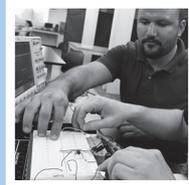


Work place Core Skills Unit

PROBLEM SOLVING SCQF level 3 Assessment Support Pack



What are Core Skills?

Core Skills are skills and abilities which everyone needs in their work. This is true for every job in every workplace.

The Core Skills are:

- Communication
- Numeracy
- Information and Communication Technology
- Problem Solving
- Working with Others

Employers look for Core Skills when they are appointing new staff. They also expect their existing staff to have these skills.

Core Skills are important because they help you work effectively in your present job and also prepare you for jobs which you will do in future. Developing your Core Skills helps you deal with today's rapidly changing world and improve your career prospects.

Part 1: Information for assessors

What is involved?

The Unit is designed for the workplace and the content should involve tasks and skills that are suited to the requirements of the candidate's working environment.

The focus of the Unit is on transferable problem-solving skills:

- ◆ critical thinking (investigating)
- ◆ planning and organising (planning and solving)
- ◆ reviewing and evaluating (checking and evaluating)

These skills should be useful to candidates in their current and future jobs, as well as in their social and personal lives.

The Unit is designed for those who have little or no skill and experience in problem-solving skills within the workplace. The work undertaken in the assessments should be simple and routine, eg at trainee level. The Unit might be suitable for candidates who are currently working towards an SVQ/NVQ at level 1 or level 2.

Problem Solving tasks can be combined with the other Core Skills Units: Communication, Numeracy, Information and Communication Technology, and Working with Others. If you adopt this approach, records must be kept for each Unit.

Guidance on the Unit

Candidates at SCQF level 3 are required to develop an approach to deal with a simple problem in a workplace context that is familiar to them. They may need some support to identify a suitable problem that meets the level of the Unit and to understand the tasks to be undertaken either from you, or from a supervisor or other workplace mentor.

The 'What I need to do' section of the Unit lists the knowledge, understanding, and competence that candidates must have and what they need to do to prove this. You may want to discuss these with the candidates. The following notes give detailed pointers on the things candidates need to know and be able to do.

What candidates need to do

Investigating

Candidates will apply critical thinking as the first stage of the problem-solving process. They will investigate and analyse a simple problem to identify the main factors that affect the problem. These factors may include identifying the causes of the problem, looking at why the problem has arisen, and identifying who is involved. It is important that candidates have an understanding of the systems and operating procedures of their workplace (including health and safety requirements) and are aware of the personnel structure. Candidates will need to know which resources are available to them so they can carry out their plan. They should be aware of time constraints and any other limitations.

Planning and solving

Candidates will use the results of their critical thinking to work out a sequential action plan to deal with the problem. The action plan will clearly identify what tasks need to be done, who should do them, the order in which tasks need to be carried out, and if permission is required for any of the tasks included in the action plan. Candidates are required to identify any limitations that may affect their plan, eg financial constraints or available personnel. They will identify appropriate resources required and timescales for completion of each task. Once the action plan is in place, the candidates and any others involved will carry it out.

Checking and evaluating

Once all the tasks specified in the action plan have been completed, the candidates will decide how effective each stage of their problem-solving approach was, using simple criteria provided by you. They will apply the given criteria to each stage of the process, ie analysing the situation and planning and organising the task. This will enable them to identify the strengths and weaknesses of their problem-solving approach.

How do candidates show they have achieved the Unit?

The Unit requires the candidates to provide evidence for each of the three tasks.

Task 1: Investigating

Investigate why a simple problem, situation, or issue related to their work has arisen. Suggest a routine, familiar course of action to deal with it.

Task 2: Planning and solving

Plan, organise, and carry out the suggested course of action.

Task 3: Checking and evaluating

Check how well their approach to the problem-solving activity worked in practice.

Candidates must use only one problem situation to prove that they can do all of the tasks in the Unit. They should not gather evidence from different problem situations for different tasks.

Assessment requirements

The problem, situation, or issue should be in a context that is familiar to the candidate's working environment. There should be a small number of obvious variables and the relationships between these variables will be clear to the candidates. If the problem is less familiar to the candidates, then you should clarify these variables and/or relationships with the candidates so they understand them.

The action plan should include a small number of clear sequential steps indicating tasks to be undertaken. If the problem is less familiar to the candidates these steps should be ones selected by the assessor that would be familiar to the candidates.

Resources should be selected from a familiar range appropriate to the task. Resources might include sources of information, set procedures, people, equipment, and physical resources.

Once the action plan has been worked out, the candidates carry it out. This could include the allocation of some tasks to others in the workplace.

Criteria for reviewing and evaluating the effectiveness of the candidate's problem-solving approach should be provided by you. The criteria should be simple and may include keeping within timescale, keeping within budget, using appropriate resources, and effective allocation of tasks.

