



# Skillmax Resource Guide

## PSYCHOMETRIC TESTING





# Contents

Welcome to Unit 9	4
Introduction to psychometric testing	5
Activity 1	5
Why do employers use psychometric testing?	7
Activity 2	7
Psychological assessment techniques	8
What you CAN do – ability and aptitude tests	9
Verbal reasoning	9
Numerical reasoning	10
Abstract/inductive reasoning	11
Computer skills testing	12
Activity 3	13
Activity 4	13
What you WANT to do – interest and motivation questionnaires	14
Activity 5	15
HOW you do things – personality questionnaires	16
Activity 6	18
Answers	19

## Welcome to Unit 9

More and more employers are including assessment techniques to assist them in finding the best person for the job. Unit 9 provides an overview of the many assessment techniques that you could experience as part of your job application process.

Knowledge about the many assessment techniques that can be involved will help you in preparing yourself to take part in the job application process.

### Assessment

There is no formal assessment in Unit 9.

# Introduction to psychometric testing

While most jobs you apply for will involve an interview, more and more employers are including other assessment techniques to assist them in finding the best person for the job. The diagram below provides an overview of the many assessment techniques that you could experience as part of your job application process.

Knowledge about the many assessment techniques that can be involved will help you in preparing yourself to take part in the job application process.

## Learning aims

In this module you will learn about:

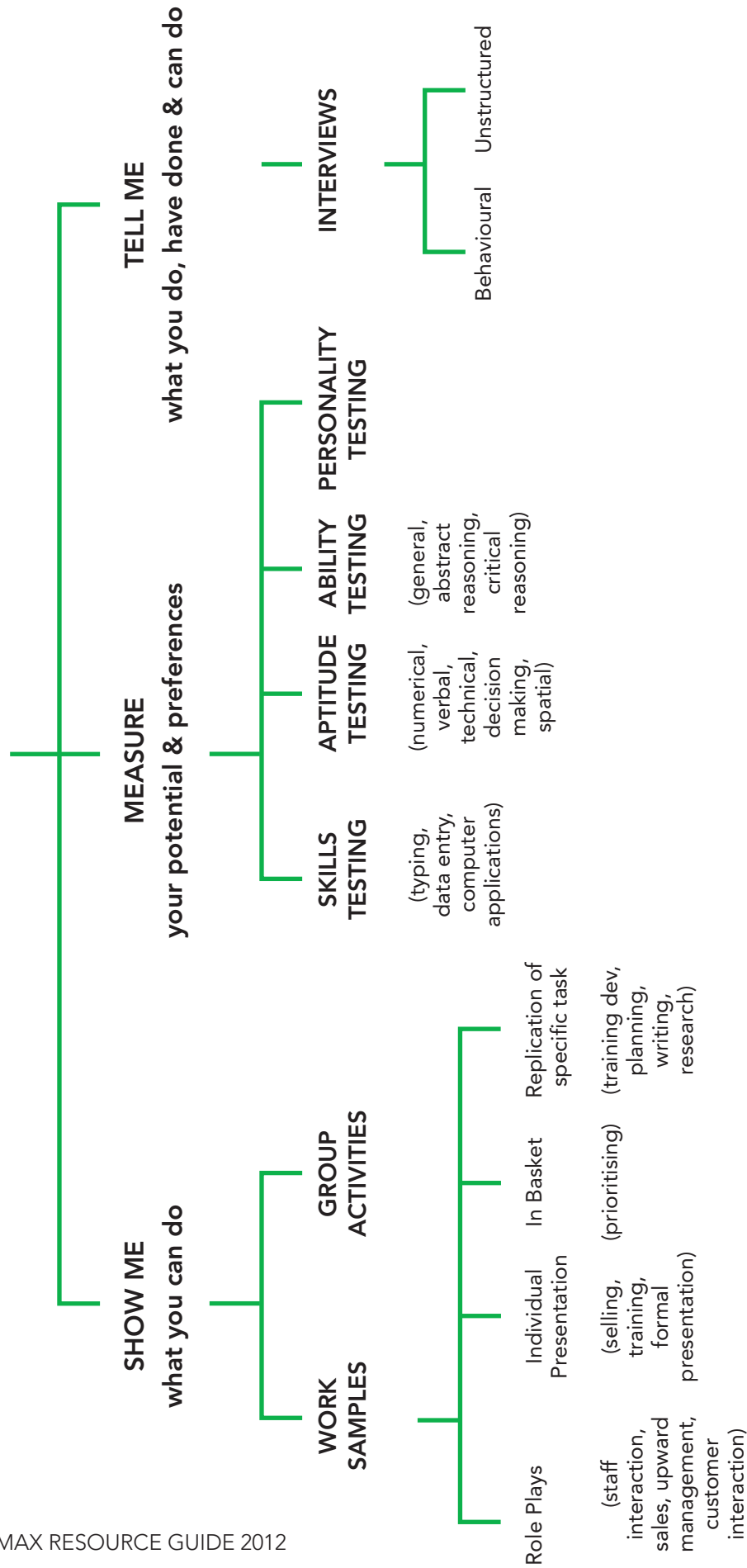
1. the different assessment techniques that may be part of the job application process.
2. what employers are looking for in psychometric testing results.
3. the purpose of personality questionnaires, ability tests and motivation questionnaires.
4. basic principles in completing personality questionnaires, ability tests and motivation questionnaires.

