



Pearson

Support Notes (Issue 1)

September 2017

Certificate in Digital Applications  
(DA104) Game Making

**Superhero**

## Key points for this SPB

- The DA104 SPB 0917 is valid for moderation in June 2018, December 2018, June 2019 and December 2019.
- Unit 4 is a 90-Guided Learning Hours (GLH) unit. Centres must allow 30 hours for students to complete their Summative Project.
- For this SPB the product is a maze game.
- For this SPB the evidence is:
  - a game overview
  - game designs including storyboards and rules table
  - an assets table
  - a test log
  - a game review.
- These support notes should be read in conjunction with the [Chief Examiner's report](#) available on the Pearson website.

## **Introduction**

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

Teachers and students should remember that the emphasis of the 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, students need to be taught how to create and use appropriate types of documentation to support and record the design, production and evaluation of their work.

## **Section 1: Tackling the Superhero SPB**

### **The scenario**

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

Students need to undertake some initial research on maze games before they undertake the SPB. There are numerous websites, as well as magazines, that students can use.

The game must have an original character that the students must design themselves. Evidence of this design is required. It is important that students do not try to replicate an existing maze game or any existing superhero characters such as Superman or Wonder Woman.

The game must have a title screen, a minimum of three levels and winner and loser end screens.

### **The assets table**

An assets table is required in which students give details of all assets they use. Students should 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, however students may use the bulleted list on the Assets page of the SPB to create a template.

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 students should identify where the asset is used in the game, for example the London Sewers on level 3.

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

## **Game tester and game reviewer feedback**

Students should 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 game and what could be improved.

Feedback should be sought on designs. Feedback received should be constructive and allow the students to improve their design 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 game play before they embark on their game overview. Students should also be clear on how the game will work and what challenges they might introduce within the levels. It is important for students to show what key presses they will use for left-handed players and right-handed players.

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 subfolder.

The aim is to show the development of their game from the overview through storyboarding, prototyping and testing to the finished game.

Students are not restricted by the list of requirements of the game. It could also include teleporters, lives, weapons, other enemies, etc.

Students should also think about the movement of the monsters within the maze. Will they home in on the player, or move randomly? They might follow a simple pattern.

Students should aim to communicate the entire development process using appropriate methods, for example 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 decisions.

Storyboards for maze games may need to be changed as a result of feedback.

## **Assets**

Students in this SPB are required to create their own playable character and also the monsters within the game. Downloaded assets or sprites contained within editing software should not be used. Evidence of the design of the superhero and monsters must be clearly recorded. Other enemies could also be created.

A key part of the development process is 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, for example changing its size so it's able to fit between the walls of the maze, animating it so it walks. This may be recorded in any format that is suitable, for example 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.

## **Rules**

A rules table needs to be constructed before the development of the game. Students should not retrospectively copy rules from the game engine after the completion of the game.

## **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.

Game testers need to play the levels of the game to make sure it's fun to play and sufficiently challenging.

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 as they built the game. It would be helpful to include 'before and after' screenshots to show what they did to fix a bug, for example code examples.

Details of all testing, including feedback received and how the students took account of it, should be included in their test log. Students should also acknowledge when a change was suggested but not implemented, 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 finished game**

The game must be exported into a format that can be viewed with the Digital Applications moderators' toolkit (an .exe file is acceptable for this unit). Game authoring software project files are not acceptable.

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.

### **Game 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 2: Saving the evidence

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 submission.

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

The symbol **E** indicates supporting evidence to be saved in the EVIDENCE subfolder.

Students must ensure that they present their evidence as clearly as possible. For example, scans of hand drawn storyboards must be legible.

### 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 Digital Applications moderators' toolkit

The Digital Applications moderators' toolkit specifies the file types that all moderators can view. It is each student's responsibility to ensure that his/her work **only** includes files in the listed formats.

The Digital Applications moderators' toolkit is published on the Pearson website. It will be updated as necessary.

## Section 3: 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 Digital Applications moderators' 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 standalone computer. If students have access to a standalone computer that only has the Digital Applications moderators' 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.

## **Section 4: Supervision and feedback**

### **Supervision and authentication of student work**

With the exception of the activities listed below, students are only able to work on the SPB in a lesson, under the 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 assets table
- gathering feedback on designs and products 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 student's 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 his/her 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*' (how to make changes or specific solutions to any problems).

Game reviewers comment, in the same way, on the finished 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 proposal.

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

### **Stage 2**

Students must work individually to design, build and develop their products. 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 the teacher must not suggest, or direct students towards, specific solutions.

The teacher must not provide feedback on a student's finished products, but may suggest general questions for him/her to consider (which will be useful in the project review), for example. 'how do you think x looks?', 'how do you think x could be improved?'

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

### **Stage 3**

Students must work individually to complete the project review.

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

## Further support

Centres are reminded of the following additional support available:

- [Ask the Expert](#)
- Subject Adviser  
[TeachingICT@pearson.com](mailto:TeachingICT@pearson.com)  
UK: 020 7010 2161  
Intl: +44 (0)20 7010 2161
- [Chief examiner's report](#)
- [Training from Pearson](#)

