



Moderators' report

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KS4 PERFORMANCE TABLES

OCR Level 1/Level 2

Cambridge National in
IT

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For first teaching in 2022 | Version 1

R060-R070 Summer 2024 series

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Introduction

Our Moderators' reports are produced to offer constructive feedback on centres' assessment of moderated work, based on what has been observed by the moderation team. These reports include a general commentary of accuracy of internal assessment judgements, identify good practice in relation to evidence collation and presentation, and comment on the quality of centre assessment decisions against individual Learning Objectives. The report also highlights areas where requirements have been misinterpreted and provides guidance to centre assessors on requirements for accessing higher mark bands. Where appropriate, the report will also signpost other sources of information that centre assessors will find helpful.

OCR completes moderation of centre-assessed work in order to quality assure the internal assessment judgements made by assessors within a centre. Where OCR cannot confirm the centre's marks, we may adjust them in order to align them to the national standard. Any adjustments to centre marks are detailed on the Moderation Adjustments report, which can be downloaded from Interchange when results are issued. Centres should also refer to their individual centre report provided after moderation has been completed. In combination, these centre-specific documents and this overall report should help to support centres' internal assessment and moderation practice for future series.

Online courses

We have created online courses to build your confidence in delivering, marking and administering internal assessment for our qualifications. Courses are available for Cambridge Nationals, GCSE, A Level and Cambridge Technicals (2016).

Cambridge Nationals

All teachers delivering our redeveloped Cambridge Nationals suite from September 2022 are asked to complete the Essentials for the NEA course, which describes how to guide and support your students. You'll receive a certificate which you should retain.

Following this you can also complete a subject-specific Focus on Internal Assessment course for your individual Cambridge Nationals qualification, covering marking and delivery.

Please note, the content for this report is based on candidate work submitted in the June 2024 series. It is possible that not all units are covered within the report, however candidate style work and candidate exemplars from the 2023 series are available for all internally assessed units on Teach Cambridge .

GCSE, A Level and Cambridge Technicals (2016)

We recommend all teachers complete the introductory module Building your Confidence in Internal Assessment, which covers key internal assessment and standardisation principles.

Following this you will find a subject-specific course for your individual qualification, covering marking criteria with examples and commentary, along with interactive marking practice.

Accessing our online courses

You can access all our online courses from our teacher support website [Teach Cambridge](#).

You will find links relevant to your subject under Assessment, NEA/Coursework and then Online Courses from the left hand menu on your Subject page.

If you have any queries, please contact our Customer Support Centre on 01223 553998 or email support@ocr.org.uk.

Unit R060 General overview

This is a mandatory NEA unit for the qualification. Candidates work through an OCR set NEA assignment brief that changes every year. The NEA is valid for the January and May series with the new NEA released at the end of June for candidates to work through for the following January and May series. Centres are reminded that they cannot use for example, the NEA for January and May 2024 for the January/May 2025 series.

Spreadsheet applications are commonly used to create input, processing and output solutions which manipulate data. Candidates are required to plan and design a spreadsheet solution to meet client requirements. They must be able to use a range of tools and techniques to create a spreadsheet solution that is based on their design and conduct testing of the solution to confirm functionality. Candidates are then required to evaluate their solution based on the user requirements.

Centres are reminded that submissions for this unit requires teachers to provide comments on the URS document that justifies why they are awarding the marks for each task and these URS forms must be submitted with candidate evidence. It is also important that the marks on the URS are checked carefully and that the evidence that is linked to these marks submitted as part of the sample. In addition, it is extremely important that centres make sure that the total marks are checked and that the correct marks are submitted to OCR.

It was noted during the May series, that there were a significant number of centres who had to be contacted due to clerical errors, where the marks on the URS did not tally with the overall mark claimed for candidates. This results in the OCR moderator and OCR moderation team having to email centres to request a check of the clerical error and remedial action being taken by the centre. A number of centres had to be contacted several times by the OCR moderator and/or moderation team before the issue was addressed. This can significantly delay candidate results as the OCR moderator cannot complete the moderation of the centre submission until the clerical errors have been addressed.