Gathering evidence

It may be appropriate for you to gather written evidence produced by the candidates while carrying out the practical tasks. However, written evidence is not essential and is inappropriate if it disadvantages the candidate.

You may wish instead to observe the candidate carrying out a task and use oral questioning. This requires you to create and complete a record of questions asked and candidate responses.

From the candidate's point of view, it is useful to have the means of keeping all the work of this unit together. You can help here by creating and providing a workbook that includes all the evidence-gathering items. An alternative would be to provide worksheets that can be made into a portfolio or e-portfolio.

If you have chosen to integrate the problem-solving work with other Units being undertaken by the candidate, it may be possible to assess the problem-solving process as part of a larger single activity. In this case you must keep separate records for this Unit.

You should try to identify naturally occurring opportunities for assessment where possible. Some of the exemplars in this pack could be used or contextualised for this purpose.

The assessment process is likely to involve one or more of the following:

- ◆ observation
- ◆ recording
- ◆ oral questioning

When assessing by observation, you must keep a detailed checklist. Similarly, if you use oral questioning, you must keep a record of both the questions and the candidate responses. All evidence, whether produced by the candidate or a record made by you, must be retained, signed, and dated by you.

Planning

You should work out where opportunities for meeting the Unit standards are likely to arise. Where possible, these should be built into the assessment process.

You should explain and discuss this assessment process with the candidates so that they are clear about what is expected of them.

Part 2: Exemplar assessment tasks

Note for assessors

You can use the exemplar assessments given in this section in several ways:

- ◆ to illustrate to candidates the type of materials that could be used to generate evidence
- ◆ to identify the type and amount of evidence that candidates should have gathered in their portfolio
- ◆ to help identify the level of complexity in evidence required for the Core Skill at this level
- ◆ to help you to identify/create an assessment task related to the candidate's own work environment
- ◆ as an off-the-shelf assessment, although every effort should be made to source/provide candidates with assessment materials that relate to their specific area of work

Exemplar assessment

Visitors to your workplace find it difficult to find your work area. Your supervisor asks you to look at how the signposting can be improved. You should:

- 1 Examine the existing signposting and find out the reasons why it is not effective.
- 2 Decide on the best way to improve the signposting.
- 3 Draw up an action plan. You will need to decide what tasks need to be done; who is the best person to carry out each task; are there any limitations such as time or money; do you need permission to carry out any of the tasks.
- 4 Choose the resources you will need, eg information, equipment, or help from other people.
- 5 When your plan is complete put it into practice.
- 6 Use criteria suggested by your assessor to decide how effective your approach to solving the problem has been.

Marking notes

Task 1: Investigating

At this level candidates should be able to identify a small number of obvious variables, at least three, with clear relationships between them.

Examples of variables relating to the exemplar assessment might include:

- ◆ lack of signs in the workplace
- ◆ signs not clearly displayed
- ◆ signs that are poorly presented
- ◆ information that is out of date

Following from this the candidates may suggest that new clear signs showing the correct information are produced and displayed at appropriate areas of the building. Permission and guidance from managers will have been sought and obtained.

Task 2: Planning and solving

Examples of tasks in the action plan relating to the exemplar assessment might include:

- ◆ checking the premises for existing signs
- ◆ checking the accuracy of the accommodation of colleagues
- ◆ designing new signs
- ◆ producing new signs
- ◆ arranging for these to be displayed
- ◆ consulting colleagues and visitors to review the effectiveness of new signs

Resources might include a PC and appropriate software for designing signs, reprographics, and organisation charts.

People may include the candidate's line manager, health and safety personnel, graphic designers, receptionists, and colleagues. Tasks should be planned to be carried out in a logical order, with the two investigative stages above preceding the design, production, and positioning of the new signage. An appropriate timescale for these activities should be agreed. The final stage would involve checking to see if colleagues and visitors view the change as an improvement.

Task 3: Checking and evaluating

At this level you should give candidates criteria to use to assist the review and evaluation process. Examples from the exemplar assessment might include:

- ◆ Keeping to an agreed timescale — did any of the tasks take too long?
- ◆ Having appropriate resources — could you have used anything else to help?
- ◆ Did everyone involved work effectively — were the tasks appropriately allocated to people; did people provide support when it was needed; did people provide appropriate information?
- ◆ Was the solution overall a good one in that the replacement signs work better than the original ones?

Candidates should use the given criteria to identify the strengths and weaknesses of their action plan. Where any weaknesses are found, candidates should suggest alternative strategies that could be used for future problem solving.

Part 3: Exemplar recording documentation

This section gives some examples of forms that could be used by the candidates and/or assessor to gather evidence and record assessment decisions.

You are encouraged to adapt these materials to suit you and your candidate's preferred approach, ie boxes can be made bigger, format can be changed to a non-table format, font size etc.

