**Phil Feain** - Hello and welcome to the VCE Data Analytics Unit 3 School-based Assessment on-demand video for the Unit 3 Outcome 1 SAC for 2022. The purpose of Video 3 is to support teachers with understanding how to plan the Unit 3 Outcome 1 SAC task for Data Analytics. My name is Phil Feain and I am the Curriculum Manager for Digital Technologies with the VCAA.

The purpose of this session is: to build the capacity of teachers to develop compliant, rigorous and engaging VCE assessment tasks in line with the VCE assessment principles and to provide an overview of how to plan for the Unit 3 Outcome 1 School-assessed Coursework task. This presentation will cover the: Unit 3 Outcome 1 statement, Key knowledge, Key skills, The assessment task statement, a range of useful VCAA resources, including: Task development template - blank and the Task development template - plan.

Over the next few slides we'll go through Unit 3 Outcome 1. Looking at the outcome statement: On completion of this unit the student should be able to respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply range of functions to develop software solutions to present findings. You need to ensure the SAC task meets this.

There were many issues with Unit 3 Outcome 1 last year where the task did not even meet with the outcome statement. Here's the key knowledge. The scenario for the assessment task should reference the key knowledge. And here are the key skills. You develop your assessment task to enable students to meet these. You want your students to be able to: interpret solution requirements and designs to develop data visualisations, identify, select and extract relevant data from large repositories, use a standard referencing system to acknowledge intellectual property, organise, manipulate and cleanse data using database and spreadsheet software, select, justify and apply functions, formats and conventions to create effective data visualisations and develop and apply suitable validation and testing techniques to software tools used.

Next is the assessment task itself. In response to teacher-provided solution requirements and designs, create software solutions. The total marks allocated must be out of 100 marks. Over the remaining slides we will look at planning the Unit 3 Outcome 1 SAC task. This slide shows six useful VCAA resources that will help you with planning the assessment task. On the left we have the Applied Computing Study Design that includes the Data Analytics Unit 3 Outcome 1. Then we have the Advice for teachers with Sample approaches to develop an assessment task and the Unit 3 Outcome 1 Performance descriptors. This is followed by three resources on the study page: the Unit 3 Outcome 1 SAC template, the Unit 3 Outcome 1 Assessment task development template - blank and the Unit 3 Outcome 1 Assessment task development template - plan.

This slide shows a resource that I put together of a template showing how the key knowledge, key skills and performance descriptors link together. The purpose of this resource is for you to put down your ideas or notes in the blank space, linking back to the performance descriptors, key skills and key knowledge. You could use this resource to help you to plan for the assessment task. This can be downloaded from the Data Analytics study page. I'll go through this in detail over the next few slides. The first part of the document links the following four key knowledge bullet points to the key skill of - interpret solution requirements and designs to develop data visualisations. These link to the performance descriptor

All solution requirements and designs are interpreted accurately in developing the database, spreadsheet and data visualisation solutions. When planning to meet this key skill or performance descriptor, these are the four key knowledge bullet points that need to be addressed. In the assessment task students are interpreting the teacher-provided solution requirements and designs to develop their solution. The next part of the document links the following five key knowledge bullet points to the key skills of - identify, select and extract relevant data from large repositories and - use a standard referencing system to acknowledge the intellectual property. These link to the performance descriptor

All relevant data is identified, selected and extracted from appropriate data repositories and referenced to acknowledge intellectual property. When planning to meet these key skills or performance descriptor these are the five key knowledge bullet points that need to be addressed. In the assessment task students need to identify, select and extract the relevant data from the repository stated and use the APA referencing system. The next part of the document links the following five key knowledge bullet points to the key skill of - organise, manipulate, and cleanse data using database and spreadsheet software. These link to the two performance descriptors

Comprehensive use of features of the database software tool used to store, manipulate and validate data and - Comprehensive use of features of the spreadsheet software tool have been used to manipulate and validate data. When planning to meet this key skill or performance descriptors, these are the five key knowledge bullet points that need to be addressed. In the assessment task students need to use both the database and spreadsheet software tool to store, manipulate and validate data. The next part of the document links the following two key knowledge bullet points to the key skill of - select, justify and apply functions, formats and conventions to create effective data visualisations. These link to the two performance descriptors