There is clear guidance within the NEA of the evidence that should be submitted by candidates for each task including the actual completed spreadsheet solution. A number of centres had to be contacted due to missing candidate work and on occasions, had to be contacted several times before the evidence was provided. This again can significantly impact the timing of results as the intention is always to not disadvantage candidates by adjusting marks due to missing evidence within a submission.

Centres should respond promptly to any issues raised by the OCR moderator and moderation team to make sure that candidates receive fair and accurate marks when the results are released. In addition, centres are reminded that the submission must be in digital format and that any paper-based evidence or URS documentation cannot be accepted.

Comments by Task

Task 1 – Planning and designing a spreadsheet solution

There are two strands within this task as follows:

1a: use of design tools when planning

1b: design of spreadsheet solution, output(s), HCI

There are still some centres that are not looking at each strand individually when marking candidate evidence and therefore the marks given can either be over-generous or too harsh.

1a: use of design tools when planning

1a relates to what design tools candidates are using for the planning and how they use them. Planning is the first step of the design process involving consideration for the organising, outlining and co-ordinating of the solution. At this stage it is not based on the overall content of the design as this is 1b, but the way the candidate has planned the solution by ensuring they understand the client requirements and what the intended outcome is. It should also include the identification of the software, assets and design tools they are going to use, when they are going to conduct testing and the order in which they will conduct tasks.

1b: design of spreadsheet solution, output(s), HCI

When considering the mark band and associated marks for strand 1b, it is important that teachers consider not only what design tools and features the candidate has used, but also how well they have documented the design requirements for every aspect of the solution. The question of whether a third party could design the solution without asking questions is a good indication as to how well the candidate has designed the solution to meet client requirements. Things to consider are:

- a) has the candidate used appropriate design tools for each aspect of their design, e.g. use of flowcharts to show different functionality requirements?
- b) has the candidate included the design requirements for every aspect of the solution for the client, e.g. what formulae they are going to use and what the formulae will contain (candidates should not be attempting to provide cell references but more of a pseudo code), what output(s) they are going to produce, etc?
- c) has the candidate designed an HCI that allows a user to interact with the spreadsheet solution in a clear and effective way?

When considering these different areas, a decision has to be made as to whether the design documentation is effective, adequate or limited and then where within the mark band marks can be given.

There were some very good planning and design documentation submitted by candidates which justified the mark band and associated marks they were given. However, there were a number of candidates with over-inflated marks being given for Band 3 when the level of detail was adequate at best which is Band 2.

While design documentation can be hand drawn or produced digitally, it is important that the OCR moderator can access them. Some centres submitted files that used specialist software resulting in being contacted to provide the evidence in an accessible format, e.g. use of Visio files being converted to pdf. In addition, it is important that any images of handwritten designs and/or digital designs are of an appropriate size and can be viewed clearly by the OCR moderator.

1a: Use of design tools when planning

- Planning is the first step in the design process
- It is the process of organising, outlining and co-ordinating:
 - resources to create the spreadsheet solution
 - tasks to be carried out
 - strategies to be used including iterative testing
- Managing the various stages of the design process

Misconception



1a and 1b are two different strands and should be marked based on the requirements for each strand.

1a: use of design tools and features when planning

1b: design of spreadsheet solution, output(s) and HCI

Teachers sometimes confuse the content of the design with the planning stage.

Assessment for learning



Steps to follow when planning:

- 1) define objectives – what do they need to accomplish
- 2) develop the tasks required to meet the objectives
- 3) identify the resources required to implement the tasks including design and testing
- 4) finalise the plan

The planning documentation may be in the form of a report and could include tables containing information such as the assets to be used and the design documentation they will develop.

