

Unit Title: **Investigating and Defining Customer Requirements for ICT Systems**

OCR unit number: 228
 Level: 4
 Credit value: 15
 Guided learning hours: 90
 Unit reference number: R/602/1772

Candidates undertaking this unit must complete real work activities in a work environment. Simulation is only allowed in exceptional circumstances (please refer to the centre handbook for further details).

Unit aim and purpose

This unit provides learners with a thorough grounding in requirements elicitation and the creation of specifications. It provides an overview of current methodologies used to capture customer needs and produce accurate models of needs within known constraints. It then gives the learner the opportunity to apply these models in a real world environment.

Learning Outcomes	Assessment Criteria	Knowledge, understanding and skills
<p>The Learner will:</p> <p>1 Control the investigation of existing and proposed systems and processes</p>	<p>The Learner can:</p> <p>1.1 Select and use the investigative methods which will elicit relevant information about existing and proposed systems and processes</p> <p>1.2 Create the documentation required to record the results of investigations</p> <p>1.3 Ensure that investigative methods are applied correctly and all relevant information is recorded using standard documentation</p> <p>1.4 Ensure that the confidentiality of customer information is preserved</p> <p>1.5 Provide advice and guidance to colleagues on investigation and analysis of information</p>	<p>Candidates must:</p> <ul style="list-style-type: none"> • understand systems development lifecycle e.g. Waterfall, Spiral, unified process, Agile • know how to create project documentation, feasibility study requirements specification, functional and non-functional • know how to elicit information such as surveys, interviews, observation • use investigative techniques such as participatory and soft-systems methods • understand quality processes, code-walkthroughs, project reviews • understand the need to ensure confidentiality of customer information and associated legislation

<p>2 Analyse information to identify needs and constraints</p>	<p>2.1 Explain the types of defect, and their causes which can arise in information</p> <p>2.2 Describe methods of minimising defects in information</p> <p>2.3 Explain how customer needs and constraints can affect the design of an ICT system</p> <p>2.4 Analyse information to identify customer needs and priorities for:</p> <ul style="list-style-type: none"> • data to be stored and processed • functionality in terms of inputs, processes and outputs • capacity including numbers of users, throughput, and data storage <p>2.5 Analyse information to identify customer constraints</p> <p>2.6 Verify that identified needs, priorities and constraints meet customer requirements</p>	<p>Candidates must:</p> <ul style="list-style-type: none"> • understand issues relating to transpositions of data, mistranslation of requirements between functional areas, jargon words and correct use of formal language, role of data dictionary and project glossaries • understand stakeholder management and quality assurance processes, triangulation of data between stakeholder groups, user participation in requirements capture • understand alignment of customer needs with project, classification of requirements (essential, desirable, hoped-for) • understand the danger of privileging user statements rather than problem investigation and that users may not be the best judge of an optimal solution • understand architecture (systems, knowledge and data), load balancing, storage planning and concurrent user activity • know how to undertake analysis of requirements and systems design, UML, flowcharting, process charts, control charts • know how to undertake testing including test-driven development and user acceptance testing • understand project completion, handover, rollout planning
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Assessment

Candidates undertaking this unit must complete real work activities in order to produce evidence to demonstrate they are occupationally competent. Real work is where the candidate is engaged in activities that contribute to the aims of the organisation by whom they are employed, for example in paid employment or working in a voluntary capacity.

Simulation is only allowed for aspects of units when a candidate is required to complete a work activity that does not occur on a regular basis and therefore opportunities to complete a particular work activity do not easily arise. When simulation is used, assessors must be confident that the simulation replicates the workplace to such an extent that candidates will be able to fully transfer their occupational competence to the workplace and real situations.

Internal quality assurance personnel must agree the use of simulated activities before they take place and must sample all evidence produced through simulated activities.

It is the assessor's role to satisfy themselves that evidence is available for all performance, knowledge and evidence requirements before they can decide that a candidate has finished a unit. Where performance and knowledge requirements allow evidence to be generated by other methods, for example by questioning the candidate, assessors must be satisfied that the candidate will be competent under these conditions or in these types of situations in the workplace in the future. Evidence of questions must include a written account of the question and the candidate's response. Observations and/or witness testimonies must be detailed and put the evidence into context ie the purpose of the work etc.

All of the assessment criteria in the unit must be achieved and clearly evidenced in the submitted work, which is externally assessed by OCR.

Evidence for the knowledge must be explicitly presented and not implied through other forms of evidence.

Evidence requirements

All aspects of the assessment criteria must be covered and evidence must be available that shows where and how the assessment criteria have been achieved.

Assessment Criterion 1

Candidates should produce a portfolio of evidence including:

- full documentation and other evidence of achieving assessment criteria by undertaking a significant investigation into the requirements for a substantial system.
- evidence of using standard organisational processes and document templates for completing the elicitation exercise
- evidence of working as part of a team and providing guidance to others on a number of aspects of systems investigations

Assessment Criterion 2

Candidate should produce the following evidence:

- A presentation explaining common defects in information, including incorrect financial and other numerical data, misunderstanding between functional areas and failure of communications channels to keep all team members adequately informed
- A portfolio of evidence where the learner demonstrates their skills in creating specifications, business, technical (functional and non-functional) and testing
- In particular candidates should demonstrate that using the data they have collected they can describe
 - The full range of data to be stored and processed
 - Describe functionality in terms of inputs, processes and outputs

- Explain the storage and processing capacity taking account of numbers of users, data throughput, and data storage
 - The portfolio will need to provide evidence that the solution identified takes account of the needs, priorities and constraints indicated by the analysis of customer requirements
- A sign-off from project sponsor and project board as well as customer lead stakeholder

Guidance on assessment and evidence requirements

Evidence for this unit can only be achieved through actual work in a work environment, simulation is not permissible.

Assessment evidence should be Learning Outcome-based and be offered in the form of assignments, project-portfolios, presentations and reflective accounts.

Where group work/activities contribute to assessment evidence the individual contribution of each candidate must be clearly identified.

All evidence must be available to review. Candidates should use real situations or observations from work placement, care should be taken to ensure that the record of observation accurately reflects the candidate's performance, this should be signed, dated, and included in the evidence. It is best practice to record another individual's perspective of how a practical activity was carried out. Centres may wish to use a witness statement as a record of observation, this should be signed and dated and included in the evidence.

You should refer to the '*Admin Guide: Vocational Qualifications (A850)*' for *Notes on Preventing Computer-Assisted Malpractice*.

Additional information

For further information regarding administration for this qualification, please refer to the OCR document '*Admin Guide: Vocational Qualifications*' (A850) on the OCR website www.ocr.org.uk .