L2 Unit 4: Design and produce interactive multimedia products (2010)

Learning outcomes

By completing this unit candidates will develop an understanding of the range of features and techniques used to make interactive multimedia products effective by evaluating existing products. They will use the knowledge and understanding gained to inform the design and creation of a new interactive multimedia product to meet the requirements of a client brief. Candidates will develop their skills in sourcing appropriate components for an interactive multimedia product. Using their creative skills, they will use a range of tools and techniques in the multimedia software to integrate and embed a range of components to produce an interactive, multimedia product. They will acquire the knowledge, understanding and skills required to test different aspects of interactive multimedia products, evaluating their suitability for purpose and audience.

Candidates must design and create a solution using multimedia software. The use of web authoring software is not appropriate for this unit. A simple mainly linear product created by the candidate will not meet the requirements for this unit.

Candidates will be able to:

- review existing interactive multimedia products
- design an interactive multimedia product
- source and store suitable multimedia elements
- create the interactive multimedia product
- test the interactive multimedia product
- seek feedback and suggest improvements.

It is anticipated that a candidate will require 40 guided learning hours to complete this unit.

Assessment objectives	Knowledge, understanding and skills
1 Review existing interactive multimedia products	**At least 3** different interactive multimedia products should be reviewed eg: • interactive multimedia websites • educational and recreational computer games • online and CD ROM/DVD ROM presentations • commercial advertisements on CD ROM/DVD ROM For each interactive multimedia product reviewed, candidates should: • identify the intended audience • identify the good and not so good features • state the aims of the interactive multimedia product • comment on how the aims are met continued on next page

Assessment objectives	Knowledge, understanding and skills
	• if the aims are not met why not? • suggest possible improvements Identify elements/techniques to use/not use in own product
2 Design an interactive multimedia product	Produce design documentation eg: • define purpose and audience • plan of the product eg site map/plan • house style • navigation system • storyboard • flowchart
3 Source and store suitable multimedia elements	Collect a range of multimedia elements eg: • text • photographs • other graphics including drawings and clipart • video clips • animations • sound • own material(s) Acknowledge source(s)
4 Create the interactive multimedia product	Multimedia product to include eg: • alternative pathways ie user selects own route through the product • range of multimedia elements • hyperlinks eg to websites, pop-ups, return to start • user interaction • multimedia effects eg transitions, hide/show, animations, other
5 Test the interactive multimedia product	Areas to be tested: • pathways through the interactive multimedia product • additional hyperlinks (internal and external) • use of consistent house style • use of different components • interactive elements • suitability for target audience • purpose of interactive multimedia product • ease of use Respond to any issues by making necessary changes.

Assessment objectives	Knowledge, understanding and skills
6 Seek feedback and suggest improvements	Feedback eg: • test users/peer feedback • self-evaluation • questionnaires/checklists • interviews Based on feedback suggest improvements to the product

Assessment

This unit is centre assessed and externally moderated.

In order to achieve this unit, candidates must produce a portfolio of evidence showing that they have met all of the assessment objectives.

Portfolios of work must be produced independently. They will need to be made available, together with witness statements and any other supporting documentation, to the OCR Visiting Moderator when required.

Centres must confirm to OCR that the evidence produced by candidates is authentic. An OCR Centre Authentication Form is provided in the Centre Handbook and includes a declaration for assessors to sign. It is a requirement of the QCA Common Criteria for all Qualifications that proof of authentication is received.

Guidance on assessment and evidence requirements

Candidates may use suitable multimedia software including Matchware Mediator, Macromedia Flash, PowerPoint, or others to create a multi-pathway complex product for AO4. It is unlikely they will fulfil the unit requirements if their finished product consists of fewer than twelve screens.

This unit must not be evidenced by use of a website or simple presentation (eg using PowerPoint). Candidates will need to provide portfolio evidence for this unit using a range of suitable and appropriate techniques. These may include written and typed documentation, printouts, screenshots, video, audio presentation and computer files.

The assessment objectives must be assessed separately. The evidence requirements for some, however, can be linked together. For example, the evidence for Assessment Objective 3 should lead directly to the creation of interactive multimedia product for Assessment Objective 4.

Evidence for Assessment Objective 1 should take the form of a review of existing examples of interactive multimedia products. These reviews should then be used to inform the design and development of the candidate's own interactive multimedia product.

Evidence for Assessment Objective 2 must include: details of the audience the product is intended for, purpose, plan of the product, a house style and navigation system and a storyboard. A flowchart may be included if for example a multimedia quiz is produced, showing the different routes through the quiz. The plan of the product may be as simple as a site plan indicating the number of screens in the products and the links. The house style and navigation system may be

presented graphically to show the layout and format of the screens. The storyboard is more in-depth and should contain details of the elements to be included on each screen.