1b: Design of spreadsheet solution, output(s), HCI

Design stage:

- design comes after planning
- it is the process of creating/devising the arrangement, structure, form of the solution
- it includes consideration of the aesthetics and functionality
- there should be consideration to the requirements of the end user, e.g. user interaction

Purpose of design tools:

- visualise the layout
- visualise the inputs and outputs
- plan the flow
- plan the user interaction

Assessment for learning**Mindmaps:**

- initial design tool
- useful for generating and documenting ideas
- central node contains purpose
- nodes and sub-nodes used to document ideas
- indicates relationships between content, style, inputs, outputs

Assessment for learning**Flowchart:**

- useful when designing the action flow (how the user will interact with the spreadsheet solution)
- plans the process of the calculations
- plan the steps of calculations
- plans the linking of data (and worksheets)
- plan the linking of outputs from data

Assessment for learning**Storyboards:**

- sequence of images to represent a series of steps
- shows how interaction will take place and how it will appear
- visually represent the design sequences of the linking of worksheets
- visually represent the design sequences of the movement of data through the worksheets and the outputs

Assessment for learning**Visualisation diagrams:**

- provide visual detailed layouts of worksheets and outputs
- information relating to colour, fonts, headings, shapes, icons, images, sizes etc
- overall colour scheme and house style
- can be hand drawn or created digitally
- **MUST INCLUDE:**
 - details of assets to be used

Assessment for learning



Wireframes:

- documents what the spreadsheet will do
- visual outline design of worksheets and outputs
- used to see how things look together
- **Low-fidelity wireframe:**
 - include basic content and visuals
 - usually static
 - help to visualise and test early ideas and requirements
- **High-fidelity wireframes:**
 - more complete representation of the end design
 - can be interactive and respond to user actions
 - mimic real user interaction
 - aesthetics and content are more precise

Task 2 – Creating the spreadsheet solution

As with Task 1, this task also comprises of two different strands:

2a: Using tools and techniques to create the solution

2b: Creating user interaction, processes generating accurate and quality data, presentation of information

Teachers are required to look at each strand individually when determining the marks to be given. A candidate may achieve more marks for one strand than the other. While many candidates produced some good spreadsheet solutions, there were a number of candidates who were given inflated marks when there were a number of issues such as errors and inefficiencies within the spreadsheet model. This included but is not limited to:

For strand 2a, teachers should be considering how the candidates have used the tools and features within the spreadsheet software as well as the techniques implemented to get the results. It was noticeable that a number of candidates did not understand what data validation was and therefore did not implement any form of data validation. This is not only a skills requirement but a knowledge requirement that candidates need to know and understand for R050.

For 2b: It is advisable to consider each of the bullet points within the mark scheme as follows:

- inaccurate data where incorrect formulae had been used or incorrect cell references used within the formulae
- lack of use of formulae with calculations performed outside of the spreadsheet solution and manually input
- misinterpretation of the requirements, e.g. discount for block bookings only. A number of candidates applied discounts to both
- lack of or incorrect calculation for price increase of £1.25 which related to class bookings only. Some candidates also applied the increase to block bookings which was incorrect
- applying protection using passwords for entire worksheets where the end user would be expected to enter data as opposed to just cells that would benefit from protection such as cells containing formulae
- poorly designed charts with lack of labelling of x and y axis and no chart title and/or legend. A number of candidates also included total values as well as individual values
- some candidates had calculated the slowest time instead of the fastest time
- how effective is the user interaction when using the solution to meet the needs of the client requirements?

- has the candidate used efficient processes to produce data that is of good quality and accurate?
- does the presentation of the information provide a clear message and is it relevant to the requirements of the client?
- has the candidate implemented any form of data integrity? The number of different data integrity techniques they use also determines the mark band they would be placed in for this particular requirement.
- has the candidate used the solution to fully develop the future predictions, which in the case of this NEA was in relation to price increases.

A candidate may be placed in different mark bands for the different assessment points to be covered and therefore a best line of fit is applied, e.g. a candidate may be Band 3 for the user interaction, Band 2 for the presentation of information and Band 1 for the processing of information to produce high quality and accurate data.

Some candidates only create one chart based on the example given within the NEA assignment. Candidates should be considering what the data is telling them and how could this be presented in a visual format. A higher level candidate would produce more than one chart/list as well as those alluded to in the NEA.

There were occasions where candidates were given higher marks when their solution was clearly inaccurate and in some instances, did not reflect the design documentation they had prepared.

Misconception



2a and 2b are two different strands and should be marked based on the requirements for each strand.

