

Support Notes (Issue 1)

September 2015

Certificate in Digital Applications
(DA104) Game Making

Retro

Introduction

Before tackling the Summative Project Brief (SPB), students should have acquired the appropriate ICT skills, knowledge and understanding as specified in the 'What You Need To Learn' sections of the DA104 specification.

The DA104 SPB 0915 is valid for moderation in **June 2016, December 2016, June 2017** and **December 2017**.

Teachers and students should remember that the emphasis of this specification is 'creative computing'. It is therefore vital that students take the chosen or specified audience and purpose into account when designing and creating products.

In order to encourage an independent approach to the SPB, students will need to be taught how to create and use appropriate types of documentation to support and record the planning, design, production and evaluation of their work.

Time

Unit 4, as a whole, is a 90-Guided Learning Hours (GLH) unit. Centres must allow 30 hours for students to complete their Summative Project.

Section 1: Using the SPB

Access and navigation

The SPB is intended to be accessed onscreen.

Although the links in the navigation bar are roughly in sequence, students should be reminded that one task often depends on one or more other tasks and they should make use of the interactive nature of the brief.

Where more than one page relates to a main task, they appear as a submenu from the main link.

The symbol  at the top of each page allows students to print the page.

Section 2: Saving the evidence

What evidence is required?

Students do not need to submit evidence of everything they do during their work on the project. They are asked to create named subfolders to store work for the eportfolio.

The symbol **P** indicates a product to be stored in the PRODUCTS subfolder. For this project the product is a game with user instructions.

The symbol **E** indicates supporting evidence to be saved in the EVIDENCE subfolder. This evidence must include game overview, storyboards, rules table, assets table, test log and review.

Students must ensure that they present their products as clearly as possible, remembering that assessors and moderators will view all evidence onscreen.

Copyright

Students **MUST** comply with copyright. They should consider whether they have fully met this requirement. If not, it is not sufficient to simply acknowledge the sources. They must demonstrate their understanding of copyright issues and what would need to be done to make the products fit for use in the public domain. They must identify each individual asset that is an issue and explain what would need to be done to comply with copyright.

It is generally the case that suitable assets can be obtained from primary or copyright-free sources.

The CiDA/DiDA Moderator's Toolkit

The CiDA/DiDA Moderator's Toolkit specifies the file types that all moderators can view. It is each student's responsibility to ensure that their eportfolio **only** includes files in the listed formats.

The CiDA/DiDA Moderator's Toolkit is published on the Pearson website. It will be updated when necessary.

Files in .exe format will be accepted for the final game for this unit only.

Section 3: Supervision and feedback

Supervision and authentication of student work

With the exception of the research, asset gathering and feedback gathering activities listed below, students are only able to work on the SPB in a lesson, under the informal supervision of a teacher. This means that there must be adequate supervision to ensure that work can be authenticated.

These activities may be carried out away from the classroom:

- researching information and assets
- gathering assets and updating the assets table
- gathering feedback from game testers.

All other work, including any manipulation or development of this material, must be done under supervision in the classroom. Any material brought back into the classroom must be checked by the teacher to ensure that it can be authenticated as the student's own work. At the end of the lesson all of the students' materials, paper-based and electronic, must be collected in, stored securely and handed back at the beginning of the next session.

The role of game testers and game reviewers

Each student will work with a game tester(s) to receive feedback on their game designs and prototype game. Students must be made aware of what is expected of a game tester: they can comment on the '*what*' (what they think is good and what they think could be improved), but they must not feedback on the '*how*' (e.g. how to make changes or specific solutions to any problems).

Game reviewers comment, in the same way, on the final game.

What feedback can students receive, when?

The controlled assessment task for each unit can be divided into three broad stages. The level of feedback and collaboration allowed varies between stages, as outlined below.

Feedback and collaboration at each stage of the project

Stage 1

This stage starts with students being provided with the SPB. Students must work individually to come up with their own game overview.