## Activity 1

In small groups, discuss the various assessment techniques in the diagram.


- Which of them have you heard of before?
- Which of these techniques are used in your country of origin?
- Which of the assessment techniques have you experienced before?

## ASSESSMENT TECHNIQUES



# Why do employers use psychometric testing?

As you learnt in the module on interviewing, employers often describe jobs in terms of competencies, ie those behaviours identified as being important for success on the job. In addition to competencies, there are several dimensions that help to determine how well suited you are to a job. These are:



**Knowledge/Skills/  
Experience –  
CAN you do the job?**

**Motivation –  
Why do you WANT  
to do the job?**

**Personal  
Characteristics –  
HOW would you like to  
do the job?**

While a job interview can certainly provide employers with some of the information, other assessment techniques are becoming more commonly used by employers to assist them in deciding your suitability for the job.

## Activity 2

In pairs, with another student from a similar background and experience to yourself, find an advertisement for a job you would like to apply for. Discuss and write down your answers to the following questions:

1. What knowledge, skills and experience do you have that indicate you CAN do the job?
2. Why do you WANT to do the job? What do you think you would enjoy about the job. What do you think would be similar about this job that you have enjoyed in other jobs? What sorts of things motivate you at work and make you want to do well?
3. HOW do you think you would do the job? What do you know about your personality that would influence the way you approach the tasks involved? What do you know about your personality that would influence the way you interact with others? What do you know about your personality that would influence the way you manage stress or pressure on the job?

## Psychological assessment techniques

Psychological testing involves taking a sample of a person's behaviour in order to predict future behaviour. Unlike qualifications and academic results which test what you have learned in the past, psychological assessments test your potential to learn, your patterns of behaviour, your problem-solving style and your interest in particular activities to see how you are most likely to behave in a particular environment.

The information gathered from a psychological test is always interpreted with consideration given to other information the employer has gathered about you (such as that from your résumé, interview or reference checks). This means that even if you don't think you performed well on a test, you could still be successful in getting the job, as you might have done well in the interview and your résumé and reference checks indicate you would be well suited to the job.

There are thousands of psychological tests but there are 3 main categories which reflect the 3 areas of job performance you considered in Activity 2:

### **What a person CAN do:**

Ability or aptitude tests, which look at various skills required for the job

### **What a person WANTS to do**

Interest inventories or motivation questionnaires, which look at the sort of activities you enjoy doing, or expect to enjoy

### **HOW a person does things**

Personality questionnaires, which assess your style or tendency to behave in certain ways



# What you CAN do – ability and aptitude tests

While there are thousands of ability tests available, some of the more common ones are:

### VERBAL REASONING

These tests measure your capacity to use language for problem solving and communication. Of course socio-economic and cultural factors will often influence a person's score on these tests and should be taken into account when results are interpreted. A time limit would be given, in which you need to answer all the questions. Below is a typical example question you may be asked in a verbal-reasoning assessment.