2a: use tools and techniques to create the solution

2b: creating:

- user interaction with the spreadsheet
- processes generate accurate and quality data
- presentation of information

Teachers sometimes confuse the content of the design with the planning stage.

Task 3 – Testing and evaluating a spreadsheet solution

There are two aspects to this final task. The test plan and evidence of testing followed by the evaluation of the effectiveness of the spreadsheet model against client requirements.

Candidates are provided with a test plan with a series of tests that must be completed during and after the development of the spreadsheet solution. While candidates may include extra tests, they cannot be accredited with extra marks.

Some candidates did provide a well-documented test plan, however, there were many candidates who did not complete all of the tests or fully document any tests that they had completed. Some candidates claimed that they had conducted some of the tests when the spreadsheet solution indicated that they had not implemented the requirements originally indicated in the NEA assignment and therefore could not have actually conducted the test.

A well-documented test plan will include what test data will be used. An example is when confirming the correct result of a calculation such as the correct income for swimmer 251. The expectation is that candidates will include the manual calculation they have used to establish what the income should be and compare this with what the spreadsheet solution is presenting as the result. In addition, where a test has failed, the expectation is that the candidate will provide evidence of re-testing. An effectively documented test plan would help a third party to not only know what tests to conduct but also what to use as test data, how to use the test data as well as the expected and actual results.

The final strand is for the evaluation of the effectiveness of the spreadsheet solution against the client requirements. Many candidates while 'writing a lot' either identified what they did and didn't do (Band 1) or described what they did (Band 2). This is not a comprehensive evaluation and yet many candidates had been given inflated marks.

The evaluation covers two distinct areas, the effectiveness of the overall solution when meeting the client requirements and the effectiveness of the HCI for the user interaction with the solution. A large number of candidates tended to refer to the effectiveness of the HCI in great deal but lacked the same breadth and depth when referring to the effectiveness of the overall solution.

Assessment for learning



Testing:

- document the test data that would be used, e.g. show the manual calculations
- clearly state what the expected result of the test is as well as what the actual result was
- provide evidence of re-testing

Assessment for learning



Evaluation:

Candidates should consider whether their solution has been developed in the best way or whether there are areas that would benefit from improvement. This may be in relation to the accessibility of information. This includes the presentation of the outputs, the use of formulae as well as the layout of the worksheets to improve accessibility.

Unit R070 General overview

This is a mandatory NEA unit for the qualification. Candidates work through an OCR set NEA assignment brief that changes every year. The NEA is valid for the January and May series with the new NEA released at the end of June for candidates to work through for the following January and May series. Centres are reminded that they cannot use for example, the NEA for January and May 2024 for the January/May 2025 series.

The unit aim is for candidates to learn the basics of Augmented Reality (AR) and how to create an AR model prototype to showcase how it could be used for a defined target audience to support the presentation of information. Candidates learn the purpose, use and types of AR in different contexts and how they are used on a range of digital devices. Candidates develop skills to enable them to plan, design and create AR model prototypes using a range of tools and techniques. They learn the importance of iterative testing and follow this process to test their prototype during development. They review the processes they followed to develop the AR model prototype and consider where they could improve/do differently when developing future models.

Centres are reminded that submissions for this unit requires teachers to provide comments on the URS document that justifies why they are awarding the marks for each task and these URS forms must be submitted with candidate evidence. It is also important that the marks on the URS are checked carefully and that the evidence that is linked to these marks submitted as part of the sample. In addition, it is extremely important that centres ensure that the total marks are checked and that the correct marks are submitted to OCR.

It was noted during the May series, that there were a number of centres who had to be contacted due to clerical errors, where the marks on the URS did not tally with the overall mark claimed for candidates. This results in the OCR moderator and OCR moderation team having to email centres to request a check of the clerical error and remedial action being taken by the centre. A number of centres had to be contacted several times by the OCR moderator and/or moderation team before the issue was addressed. This can significantly delay candidate results as the OCR moderator cannot complete the moderation of the centre submission until the clerical errors have been addressed.