Comprehensive use of functions, formats and conventions to create effective data visualisations and - Comprehensive justification and explanation of how the selected functions, formats and conventions are used to create effective data visualisations. When planning to meet this key skill or performance descriptors, these are the two key knowledge bullet points that need to be addressed. In the assessment task students need to create a data visualisation, using data visualisation software and write a justification and explanation regarding how these selected functions, formats and conventions were used to create it. The final part of the document links the following key knowledge bullet point to the key skill of - develop and apply suitable validation and testing techniques to software tools used. This links to the performance descriptor

Comprehensive range of test data expressed in testing tables with both expected and actual output stated. When planning to meet this key skill or performance descriptor, this is the key knowledge bullet point that needs to be addressed. In the assessment task students need to set up a testing table, show range of test data and include the headings for the columns of expected output and actual output.

This slide shows a resource that I've put together of a template showing how the key knowledge, key skills and performance descriptors link together with an explanation of how to create the assessment task on the right. The purpose of this resource is to assist teachers with planning the assessment task to ensure it links back to the performance descriptors, key skills and key knowledge. You could use this resource to help you to write the assessment task. This can be downloaded from the Data Analytics study page. I'll go through this in detail over the next few slides.

This slide is about planning the case study or the scenario for the assessment task. Create a scenario that is a real-world example that provides students with solution requirements and designs that will enable them to extract authentic data from large repositories, manipulate and cleanse the data and develop software solutions using spreadsheet, database and data visualisation software tools to present findings. The outcome may be completed as four tasks: data collection, spreadsheet solution, database solution and data visualisation solution.

Key knowledge within the tasks should be based on the targeted key knowledge and key skills. The total number of the marks for the outcome should be out of 100. To meet the first key skill the assessment task should be written to include: Content to be included in the assessment task should introduce students to a scenario. The scenario should indicate the data repositories that students are to use. The scenario should clearly state the solution requirements and designs for the spreadsheet, database and data visualisation solutions and provide students with sufficient opportunities to demonstrate their knowledge and to meet the requirements of the outcome. A range of appropriate design tools should be used. Students are not to complete designs themselves. Design tools should be appropriate for the software tool used.

To meet the following two key skills the assessment tasks should be written to include: Students are to identify, select and extract the relevant data from the repositories listed in the scenario and use the APA referencing system to acknowledge the intellectual property used within the data visualisations.

To meet the following key skill the assessment tasks should be written to include: The scenario with the solution requirements and designs should enable students to determine the appropriate selection and use of features for the database software tool and the spreadsheet software tool to enable them to organise, manipulate and cleanse data (Refer to the software tools and functions document on the study page). Students are to use a database software tool and a spreadsheet software tool. Relevant data validation techniques are to be used within the spreadsheet software tool and the database software tool.

To meet the following key skill the assessment tasks should be written to include: The scenario with the solution requirements and designs should enable students to determine the appropriate use of functions, formats, and conventions for the data visualisation tool to enable them to create their data visualisations (Refer to the software tools and functions document on the study page). Students are to use a data visualisation tool. They are to justify and explain their selection of functions, formats and conventions used to develop their data visualisations. This written justification and explanation could be included as a separate written report.

And to meet the final key skill in the assessment task it should be written to include: A testing table is to be developed that involves the testing of all validation and processing such as calculations, etc. The testing table should include columns for expected and actual output and show evidence of tests that work and don't work. In this presentation we covered the: Unit 3 Outcome 1 statement, looked at the Key knowledge, looked at the Key skills, looked at the assessment task, gave an overview of some resources and went into detail about how to use - the Task development template - blank and the Task development template - plan. Thank you for following this presentation.

If you have any questions regarding this presentation you can contact Phil Feain, the Digital Technologies Curriculum Manager at the contact details below. Thank you.

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