

Amended: 1<sup>st</sup> November 2021

## Data Analyst (ST0118)

### END-POINT ASSESSMENT ADDITIONAL GUIDANCE ON SOME OF THE OCCUPATIONAL BRIEF COMPETENCY STANDARDS

The following guidance is not intended for training provider use.

The guidance is designed to support End-Point Assessment Organisations (EPAOs) by providing some clarity to those parts of the occupational brief that have caused uncertainty when assessing and moderating apprenticeship work.

The table shows individual competency standards and the minimum expected requirements to pass some of the criteria listed in the occupational brief. It then offers guidance on how this could be interpreted.

Note that there are other criteria (competency standards) in the occupational brief. This table focuses on just those competency standards EPAOs felt needed further guidance.

This is indicative guidance only and represents an attempt to develop a shared understanding of how the competency standards should be interpreted.

| <b>The What – what the apprentice has shown they can do</b> |   |  |
|---|---|--|
| <b>Competency Standard</b>                                  | <b>Minimum expected requirements for a pass</b>   | <b>Guidance to aid understanding</b>   |
| Collect and compile data from different sources             | <p>Compiling data in preparation for analyses is a core part of data analysis and can involve manually compiling data from multiple sources including:</p> <ul style="list-style-type: none"> <li>• databases</li> <li>• spreadsheets</li> <li>• reports</li> </ul> | <p>It may be more usual to see SQL or similar because it's an industry wide tool but other methods are being used. Other examples could include:</p> <ul style="list-style-type: none"> <li>- No SQL</li> <li>- SAP Queries</li> <li>- Python</li> <li>- Tableau live database link</li> <li>- PowerBI Live database</li> </ul> <p>There are multiple valid options and so assessors need to be attuned to the core underlying competences being assessed.</p> |

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|---|--|---|
| <p>Perform routine statistical analyses and ad-hoc queries</p>  | <p>Apprentices should be able to undertake standard analyses using industry standard methods using popular methods:</p> <ul style="list-style-type: none"> <li>• general linear model: A widely used model usable for assessing the effect of several predictors on one or more continuous dependent variables.</li> <li>• generalised linear model: An extension of the general linear model for discrete dependent variables.</li> <li>• structural equation modelling:             <ul style="list-style-type: none"> <li>○ Usable for assessing latent structures from measured manifest variables.</li> </ul> </li> <li>• Item response theory: Models for assessing one latent variable from several binary measured variables.</li> </ul> | <p>The list provided is offered as examples rather than mandatory coverage. Evidence seen will be sufficient to meet the clear competency standard statement.</p>   |
| <p>Use a range of analytical techniques such as data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data</p> | <p>Apprentices need to be able to apply a range of analytical techniques, including:</p> <ul style="list-style-type: none"> <li>• data mining tools to discover useful patterns in large data sets.</li> <li>• time series analysis where data is taken over time in order to extract meaningful statistics and other characteristics</li> <li>• time series forecasting where a model is used to predict future values based on previously observed values.</li> </ul>  | <p>If the time series work has been part of the statistical analysis work this is acceptable.</p> <p>Analysis can include a trend line on a graph which is interpreted for use in the business. Time series can also decompose showing peak months with a business interpretation without any statistics. This would be entirely valid analysis.</p>      |
| <p>Summarise and present the results of data analysis to a range of stakeholders making recommendations.</p>  | <p>It is important that apprentices can summarise and present their findings:</p> <ul style="list-style-type: none"> <li>• summarise the outcomes of an analysis</li> <li>• present data to a wide range of stakeholders</li> </ul>  | <p>Presenting can be done in a number of ways:</p> <ul style="list-style-type: none"> <li>• can be surfacing the output of their analysis in a visual way</li> <li>• can be presenting via web-based tools</li> <li>• presenting to a group or audience using graphs and/or presentational software</li> <li>• spreadsheets, pivot tables etc.</li> </ul> |