There is clear guidance within the NEA of the evidence that should be submitted by candidates for each task including a video of the candidate demonstrating their AR model prototype as if they were trying to promote their product to a client. Several centres submitted QR codes or links to websites. OCR Moderators are not permitted to accept either of these methods and therefore moderation was delayed whilst centres were contacted to provide the correct form of evidence. In addition, some candidates submitted video evidence of the development of the AR model prototype. This is not a requirement and can impact on the time available to the candidate to complete the assignment.. A number of centres had to be contacted due to missing candidate work and on occasions, had to be contacted several times before the evidence was provided. This again can significantly impact the timing of results as the intention is always to not disadvantage candidates by adjusting marks due to missing evidence within a submission.

Centres should respond promptly to any issues raised by the OCR moderator and moderation team to ensure that candidates receive fair and accurate marks when the results are released. In addition, centres are reminded that the submission must be in digital format and that any paper-based evidence or URS documentation cannot be accepted

Centres are also reminded that the candidates should be following the client requirements that are within the assignment brief and additional client requirements document. For example, candidates were not required to complete the entire process of displaying information and playing audios for all of the Paris locations. Whilst at least three locations should be displayed on the map of Paris, only one location required the follow through of triggers and layers for the information and audios.

Some centres had issues with the SDK they had selected. It is important that centres test the SDKs prior to candidates working through the assignment to ensure that it will enable candidates to meet the requirements. This includes the ability for any sound recordings to be heard when the demonstration is videoed by the candidate. There were a number of candidates where there was no audio and no indication that the candidate had attempted to include audio. In some cases, candidates were unable to produce the videos because the SDK was unstable on the system being used by the centre. If centres do identify a problem with the use of the SDK prior to submission, they should contact OCR immediately and seek advice.

Comments by Task

Task 1 – Designing an Augmented Reality (AR) model prototype

There are two strands within this task as follows:

2a: Use of design tools and features when planning

2b: Planning and designing to include the planning and designing documentation

There are still some centres that are not looking at each strand individually when marking candidate evidence and therefore the marks given can either be over-generous or too harsh.

2a: Use of design tools and features when planning

2a relates to the planning and design considerations as well as the selection of appropriate design tools. As with R060, planning is the first step in the design process and consideration is given to:

- a) the purpose and user requirements and target audience
- b) the device the AR model prototype will be used on eg screen size, orientation and type of device
- c) the content, assets, triggers and layers
- d) the user interaction
- e) the design tools that will be used and how they will be used

2b: Planning and designing to include the planning and designing documentation

When considering the mark band and associated marks for strand 2b, it is important that teachers consider not only what planning and design documentation the candidate has used, but also how well they have used them for every aspect of the planning and design of the AR model prototype. The question of whether a third party could design the AR model prototype without asking questions is a good indication as to how well the candidate has design the solution to meet client requirements. Things to consider are:

- a) does the planning documentation include an analysis of the user requirements, how the user requirements will be met as well as an explanation of what these user requirements are? Candidates cannot be given marks for merely copying and pasting the user requirements from the assignment brief or user requirements document.
- b) has the candidate considered what assets, triggers and layers they will use and how they will use them?
- c) has the candidate considered the user experience to include the interaction with the AR prototype along with the device(s) it may be used on, the screen size and the orientation of the screen?
- d) does the design documentation cover all aspects of the AR model prototype and include the technical development aspect?

When considering these different areas, a decision has to be made as to whether the design documentation is effective, adequate or limited and where within the mark band marks can be given.

There were some very good planning and design documentation submitted by candidates which justified the mark band and associated marks they were given. This included detailed planning documentation and design documentation and demonstrated the candidates thoughts processes and considerations as well as detailed technical requirements to achieve the overall purpose. However, there were a number of candidates with over-inflated marks being given for Band 3 when the level of detail was adequate at best

which is Band 2. Candidates did not consider the end result and how it would be displayed to the user or how they interacted with the app. The candidates may have used several design tools such as mind maps, flowcharts and visualisation diagrams, but the level of detail was lacking, especially in relation to the technical aspect.