The teacher may provide feedback on the planned approach, such as highlighting strengths, weaknesses and possible problems with the planned game and approach, but they must not suggest, or direct students towards, specific solutions.

Students may receive feedback on the game overview from their game tester (see *The role of the game testers and game reviewers*) and use this to modify their game overview before seeking approval from the teacher.

Stage 2

Students must work individually to design, build and develop their game.

The teacher may provide feedback at the beginning of this stage on students' designs, such as highlighting strengths, weaknesses and problems with the planned designs, but teachers must not suggest, or direct students towards, specific solutions.

The teacher must not provide feedback on the student's final game, but can suggest general questions for them to consider (which will be useful in the game review), e.g. 'how do you think x looks?', 'how do you think x could be improved?'

Students may receive feedback from their game tester (see *The role of game testers and game reviewers*) on the designs and prototypes and incorporate this into their final game.

Stage 3

Students must work individually to complete the game review.

Before starting their game review, students must seek feedback from their game reviewer on the game (see *The role of game testers and game reviewers*), which will be incorporated into the game review. No other feedback from any source is allowed and they cannot receive feedback on the game review itself.

Section 4: Tackling the SPB

The scenario

This project focuses on creating a classic or retro game for an audience of the student's choice.

Students need to undertake some initial research on classic/retro games of the 1970s/1980s before they undertake the SPB. There are numerous websites on the internet as well as magazines available from high street newsagents.

It is important that students do not try to replicate an original classic/retro game. They should add ideas of their own to make their game different from the original but the game should still have the 'look and feel' of a retro game.

The game must have:

- a title screen
- a minimum of two levels
- winner and loser end screens
- a simple scoring system to inform the player of how well they are doing.

Folders

The SPB requires the creation of a folder called 'DA104SPB' that contains two subfolders called PRODUCTS and EVIDENCE. It is crucial that students store all the required items. The appropriate subfolder is indicated for each item.

The assets table

In producing the game, students will need to gather, develop and prepare a variety of assets. Because the game needs to look retro it is important that students choose their assets carefully.

An assets table is required, in which students give details of all assets they use. Students should be encouraged to add all assets, including those they have created themselves. They should be reminded that search engines such as Google should not be cited as sources. An assets table is not provided, but teachers may use the bulleted list in the SPB to create one that students can use.

The assets table must include a description of each asset and where the student found it. They should identify if they need permission to use it and note whether the source is primary or secondary. The student should identify where the asset is used in the game, e.g. the blue spaceship on level 2.

Students must be encouraged to keep their assets table up to date throughout the project.

Game testers and game reviewers feedback

Students may keep records of the feedback they receive and their response to it. They should take note of what their game tester tells them is good about the work and what could be improved.

Feedback should be sought on designs. Feedback received should be constructive and allow the student to improve their work in terms of quality and fitness for the purpose and target audience.

Students should seek feedback from a game reviewer. This could be a member of the target audience.

Game overview

Before working on detailed designs, students must complete a game overview document to give an outline of their intentions for the game. They should record teacher feedback and action taken.

Students should be clear about their options for genres, game play etc. before they embark on their game overview.

Students must obtain teacher approval before continuing.

Students should be advised at this early stage of the design process if any of their design ideas are not suitable for any reason, including copyright restrictions.

Design

It is essential that students save details of design and development work throughout the project. This information should be stored in the EVIDENCE folder. The aim is to show the development of their game from the overview through prototyping and testing to the finished game.

Students should aim to communicate the entire process using appropriate methods, e.g. flow charts, images. They should illustrate the key parts of the game, such as the opening screen and what instructions will appear to help the user to move through different levels. Storyboards and other design documentation should be detailed enough to allow visualisation of the intended game.

Students should also show how testing, acting on feedback and refining their designs influenced the finished game. Annotated images may be used where appropriate to clarify designs and decisions.