#### Example question – verbal reasoning:

Read the paragraph below and, based on the information provided, decide whether the statement (under Question 3) is true or false, or whether there is not enough information to judge.

**ExampleTimeable Player - Microsoft Internet Explorer**

help Test Progress

**Question 3:**

Investment in public relations is not expected to produce a financial return.

☐ True

☐ False

☐ Cannot say

The slogan, "leadership through quality", has been adopted for our current public relations campaign in an attempt to upgrade our image. This reflects the emphasis this company has always placed on quality. The campaign aims to express outwardly our interpretation of quality as technical excellence, breadth of product range, customer service and value for money. We are convinced that the investment involved will result in increased profits.

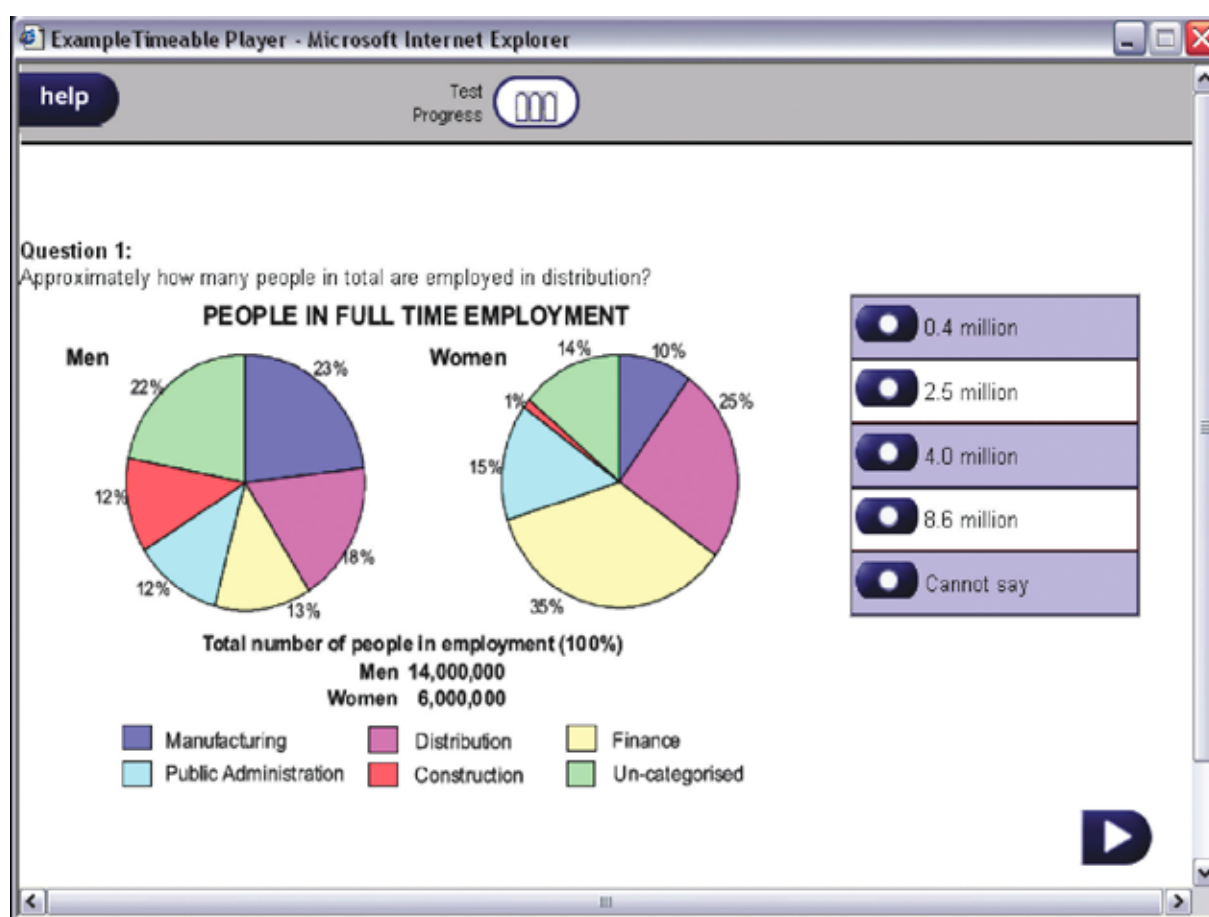
Select **TRUE** if the statement must be true based on the information in the passage.  
Select **FALSE** if the statement is definitely false given the information in the passage.  
Select **CANNOT SAY** if you cannot say whether the statement is true or false without further information.  
Base your answers **only** on the information given in the passage.