While design documentation can be hand drawn or produced digitally, it is important that the OCR moderator can access them. Some centres submitted files that used specialist software resulting in being contacted to provide the evidence in an accessible format, e.g. use of Visio. In addition, it is important that any images of handwritten designs and/or digital designs are of an appropriate size and can be viewed clearly by the OCR moderator.

2a: Use of design tools and features when planning

- planning is the first step in the design process
- it is the process of organising, outlining and co-ordinating
 - resources to develop the AR model prototype
 - tasks to be carried out
 - strategies to be used including iterative testing
- managing the various stages of the design process

Misconception



2a and 2b are two different strands and should be marked based on the requirements for each strand.

2a: use of design tools and features when planning

2b: planning and designing of the AR model prototype

Teachers sometimes confuse the requirements for 2a and 2b.

Assessment for learning



Steps to follow when planning:

1. define objectives – what do they need to accomplish
2. develop the tasks required to meet the objectives
3. identify the resources required to implement the tasks including design and testing
4. finalise the plan

The planning documentation may be in the form of a report and could include tables containing information such as the assets to be used and the design documentation they will develop.

2b: Planning and designing of the AR model prototype

Design stage:

- design comes after planning
- it is the process of creating/devising the arrangement, structure, form of objects
- it includes consideration of the aesthetics and functionality
- there should be consideration to the requirements of the end user, e.g. user interaction, device(s) to be used, screen size and orientation

Purpose of design tools:

- visualise the layout
- visualise the inputs and outputs
- plan the flow
- plan the user interaction

Assessment for learning



Mindmaps:

- initial design tool
- useful for generating and documenting ideas
- central node contains purpose
- nodes and sub-nodes used to document ideas
- indicates relationships between content, style, inputs, outputs

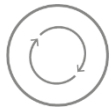
Assessment for learning



Flowchart:

- useful when designing the action flow (how the user will interact with the AR model prototype)
- includes the steps and decisions required for the access of content (how will the AR app provide access to the relevant information – the functionality)

Assessment for learning



Mood boards:

- helps to generate ideas
- used for collecting relevant sample materials
- stimulates creativity and innovative approaches
- are NOT used to show what the final solution will look like

Assessment for learning



Storyboards:

- sequence of images to represent a series of steps
- shows how interaction will take place and how it will appear
 - visually tell the story
 - detail the idea, settings, surroundings, sequence of events and interaction
 - reflect the design ideas for the AR model prototype and user point of view
- **MUST INCLUDE:**
 - the surroundings the user will see and the objects within the surroundings
 - the position of the user within the surroundings
 - the start and end point of each scene
 - the user interaction taking place and what the user will be doing
 - what a user can and cannot do during each scene
 - documented detail of any special effects or notes

Assessment for learning



Visualisation diagrams:

- provide visual detailed layouts of worksheets and outputs
- information relating to colour, fonts, headings, shapes, icons, images, sizes etc
- overall colour scheme and house style
- can be hand drawn or created digitally
- **MUST INCLUDE:**
 - sketches/drawings of the AR model prototype
 - assets to be used (images, video, audio, text etc)
 - annotations explaining the choices made

Assessment for learning



Wireframes:

- documents what the spreadsheet will do
- used to see how things look together
- **Low-fidelity wireframe:**
 - include basic content and visuals
 - usually static
 - help to visualise and test early ideas and requirements
- **High-fidelity wireframes:**
 - more complete representation of the end design
 - can be interactive and respond to user actions
 - mimic real user interaction
 - aesthetics and content are more precise

Task 2 – Creating an Augmented Reality (AR) model prototype

Centres are reminded that candidates are required to submit video evidence demonstrating the AR model prototype they have created. QR codes, links to websites and screenshots are not acceptable forms of evidence. There were a number of centres where OCR moderators had to request the video evidence. Candidates should also be advised that they need to take their time when demonstrating their product and not click on all assets at the same time. They should demonstrate it the way they would demonstrate it to a client. There were a number of candidates who clicked on the chosen location and while the first speech bubble was on display and the audio playing, they triggered the next speech bubble to appear and the second audio to play simultaneously. This is not effective and does not meet user requirements. This indicates that the user experience is not effective. In addition, there were some candidates who submitted videos and the audio could not be heard at all. It is recommended that teachers make sure that the computer systems and software is setup to help candidates to record all aspects of the AR model prototype including any effects, animations and audio.