Rules

A simple game may have quite a few rules. Students will need to be careful about the overall number of rules. They need to understand that the more they add, the more there is that needs to be documented and tested. Do they have time? There may be a need for compromise on time versus perfection.

A rules table needs to be constructed before the development of the game begins. Rules copied from the game engine after the completion of the game are not acceptable.

Assets

Students will need to gather a variety of assets for their game. Students should be quite clear about the need to comply with copyright if they use secondary sources. Students need to be aware that many sprite sheets available on 'copyright free' websites are illegal 'rips' from existing games. If these are still subject to copyright they should not be used.

Students should use an assets table as directed in the SPB. A key part of the process is developing and preparing each asset so that it is in a suitable format and size. Therefore, students need to record details of how they change each asset in order to make it suitable, e.g. changing its appearance, animating it. This may be recorded in any format that is suitable, e.g. a word processed document or a presentation. These may be annotated or labelled screenshots to highlight processes used, in order to reduce the need for lengthy descriptions.

Development and testing

Students must only submit the final version of their game so it is essential that they record major development issues in their test log. It is important that they justify steps in development – how each step is intended to improve the game.

It is imperative that students not only record the summative testing at the end of the game but also the formative testing – that is, how they corrected errors themselves as they built the game. It may be helpful to include 'before and after' screenshots to show what they did to fix a bug, e.g. code examples.

Students should think carefully about whom they choose to be game testers. Ideally, the testers need to be part of the target audience, but students need to consider how easily they will be able to show them their game and how often.

Details of all testing, including feedback received and how the student took account of it, should be included in their test log. Students should also acknowledge when a change was suggested but ignored, and give the reason.

Instructions

The game must include clear user instructions. Students are free to choose the format and method of access to these instructions. They could be at the start of the game, in the game (sound, pop-ups, animations, videos, help file, etc), in a printed supplement, or a combination of these.

The instructions should not just be about which keys to press but also about what the player has to do in the game, how to move between levels and how a player can win.

Students should be careful to use appropriate language for the target audience and should ensure that the instructions are thoroughly tested by appropriate game testers.

The final game

The game must be exported into a format that can be viewed with the CiDA/DiDA Moderator's Toolkit (an .exe file is acceptable for this unit). Game authoring software project files are not acceptable.

Students may use any suitable games authoring software. Possible choices include: Gamemaker, RPG Maker, Multimedia Fusion. When making a decision about which software to use, students need to ensure that it will allow them to create a game for the scenario, will allow the use of primary assets and also allow the inclusion of instructions within the game.

The game itself **MUST** be in playable format and may be submitted as an .exe file.

Students should remember that credit is not given for a demonstration of technical skills and/or coding but rather for producing a game that meets the requirements of the brief and is suitable for the target audience and purpose.

Project review

Students should aim to produce a detailed review of the game, avoiding accounts of what they did and how they did it.

Students should comment on the strengths of the game and areas for improvement. They must include feedback from their game reviewer. However, there is no need to document any interim feedback received from their game tester during the development of their game.

Students should conclude their review by making specific and valid suggestions for improvement. These may be their own ideas or come from the game reviewer.

Section 5: - The index page

Students are to provide access to their work via a single index page. Any suitable software may be used to construct the index page but it must be viewable using the file types listed in the CiDA/DiDA Moderator's Toolkit.

Students should ensure that they provide working links to all the specified items of evidence, even when the index page is viewed on a stand-alone machine. If students have access to a stand-alone computer that only has the CiDA/DiDA Moderator's Toolkit installed then they will also be able to check that their work conforms to the technical specification.

The index page should be easily recognisable in the main folder. This should include candidate name and number, centre name and number and SPB name. It is helpful to indicate a preferred screen resolution.

All the required products and supporting evidence are indicated in the SPB. These should be linked to the index page. Additional items should only be added if these are necessary for assessment to be effective. Students are expected to remove redundant and duplicated work before submission.