Evidence for Assessment Objective 3 should indicate the source of text, photographs, drawings, clipart, video, animation, sound and other materials created by the candidate for use in the product. The material collected by the candidate must be appropriate for their interactive multimedia product. Candidates must show some evidence of acknowledging sources.

Evidence for Assessment Objective 4 - candidates may use suitable multimedia software including Matchware Mediator, Macromedia Flash, PowerPoint, or others to create a multi-pathway complex product for AO4. **It is unlikely they will fulfil the unit requirements if their finished product consists of fewer than twelve screens.** Evidence for this AO may be submitted in the form of electronic files and/or could include printouts of each screen, clear enough to show the components used. Annotation may be required to explain how these features work as intended. In such a case, witness statements may be required to confirm the functionality of the product. Where electronic submission is used, the actual functioning of the elements can be assessed directly. For higher grades candidates should aim to use a wide range of multimedia features in their product. All interactive multimedia products must include some user interaction in the form of the user choosing their own pathway through the product. This could take the form of a menu page which shows the different sections of their product and allows users to access these, with branches to different sections of the interactive multimedia product. Another example may be an interactive quiz which may have alternative pathways dependent on the responses of the user.

For the product to be considered to 'work as intended', all elements of the product must be stored by the candidate in the same area. It is not appropriate for candidates to create links, for example to a video that is stored on the internet or the shared area on the centre network.

For Assessment Objective 5 the interactive multimedia product should be tested covering a range of different areas as listed in the KUS. For all grades candidates will test their interactive multimedia product, ensuring that all pathways and other internal hyperlinks work effectively, and any broken or faulty links fixed. For higher grades testing should include most or all areas (as stated in the KUS) of the interactive multimedia product. For Distinction, candidates will explain how their interactive multimedia product meets its intended purpose and is suitable for the identified target audience. Higher level candidates will action changes to solve problems if appropriate showing before and after evidence to exemplify the changes. In cases where candidates carry out testing as they create the interactive multimedia product, some evidence of improvements made during the development will be sufficient to evidence this part of this AO. Candidates should not invent problems simply to show that they are able to correct them. This will not impact on them being able to achieve the higher grades.

For Assessment Objective 6, candidates must seek feedback about their product and based on this feedback and their own evaluation of their interactive multimedia product, they must suggest possible **improvement(s)**. For distinction, candidates will be required to suggest how improvements could be implemented; however, they will not be required to carry out these improvements. NOTE: This AO is to enable candidates to suggest possible improvements whilst AO5 above is to test and fix any issues arising from the testing of the product. This means that any suggested improvement(s) is not necessarily a problem with the product but something that would make the product more effective for the target audience and purpose.

Equipment: A multimedia computer system capable of running a range of different multimedia products, and with suitable software to enable candidates to design, develop, test and improve on their own multimedia product.

Mapping to national occupational standards

The mapping in the table below provides an indication of where evidence might be available for assessment against some of the knowledge and understanding contained in the national occupational standards (NOS). It does not claim to guarantee that evidence will meet the NOS.

Occupational standards	Unit number	Title
IT Users (e-skills UK)	PS2	Presentation software Level 2
IT Users 2009 (e-skills UK)	MM: B	Multimedia software
IT Users 2009 (e-skills UK)	PS:B	Presentation software
Business & Administration NOS	O8NBA217 v2	Presentation software V2 (217)
Community Arts	CA19	Use presentation software
IT Users (e-skills UK)	WP2	Word processing software Level 2
IT Users 2009 (e-skills UK)	WP:B	Word processing software
IT Users 2009 (e-skills UK)	ISF:FS:B	IT software fundamentals
IT Users 2009 (e-skills UK)	IPU: B	Improving productivity using IT
IT Users 2009 (e-skills UK)	ICF: B	FS IT communication fundamentals
IT Practitioners and Professionals (e-skills UK)	ICTTEST	Testing ICT systems Level 2

Signposting to functional skills

✓ The unit contains opportunities for developing 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

This section provides suggestions of suitable resources. The list is neither prescriptive nor exhaustive, and candidates should be encouraged to gather information from a variety of sources.

Some suggested resources are intended for Tutor use. The resources in this section were current at the time of production.