OCR moderators reported seeing some very good examples of the AR model prototype. This was invariably from candidates who had conducted careful planning and design within Task 1 and followed this through to the creation of the prototype. Centres are reminded that candidates are free to add extra assets if they require, but they cannot be given extra marks.

It should also be noted that candidates are not required to use all of the assets but select a sample that will allow them to demonstrate how the AR app would function, the user interaction required and the overall user experience. This is what would be expected in industry when developers are trying to promote their products to businesses.

Many candidates included additional buttons for the end user to use to navigate the AR app, select a location, turn the audio on and off and navigate back and forth between the various speech bubbles for a specific location as well as between different locations. For the majority of candidates, these were effective and intuitive. However, some candidate did not consider the size of location of the buttons and therefore created a cluttered screen and/or did not indicate to an end user their purpose without trial and error.

It was noted that many candidates did not consider the mobile technological device that the AR app would be used on. This included the screen size and orientation. This was especially apparent for those candidates who used mobile devices to record their demonstration. It became apparent that the display of the assets was too large for the screen on the mobile phone and that the orientation was also not appropriate. These issues have an impact on the overall user experience and therefore candidates cannot be given the higher marks in Band 3 for this aspect. This is why it is important that candidates have had the opportunity to practice developing AR resources for use on mobile devices so that they gain a better understanding of how assets should be placed and re-sized, etc.

There are two strands to this task as follows:

3a: using tools and features for the for the creation of the prototype and incorporating user interaction

3b: presentation of information to the audience, quality of the information presented and the user experience

When marking the evidence teachers should consider each strand separately. A candidate may achieve higher marks for the use of the tools and features within the selected SDK and implemented good user interaction, however, due to the lack of consideration in other areas, the presentation and quality of the information may not be effective and the user experience flawed.

Assessment for learning

Provide opportunities for candidates to practise developing AR prototypes so that they are able to consider its use on mobile devices, taking into consideration the screen size and orientation.

Task 3 – Testing and reviewing

There are two distinct activities for this task:

4a: Testing**4b: Review of:**

- a) Effectiveness of the processes followed for design and creation
- b) Effectiveness of tools and techniques during design and creation

4a: Testing

Unlike R060, candidates have to identify their own tests. The testing required is purely technical testing. Some candidates did include user testing as well, but this is not required and candidates should not be given extra marks.

Testing is supposed to be iterative testing and it was noted that most candidates had only conducted end testing. Candidates could start to develop their test plan during the planning and design stage. They will have identified what it is they want to do, so they can then enter onto their test plan the tests they want to conduct.

Candidates are not required to provide screenshot evidence of testing but the majority of candidates chose to include them. The documenting of the tests was weak for many candidates as they may have stated what they were testing but did not state fully how they were going to be tested. Candidates should also be encouraged to test how the AR model prototype would function on a mobile device. This would give them an early indication as to whether the assets can be viewed correctly or are too large for the screen, whether the screen looks too cluttered and where appropriate any written information can be read by the user.

4b: Review of:**a) Effectiveness of the processes followed for design and creation****b) Effectiveness of tools and techniques during design and creation**

If centres have submitted for candidates to complete R060 first, then candidates are tending to be encouraged to complete an evaluation. This is incorrect as for R070, the requirement is for candidates to conduct a review of the processes they followed as well as the tools and techniques used. The review should start with the planning and design process, through to creating the AR model prototype and the testing.

There were a number of candidates who did a reasonable review where they explained the effectiveness of the various processes they followed and the tools and techniques used. However, some candidates focused on the effectiveness of the tools and techniques (the second strand) and did not explain the effectiveness of the processes they followed when designing and creating. Very few candidates referred to the process of conducting testing.

A number of candidates were given inflated marks when they are merely stated what they did (or didn't do) to create the AR model prototype to meet client requirements. This is only Band 1. Some candidates did provide a description which is Band 2. The explanation should expand to give the reasons why the processes they followed and the tools and techniques they used were effective and not just about how they did it.