Assessment plan

You should work out where naturally occurring opportunities for meeting the standards are likely to arise and, where possible, build them into the assessment process.

You should explain and discuss the assessment process with candidates so they are clear about what is expected of them.

Record sheets

Record sheets are provided for each of the three tasks:

Task 1: Investigating

Task 2: Planning and solving

Task 3: Checking and evaluating

The candidates can provide written answers on these forms. Alternatively, if you use oral questioning, you may use them to write down the candidates' answers.

Assessment checklists

Candidates could use the assessment checklists as a means of cross-referencing evidence in their portfolio to the Unit.

Assessors could use the assessment checklists to record assessment decisions and any relevant comments.

Summary checklist

The summary checklist could be used to record the assessment decisions from the assessment checklists on a single form.

Assessment plan

Problem Solving (SCQF level 3)

Candidate: _____

Task to be assessed: _____

Proposed date of assessment: _____

Proposed method of assessment	Tick	Notes
Assignment or project		
Observed performance		
Witness testimony		
Written questions		
Oral questioning		
Product evaluation, eg written document		
Previous evidence		
Other evidence		

Details agreed and signed by:

Assessor _____

Candidate _____

Line manager (if required) _____

Date _____

Record sheet

Problem Solving (SCQF level 3)

Task 1: Investigating

Candidate name: _____

Date: _____

Task 1: Investigating why a problem, situation or issue has arisen

What is the problem, situation or issue?

What are the main factors affecting the problem? For example, what are the causes of the problem, why has the problem arisen, and who is involved?

What can you do to deal with the problem?

Who will you need to help you with this?

Assessor's comments

Record sheet

Problem Solving (SCQF level 3)

Task 2: Planning and solving

Candidate name: _____

Date: _____

Task 2: Work out an action plan to deal with the problem and carry it out

Use the columns below to help you make a plan to deal with the problem. You should show what tasks need to be done, the order in which they should be carried out in, and who needs to carry out each task; this could be you or someone else. You should identify any limitations to your plan, such as time or cost, and also any resources you will need.

When your plan is complete, check with your assessor before putting the plan into action. Keep a record of what you do and when you do it as you complete the different tasks.

What needs to be done and in what order?	Who will do the tasks?	What resources are needed?	Any limitations, such as time or cost	Task completed and time taken

Assessor's comments

Record sheet

Problem Solving (SCQF level 3)

Task 3: Checking and evaluating

Candidate name: _____

Date: _____

Task 3: Decide how well your approach to the problem-solving activity worked in practice

Now you have completed your action plan, use the criteria given by your assessor to decide whether the reasons you identified for the problem occurring were correct. Was your suggested solution a good one? What parts of your action plan worked well? Were there any parts that didn't work quite as well? Use the columns below to keep a record of your review and evaluation.

Evaluation criteria	Stages of the plan	Strengths	Weaknesses

Record sheet

Problem Solving (SCQF level 3)

Task 3: Checking and
evaluating

Candidate name: _____

Date: _____

Task 3: continued

Look at what you have recorded in your review and evaluation, and describe how effective each stage of your problem-solving strategy was.

Based on the findings from your review and evaluation, describe anything you would do differently when dealing with similar situations in future.

Assessor's comments

Assessment checklist

Problem Solving (SCQF level 3)

Task 1: Investigating

Candidate name: _____

Date: _____

Task 1: Investigate reasons why a simple problem related to your work has arisen.

	Evidence	Assessor initials and date	Comments
Recognised the main reasons for the problem, situation, or issue			
Suggested a way to deal the problem, situation, or issue			

Assessment checklist

Problem Solving (SCQF level 3)

Task 2: Planning and solving

Candidate name: _____

Date: _____

Task 2: Plan, organise, and carry out a simple activity to deal with the problem			
	Evidence	Assessor initials and date	Comments
Worked out an action plan to deal with the problem, situation, or issue			
Chose and got the resources needed to carry out the action plan			
Carried out the action plan			

Assessment checklist

Problem Solving (SCQF level 3)

Task 3: Checking and
evaluating

Candidate name: _____

Date: _____

Task 3: Check how well your approach to the problem-solving activity worked in practice			
	Evidence	Assessor initials and date	Comments
Used given criteria to identify the strengths and weaknesses of the problem-solving approach			
Considered the results of the evaluation and suggested ways of approaching solving problems in future			

Summary checklist

Problem Solving (SCQF level 3)

Candidate name: _____

Candidate number: _____

Centre: _____

Task	Date achieved
1 Critical thinking (investigating)	
2 Planning and organising (planning and solving)	
3 Reviewing and evaluating (checking and evaluating)	
Assessor's signature: _____	Date: _____

ADMINISTRATION INFORMATION

Credit Value

6 SCQF credit points at SCQF level 3



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