						

DISTINCTION DISTINCTION 30	180	90	300	DISTINCTION
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# Annex 3. Knowledge, Skills and Behaviours to be assessed by each assessment method:-

Assessment method	Key
Multi Choice Examination	E
Project Report, Presentation & Questioning	R
Professional Discussion, underpinned by log	Р

Knowledge statement	End Point
	Assessment Method
1. Compliance	E
2. Team formation and Leadership	R,P
3. Project management	E
4. Presentation and Reporting	R
5. Change Management	E
6. Principles and Methods	Е
7. Project Selection and Scope	E
8. Problem definition	Е
9. Process mapping and Analysis	E
10. Data Analysis	E
11. Measurement systems	Е
12. Basic Statistics and measures	Е
13. Data analysis – statistical methods	E
14. Process capability and Performance	Е
15. Root cause analysis	E
16. Experimentation	E
17. Identification and prioritisation	E
Skills statements	Assessment
	method
1. Compliance	R
2. Communication	Р
3. Coaching	R
4. Project management	R, P
5. Change management	R,P
6. Principles and Methods	R
7. Problem Selection and Scoping	R
8. Problem Definition	R
9. Voice of the Customer	R

10. Process Mapping and Analysis	R
11. Lean Tools	R
12. Measurement Systems	R
13. Data Acquisition for Analysis	R
14. Basic Statistics and Measures	R
15. Data Analysis – Statistical Methods	R
16. Process capability and performance	R
17. Root Cause Analysis	R
18. Experimentation and Optimisation	R,P
19. Identification & Prioritisation	R
20. Data Analysis – SPC	R
21. Benchmarking	Р

22. Sustainability & Control	R
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Behaviour statements	Assessment method
1. Drive for results	Р
2. Team-working	Р
3. Professionalism	Р
4. Continuous Development	Р
5. Safe Working	Р

## Cross map of EPA methods:-

Closs map of EFA methods.																	
Knowledge	K1	K2	K3	K4	KS	K6	К7	К8	K9	K10	K11	K12	K13	K14	K15	K16	K17
(E) Multiple Choice																	
Examination																	
(R) Project Report,																	
Presentation &																	
Questioning																	
(P) Professional																	
Discussion,																	
underpinned by																	
log																	
Skill										S10	+						
	51	25	83	<b>S4</b>	S5	98	S7	88	65	S1	\$11						

(E) Multiple Choice Examination											
(R) Project Report, Presentation & Questioning											
(P) Professional Discussion, underpinned by log											
	\$12	\$13	\$14	\$15	516	\$17	818	819	820	521	\$22
(E) Multiple Choice Examination											
(R) Project Report, Presentation & Questioning											
(P) Professional Discussion, underpinned by log											

Behaviour	B1	B2	B3	B4	B5
(E) Multiple Choice Examination					
(R) Project Report, Presentation & Questioning					
(P) Professional Discussion, underpinned by log					

# Annex 4. Generic example project titles - for illustration only

Project Area	Key Metric
Accounts	Invoice processing time - days
Finance/Control	Cash flow - monthly overdraft limit/cost
HR/Training	Availability of required skill set - %
Logistics	Quality of product received from Tier 1
Purchasing	Spend on materials, services and utilities-
Quality	Removal of major non-conformances
Sales	Enquiry to order processing time - days
Resource/Equipment	Scrap material reduction - £
Product/Service Quality	Supplier Quality Performance - %
Design	Product Approval leadtime for export