## NUMERICAL REASONING

Numerical-reasoning tests measure your ability to think in terms of numbers and solve problems related to numerical information. Again, some of the questions in these tests can be given in written form, so cultural and language factors can again impact on a person's results and should be taken into account during interpretation. Depending on the job you are applying for, the questions can range from simple arithmetic questions to complex numerical problems. You will be given a time limit in which to complete these tests. Below is a typical example question you may be asked in a numerical-reasoning assessment.

### Example question – numerical reasoning:

Based on the information provided, answer the question below. (You may use a calculator).



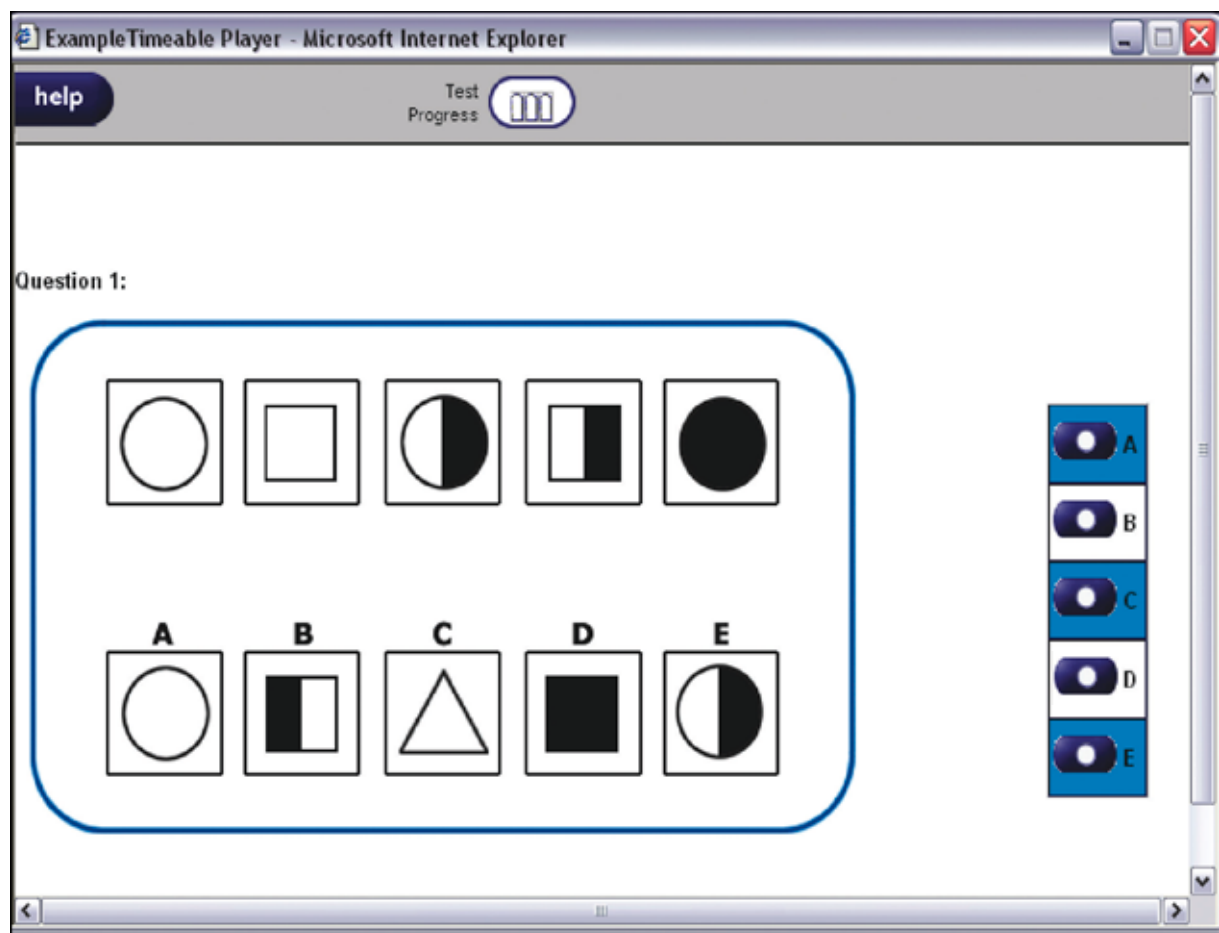
## UNIT 9: PSYCHOMETRIC TESTING

### ABSTRACT/INDUCTIVE REASONING

Performance on these tests measures your problem-solving ability and your potential to learn new skills. The questions in these tests are presented as diagrams, with very little language content and therefore do not unfairly disadvantage people whose first language is not English. These tests will have a time limit. Below is a typical example question you may be asked in an abstract/inductive-reasoning assessment.

#### Example question – abstract/inductive reasoning:

The diagrams in the top row follow a logical sequence. You are to choose the next diagram in the series, from the options A – E below.



While the above tests may be relevant to most jobs, there are many tests which have been designed to measure skills more specific to different jobs. These include:

**Mechanical reasoning** – these tests measure your understanding of basic mechanical and engineering principles relevant at work. For example, you may be presented with a picture of pulleys and levers and your task will be to decide what would happen if a particular lever was pulled.

**Verbal usage** – these tests measure word skills important in a work environment. This could involve spelling, grammar and choice of words. For example, you may be presented with a sentence with two words missing. Your task is to choose the correct pair of words to complete the sentence.

