

Unit Title:	Research techniques in design
OCR unit number	2
Level:	2
Credit value:	3
Guided learning hours:	24
Unit reference number:	J/503/5853

Unit purpose and aim

This unit encourages learners to develop their research techniques. They will be expected to investigate and research a variety of different sources including interviews, literature, manuals, product catalogues, the internet and e-mail. The research will be used to inform design ideas support the technology involved with design development, identify key manufacturing processes, identify target markets and clients for their products.

This unit will also develop the learners' awareness of the world around them, increasing their knowledge of the current market place and existing products. The learners' will develop an ability to source the answers to questions using their own initiative – a key tool for today's dynamic designers.

Learning Outcomes	Assessment Criteria	Teaching Content
<p>The Learner will:</p> <p>1 Understand the importance of research within product design</p>	<p>The Learner can:</p> <p>1.1 Explain the benefits of conducting research</p> <p>1.2 Explain the potential consequences of inadequate research</p>	<ul style="list-style-type: none"> • Research to include: <ul style="list-style-type: none"> ○ product viability ○ size and nature of target market ○ new technologies ○ materials ○ manufacturing methods ○ product need • Consequences of poor research could include: <ul style="list-style-type: none"> ○ lack of understanding of product position. ○ poor understanding of market need ○ development of a product that already exists ○ poor knowledge of available manufacturing processes

Learning Outcomes	Assessment Criteria	Teaching Content
		<ul style="list-style-type: none"> ○ possibility of increased costs. ○ poor manufacturability ● Methods of presentation for research plan ● Referencing source material
<p>2 Be able to conduct secondary research to assist design development</p>	<p>2.1 Assess the reliability of secondary research sources</p> <p>2.2 Gather multiple pieces of information to support secondary research</p> <p>2.3 Draw conclusion based on secondary research</p>	<ul style="list-style-type: none"> ● Range of secondary research sources should include: <ul style="list-style-type: none"> ○ online ○ product catalogue ○ literature ● Conclusions based on research can include: <ul style="list-style-type: none"> ○ material ○ cost ○ manufacturing ○ target market ○ technology ○ product features ● Reliability of sources should include: <ul style="list-style-type: none"> ○ internet sources. ○ literature ○ journals and product catalogues
<p>3 Be able to conduct primary research to assist design development</p>	<p>3.1 Identify a suitable method of primary research</p> <p>3.2 Construct questions to support the purpose of research</p> <p>3.3 Interpret the results of primary research</p>	<ul style="list-style-type: none"> ● Primary research can include: <ul style="list-style-type: none"> ○ existing products ○ survey ○ questionnaire ○ discussion group ○ e-mail ○ telephone ○ interviews ● Type of questions: <ul style="list-style-type: none"> ○ open ○ closed ○ multiple choice

Learning Outcomes	Assessment Criteria	Teaching Content
		<ul style="list-style-type: none"> ○ discussion topics ○ written formats e.g e-mail or letter ● Relevant format for information: <ul style="list-style-type: none"> ○ Tally charts ○ Graphs
4 Be able to present research findings	4.1 Select a method of presentation that suits the target audience 4.2 Communicate the results of your research 4.3 Reference the sources of information gathered.	<ul style="list-style-type: none"> ● Method of presentation presentation boards posters PowerPoint

Assessment

This unit is centre assessed and externally verified. In order to achieve the unit you must produce a portfolio of evidence which, on request, will need to be made available to the OCR external verifier. Portfolios of work must be produced independently and centres must confirm to OCR that the evidence is authentic.

Evidence requirements

Learners should produce a detailed presentation of the findings of their research. Learners should research into a wide range of areas that support the development of a design brief. This should include:

- existing products and competitors
- costings
- materials
- target markets
- new technologies and
- aesthetics.

Alongside their secondary research learners should generate questionnaires, surveys or interviews as primary research to gain first hand feedback on product viability. The final presentation should include:

- graphs
- data
- graphical imagery
- written information presented as presentation boards, posters or PowerPoint supported by verbal commentary.

Any commentary must be confirmed by the centre assessor's Witness Statement.

Guidance on assessment and evidence requirements

Learners should be given opportunities to experiment with multiple forms of presentation techniques including graphical, digital and verbal. Tutors should also ensure that learners undertake valuable primary research with a range of different groups. Where possible this should include employers. Learners should be assisted on the best methods of gathering information plus effective methods of delivering presentations to meet a range of audiences.

National Occupational Standards (NOS) mapping/signposting

NOS can be viewed on the relevant Sector Skills Council's website or the Occupational standards directory at www.ukstandards.co.uk.

Occupational standards	Unit number	Title
Engineering Technical Support suite 2 2007	TS2-19	Assisting in Obtaining Resources for Engineering Activities
Freelancing in the Creative and Cultural Industries	FL7	Conduct research to develop your freelance work in creative and cultural industries
Freelancing in the Creative and Cultural Industries	FL59	Undertake market research for your freelance work in creative and cultural industries
Design	DES1	Apply research on the history and theory of design to your own design activities
Design	DES9	Research, test and apply techniques for the design of products
Design	DES12	Make a presentation
Design	DES15	Research and evaluate the nature of design in a specific industry context
Design	DES20	Research design concept
Design	DES32	Apply concepts and theories of creativity and innovation to your own design work
Design	DES33	Research and evaluate global design trends
Design	DES35	Manage market research for your design business

Functional skills signposting

This section indicates where learners may have an opportunity to develop their functional skills.

Functional Skills Standards					
English		Mathematics		ICT	
Speaking and Listening	✓	Representing		Use ICT systems	✓
Reading	✓	Analysing		Find and select information	✓
Writing	✓	Interpreting		Develop, present and communicate information	✓

Resources

Equipment

For effective delivery of this unit centres should have access to the following resources and equipment.

- Computer system with Internet access, word processing, spread sheet and business presentation software.
- Projector or interactive white board for delivery of presentations.
- Access to a library of resources for research purposes.
- A range of stationary for producing reports and generating evidence.

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 .