Improve
food & drink sector skills council

662 Principles of Evolutionary Operations (EVOP) in a food environment		
SQA Unit Code		**H16N 04**
Level 3	**SCQF Level 7**	**SCQF Credit value 4**

Unit Summary
This unit is about the understanding the principles of evolutionary operations (EVOP) as part of your organisation's drive to achieve excellence in food and drink manufacture and/or supply operations. This is important to the manufacture, processing and supply of food and drink within the food supply chain, where for example food safety is a critical factor.

You will need to understand the principles behind evolutionary operations (EVOP) and the business benefits of using them during an achieving excellence programme. You will need to understandthe advantages and disadvantages of using EVOP and how this technique can support imporvements. You will need to know how to comply with your company policy for improvement, understand how to take responsibility for your actions, and refer any issues outside of the limit of your authority to others.

This unit is for you if your role requires you to understand the principles of evolutionary operations (EVOP) in food and drink manufacture or supply. You may be a line manager or supervisor and/or have responsibilities for all or part of the production/supply process and for promoting improvements

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor.

You need to know and understand:

Evidence of knowledge and understanding should be collected during observation of performance in the workplace. Where it cannot be collected by observing performance, other assessment methods should be used.

1. How the health, safety and hygiene requirements of a work area can influence evolutionary operations
2. The advantages and disadvantages to using EVOP
3. Why EVOP is used as an improvement activity
4. How EVOP can be used to support improvements in food manufacture
5. What is meant by a cycle and a phase
6. The data gathered during an EVOP activity
7. How EVOP is used in Six Sigma improvement projects
8. How, why and when an EVOP should be re-run
9. What statistics should be calculated in applying EVOP
10. How to calculate measurements of central tendency and variation
11. How sample size selection ensures the statistical validity of an experiment

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12. The significance of delta/sigma ratio, alpha and beta risk to experiments 13. EVOP boards and their creation 14. How to complete cost/benefit analysis within EVOP 15. How full factorial, 2_k factorial and fractional factorial experiments are used 16. How graphs are used to determine main effects and interactions 17. Why it is important to identify suitable optimal conditions 18. The use of action plans in helping to ensure optimum conditions are implemented 19. Levels of authority linked to problem resolution
Evidence of performance may employ examples of the following assessment: • observation • written and oral questioning; • evidence from company systems (e.g. Food Safety Management System) • reviewing the outcomes of work • checking any records of documents completed • checking accounts of work that the candidate or others have written