Misconception



R060 requires an **evaluation** of the effectiveness of the various aspects of the spreadsheet solution.

R070 requires a **review** explaining the effectiveness of the processes followed and the tools and techniques used. This should cover planning, design, creation and testing.

OCR support



There are a range of teaching and assessment resources and support available through [Teach Cambridge](#). This includes:

- Exemplification of candidate work to support assessment decisions.
- New Principal Moderator video which supports teachers understanding of the NEA.
- Teacher network events - online and face to face events to support teachers.
- Assessment guides - Understand more about our approach to assessment in the 2022 Cambridge Nationals qualifications.
- A range of CPD available to suit your requirements.
- You can also contact our subject advisor team on support@ocr.org.uk for further advice on this report, and/or support with teaching and assessment of all aspects of the course.

Supporting you

Teach Cambridge

Make sure you visit our secure website [Teach Cambridge](#) to find the full range of resources and support for the subjects you teach. This includes secure materials such as set assignments and exemplars, online and on-demand training.

Don't have access? If your school or college teaches any OCR qualifications, please contact your exams officer. You can [forward them this link](#) to help get you started.

Reviews of marking

If any of your students' results are not as expected, you may wish to consider one of our post-results services. For full information about the options available visit the [OCR website](#).

Access to Scripts

We've made it easier for Exams Officers to download copies of your candidates' completed papers or 'scripts'. Your centre can use these scripts to decide whether to request a review of marking and to support teaching and learning.

Our free, on-demand service, Access to Scripts is available via our single sign-on service, My Cambridge. Step-by-step instructions are on our [website](#).

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Enhance your skills and confidence in internal assessment

What are our online courses?

Our online courses are self-paced eLearning courses designed to help you deliver, mark and administer internal assessment for our qualifications. They are suitable for both new and experienced teachers who want to refresh their knowledge and practice.

Why should you use our online courses?

With these online courses you will:

- learn about the key principles and processes of internal assessment and standardisation
- gain a deeper understanding of the marking criteria and how to apply them consistently and accurately
- see examples of student work with commentary and feedback from OCR moderators
- have the opportunity to practise marking and compare your judgements with those of OCR moderators
- receive instant feedback and guidance on your marking and standardisation skills
- be able to track your progress and achievements through the courses.

How can you access our online courses?

Access courses from [Teach Cambridge](#). Teach Cambridge is our secure teacher website, where you'll find all teacher support for your subject.

If you already have a Teach Cambridge account, you'll find available courses for your subject under Assessment - NEA/Coursework - Online courses. Click on the blue arrow to start the course.

If you don't have a Teach Cambridge account yet, ask your exams officer to set you up – just send them this [link](#) and ask them to add you as a Teacher.

Access the courses **anytime, anywhere and at your own pace**. You can also revisit the courses as many times as you need.

Which courses are available?

There are **three types** of online course for Cambridge Nationals.

All teachers delivering our redeveloped Cambridge Nationals suite from September 2022 are asked to complete the course **Essentials for the NEA**, which describes how to guide and support your students. **You'll receive a certificate which you should retain.**

Following this you can also complete a subject-specific **Focus on Internal Assessment** course for your individual Cambridge Nationals qualification, covering marking and delivery of the NEA units.

We have also created subject-specific **Understanding the examined unit** courses that provide a wealth of information to support you with the delivery, assessment, and administration of the examined unit. The courses outline the assessment structure, including details on synoptic assessment, performance objectives and command words for your Cambridge Nationals qualification. Working through the course, you have an opportunity to interact with resources developed to support the exam, in particular candidate exemplars and mark scheme guidance. The final section covers details on administrative requirements, including assessment opportunities, entry rules and resits.

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If you have any queries, please contact our Customer Support Centre on 01223 553998 or email support@ocr.org.uk.

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Need to get in touch?


If you ever have any questions about OCR qualifications or services (including administration, logistics and teaching) please feel free to get in touch with our customer support centre.

Call us on
01223 553998

Alternatively, you can email us on
support@ocr.org.uk


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