**Checking** – these tests measure your speed and accuracy in checking written information. You may be presented with two paragraphs of written information; one of which is meant to be a copy of the other. Your task is to identify the differences between the two paragraphs and you will be given a time limit in which to do this.

**Following instructions** – these tests measure your ability to follow written instructions. The topics covered are relevant to a technical environment and draw on the kind of information often included in equipment manuals or operating instructions.

## COMPUTER SKILLS TESTING

Your job application process may also include skills testing on a computer. These tests may include:

- Typing speed and accuracy, where you will be asked to copy a written document by typing it into the computer. The test will be timed (often 5 minutes) and your results will indicate how many errors you typed during the time limit, and will give a measurement of your typing speed.
- Data entry speed and accuracy. These tests are similar to the typing test, although you will be asked to enter numerical information.
- Word, Excel or PowerPoint. You may also be asked to complete a test to measure your knowledge of certain computer programs that you will be using on the job. These tests ask you to complete certain tasks in a specified computer program. Again, there will be a time limit given, in which you need to complete the set tasks.

If you are not happy with your results on these computer tests and have completed them at a recruitment company, you may be given the opportunity to do more practice before doing the test again. If you would like to do this, you should always ask the recruitment consultant.

## Activity 3

- a In pairs, work through the example questions provided for the ability tests above. Have your partner time how long it takes you to find the answer.
- b Discuss as a group, how best to approach a test that measures both your speed and accuracy at the same time.
- c If you would like further practice, go to [www.shl.com](http://www.shl.com) and click on practice tests (right-hand button at the top of the screen). You can view other examples and complete various psychometric assessments online and be provided with feedback on your results.