Books

Keith Parry et al	*ICT for OCR National Level 2 Units 4, 22 and 23 Online Teacher's Resource* Payne-Gallway, ISBN: ISBN 9781905292196
Bowman & Jones	*OCR National Level 2 in ICT Student Book with Dynamic Learning CD-ROM* Hodder Arnold. ISBN: 9780340942017, ISBN-10: 0340942010
Thomas Telford Online	*OCR Nationals in ICT* Thomas Telford Online
@tain online curriculum resources	*OCR Nationals in ICT* *@tain at Brooke Weston City Technology College*

Websites

ICT GCSE Interactive Learning http://www.ictgcse.org.uk/
This site provides ICT GCSE's latest news and updates

Project GCSE http://www.projectgcse.co.uk/it/
Provides links to useful practice questions

BITESIZE revision http://www.bbc.co.uk/schools/gcsebitesize/ict/
A secondary revision resource for GCSE exams

Equipment: A multimedia computer system capable of running a range of different multimedia products, and with suitable software to enable candidates to design, develop, test and improve on their own multimedia product.

Grading

Assessment Objective	Pass	Merit	Distinction
AO1 Review existing interactive multimedia products	Candidates list and give an explanation of the good and not so good features of three different interactive multimedia products. Candidates will identify at least one technique/element from their research to use or avoid in their own interactive multimedia product.	Candidates identify the aim of the interactive multimedia product. Candidates give a detailed explanation of the good and not so good features of at least three interactive multimedia products, and suggest possible improvements. Candidates will identify at least one technique/element from their research to use or avoid in their own interactive multimedia product. They explain why they will use/avoid this technique/element in their interactive multimedia product.	Candidates identify the aim and the audience of the interactive multimedia product. Candidates give a thorough explanation of the good and not so good features of at least three interactive multimedia products, and suggest a range of valid improvements to help the product meet its aims. Candidates will identify techniques/elements from their research to use or avoid in their own interactive multimedia product. They explain why they will use/avoid these techniques/elements in their interactive multimedia product.
AO2 Design an interactive multimedia product	Candidates give purpose and audience for the product. A basic plan, house style and navigation system is produced. A simple storyboard covering the main elements is provided. The designs may lack structure.	Candidates give purpose and audience for the product. A detailed plan, house style and navigation system is produced. A storyboard covering the main elements is provided. The designs have a clear structure.	Candidates are thorough in their description of purpose and audience for the product. A detailed plan, appropriate house style and effective navigation system is produced. A storyboard covering all elements is provided. The designs are well structured.

Assessment Objective	Pass	Merit	Distinction
AO3 Source and store suitable multimedia elements.	Candidates will source and store multimedia elements including: text, images and sound. Some acknowledgement of sources given.	Candidates will source and store multimedia elements including: text, images, sound and animation. Acknowledgement of most sources given.	Candidates will source and store multimedia elements including: text, images, sound, video and animation. Accurate acknowledgement of all sources given.
AO4 Create the interactive multimedia product	The interactive multimedia product makes some use of: alternative pathways, hyperlinks and multimedia effects. Some elements may not work as intended. The interactive multimedia product contains: text, images and sound.	The interactive multimedia product makes good use of: alternative pathways, hyperlinks, user interaction and multimedia effects. Most elements work as intended. The interactive multimedia product contains: text, images, sound and animation.	The interactive multimedia product makes effective use of: alternative pathways, hyperlinks, user interaction and multimedia effects. All elements work as intended. The interactive multimedia product contains: text, images, sound, video and animation.
AO5 Test the multimedia product	Candidates will test their multimedia product, ensuring that all pathways and other internal hyperlinks work effectively.	Candidates will test their multimedia product, ensuring that all pathways and other internal hyperlinks work effectively. The tests will cover most of the main areas of their multimedia product (as shown in the KUS) and will be appropriate. If, as a result of the testing, problems are identified candidates will indicate any action that is required to solve the problems.	Candidates will test their multimedia product, ensuring that all pathways and other hyperlinks work effectively. The tests will cover all main areas of their interactive multimedia product (as shown in the KUS) and will all be appropriate. If, as a result of the testing, problems are identified candidates will indicate any action that is required to solve the problems and will carry out any necessary action. For the tests carried out, candidates will provide evidence showing before and after changes where appropriate.

Assessment Objective	Pass	Merit	Distinction
AO6 Seek feedback and suggest improvements	Candidates seek feedback from a test user or through peers. They suggest a possible improvement that could be made to the product.	Candidates seek feedback from a test user or peers and through self-evaluation of their product. They suggest valid improvements that could be made to the product.	Candidates seek a range of feedback from a test user or peers and through detailed self-evaluation of their product. They suggest valid improvements that could be made to the product, providing details on how these could be achieved.