## Activity 4

One of the most important things to remember when given a test is to read and understand the instructions. Practise your ability to follow instructions by doing the following:

Name: \_\_\_\_\_

1. Read everything before you start.
2. Put your name in the upper right hand corner of this page.
3. Circle the word name in sentence two.
4. Draw two squares in the upper left hand corner of this page.
5. Put an X in both squares.
6. Put a circle around sentence 7.
7. On the top of this page, multiply 13x6.
8. On the side of this paper, add 895 plus 972.
9. Underline all even numbers on the side of this page.
10. Now that you have finished reading everything carefully, do only questions one and two.

As a group, discuss what you have learnt from doing this activity.

## What you WANT to do – interest and motivation questionnaires

Employers recognise that your interest or motivation for certain tasks influences your job performance. If you have no real interest in a particular job, you are likely to find it more difficult to do the job, or be successful in it, or continue doing it for a length of time. For this reason, employers may want to understand the types of activities you enjoy doing, and those that you gain most personal satisfaction from.

One of the more common motivational questionnaires is the Motivation Questionnaire, or MQ. This questionnaire is designed to measure the motivational factors that affect your performance at work. The results indicate the things you are likely to find motivating and demotivating at work. An example question from the MQ is presented below: your task is to read the 4 statements and select the one that is most like you and the one that is least like you.

### Example question – motivation questionnaire:

The screenshot shows a web browser window titled "Instrument - Microsoft Internet Explorer". The address bar displays a URL from shlsolutions.com. The page header includes navigation links: Tasks, Reports, Project History, Project Maintenance, Users, Jobs, and Logout. The main content area is titled "Assessment of Sam Hickey" and displays four statements for evaluation:

- The need to be constantly on the go in the job
- Having to justify my work in terms of profits
- Not feeling stimulated by the tasks I do
- Having a job that challenges my abilities

Each statement is followed by a horizontal bar with five dots, representing a Likert scale from 1 (least like me) to 5 (most like me). The first bar is partially filled, indicating a selection. Navigation buttons include "Previous", "Next", and "Help". A "Leave Instrument" link is visible in the top right. The footer contains a "Legal Notice" and copyright information: "©2003 SHL Group plc. All rights reserved."

# Activity 5

In small groups, discuss and write down, the things you find motivating and demotivating at work. Some of the factors measured in the MQ that you should consider in this activity include:

- the level of activity, or how busy you like to be
- the amount of contact or interaction you like to have with other people
- how much authority or power you like to have
- how much you like to be rewarded and recognised for your achievements
- how much opportunity you like to have to learn on the job
- how much you enjoy competing with others

[illegible]



## HOW you do things – personality questionnaires

Personality questionnaires measure your behavioural style, or how you like to work. These questionnaires aren't about your skills or abilities and there are no right or wrong answers. The results provide information on how you see yourself in terms of your personality, eg the way you relate to other people, and your feelings and emotions. While there are no right or wrong answers, some styles may be more or less appropriate in different situations, and employers use this information to understand how to get the best out of you when you are in the job.

One of the most common personality questionnaires used in the selection process is the Occupational Personality Questionnaire, or OPQ. This questionnaire is designed to provide information on your styles and preferences at work. Below is an example question from the OPQ and an example of what the results might look like from this questionnaire.

The screenshot displays the SHL Complete Instrument web application in a Microsoft Internet Explorer browser window. The address bar shows a URL from shlsolutions.com. The page features a navigation bar with links for Tasks, Reports, Project History, and Logout. The main content area is titled "Assessment of September Sample" and asks the user to "Choose which of these statements is most like you, and which is least like you".

	Least	Most
I like helping people	<input type="radio"/>	<input type="radio"/>
I enjoy competitive activities	<input type="radio"/>	<input type="radio"/>
I view things positively	<input type="radio"/>	<input type="radio"/>
I like to follow procedures	<input type="radio"/>	<input type="radio"/>

Below the table is a "Help" link. To the right, there is a "Next" button and a "Leave Instrument" link. The page is identified as "Page 5 of 108". The footer includes a "Legal Notice" link and a copyright notice for SHL Group plc. The Windows taskbar at the bottom shows the Start button and several open applications, including Outlook and Microsoft PowerPoint.





Personality questionnaires have also been designed to specifically measure a person's style in relation to job-specific competencies. For example, the Customer Contact Styles Questionnaire, or CCSQ, focuses on the behaviours that are most relevant to customer-service-oriented jobs.

In addition to personality questionnaires, an employer might also gain an understanding of HOW you do things, by observing you doing key parts of a job. For example, you may be asked to do a role play or a simulation exercise, where you will be asked to take on the role of someone doing the job you are applying for. Role plays are particularly useful for employers to understand a person's potential to do the job. For example, if you have never been a manager before, you may have difficulty answering interview questions on management competencies. However, if given the chance to act as a manager in a role play, and by observing you in the role play, an employer is able to see HOW you would go about managing people.

The tasks and skills assessed during simulation exercises vary, although common ones include:

**customer service** – in these exercises, an employer would be looking for how you interact with potential customers, how you might solve a customer complaint or how you provide relevant information in response to a customer enquiry

**sales** – sales role plays allow an employer to observe how you might identify a customer's needs, present the features and benefits of a particular product or service, how you overcome objections and how you close a sale

**coaching and people management** – in these role plays, an employer might be looking to see how you discuss performance issues with an employee, and how you go about improving a team member's performance

**group exercises** – in these simulation exercises, you could be asked to solve a particular problem as part of a group. The employer could be looking to see how you cooperate with others, how much you encourage other people's ideas, whether you listen to other people's input and how, as a group, you solve the particular problem.

## Activity 6

- a Divide into 3 groups. Each group can then discuss what you could do to ensure you perform at your best during psychometric assessments:

Group 1: ability tests

Group 2: motivation questionnaires

Group 3: personality questionnaires and simulation exercises.

- b Check your group's answers with those at the end of this module, before presenting to the rest of the class.

# Answers

### EXAMPLE QUESTIONS

Verbal reasoning: false

Numerical reasoning: 4 million

Abstract/inductive reasoning: D

### ACTIVITY 6

Answers and ideas will vary, but these ideas may be useful:

#### Ability tests

Practise:

- reading the newspaper can help you practise taking in written information
- doing crosswords can help your verbal reasoning ability
- doing number puzzles can help your numerical reasoning
- before doing a numerical ability test, practise using a calculator
- remind yourself how to do basic numerical calculations such as percentages

#### Motivation questionnaires

- think about the jobs you have enjoyed most – what did you enjoy about them?
- think about the managers you have had in the past – what sorts of managers made you want to do your best?
- think about the type of environment you enjoy working in – is it busy and noisy, or do you prefer quiet and calm environments?
- don't make assumptions about the way you should respond. If you try and guess what the employers are looking for, you may be wrong. It is usually best to be yourself and respond honestly. Remember it's not in your best interests to get a job that you aren't well suited to

#### Personality questionnaires

- think about how you work in a group – be aware of how loud and fast you speak, how much eye contact you have with others and how often you ask for others' opinions
- don't make assumptions about the way you should respond. If you try and guess what the employers are looking for, you may be wrong. It is usually best to be yourself and respond honestly. Remember it's not in your best interests to get a job that you aren't well suited to

#### Overall

- stay calm, make sure all practical arrangements are clear so you don't arrive feeling flustered or unprepared
- if you feel nervous, try breathing deeply to help yourself calm down
- make sure you bring with you anything you might need such as reading glasses. You may also want to bring a watch to help keep track of the time during timed tests
- listen carefully to the instructions, and ask if you are unsure about what you need to do. Employers will be looking for how well you perform in the test, rather than how well you understand the instructions
- ask for feedback at the end of the assessment. Most employers should be willing to provide you with feedback and, even if you aren't successful in getting the job, you can use this to help you perform even better next time.