**NZQA**

**Approved**

Achievement standard: 91263 Version 2

Standard title: Design a questionnaire

Level: 2

Credits: 3

Resource title: The right price

Resource reference: Mathematics and Statistics VP-2.8 v2

Vocational pathway: Services Industries

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| Quality assurance status | These materials have been quality assured by NZQA.  NZQA Approved number A-A-02-2015-91263-02-8194 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.  Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

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Learner instructions

# Introduction

This assessment activity requires you to design a questionnaire for the owner of a beauty therapy business.

You are going to be assessed on how you design a questionnaire, with statistical insight, for the owner of a beauty therapy business. You will integrate statistical and contextual knowledge relevant to the purpose of the survey in the design process.

The following instructions provide you with a way to structure your work so you can demonstrate what you have learnt and achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

An important part of running a business is knowing about the competition, the products they sell and the prices they charge. This knowledge can help with making business decisions about products and services, for example deciding on prices for existing products or new products.

Jenna owns a beauty therapy business. Reviewing the business and making improvements are part of her business plan. In this activity, you will design a questionnaire about business drivers (such as market share, pricing strategies, profit margins) to assist Jenna with her review.

Your final product will be presented as a report about the questionnaire design process, and will include your draft and final questionnaires.

Working independently, plan, write and review questions you have designed for your questionnaire. This will involve:

* determining the purpose of the survey
* clarifying the specific information needs of the survey and the groups who will use the data
* posing survey questions and considering sources of variation by determining relevant variables to be collected, determining appropriate measures for each variable, and using an appropriate range of question types
* checking the survey questions by carrying out a desk review and by conducting pilot survey(s), including collecting and recording data
* refining the questionnaire based on the results of the pilot survey.

Keep a journal or log book to show the process you have used to design your questionnaire. Keep notes about:

* the survey questions you have used and how they build on each other or link together
* why you have included particular survey questions
* the types of survey questions you have used and why
* reflections, analysis, and refinement to your questions following your desk review(s) and pilot survey(s)
* any changes you have made to the survey questions and your reasons for these changes
* how well your questionnaire meets the selected purpose
* statistical and contextual information and the knowledge used to refine your questionnaire.

Use your journal or log book notes to prepare a report that documents your questionnaire design process, including your final questionnaire. Your report should contain the following:

* Introduction – a description of the purpose for your questionnaire and a summary of the key information that your questionnaire provides.
* Design process – a discussion of the process you used to design your questionnaire, reflecting on how well your questionnaire meets the given purpose, and the statistical and contextual information and knowledge used to refine your questionnaire.
* Questionnaire – your final questionnaire.
* Appendix – evidence of your design process, for example your journal or log book and your draft (initial) questionnaire.

The quality of your report, including the discussion and reasoning about your questionnaire design process, and how well you link this to the context, will determine the overall grade.

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to design a questionnaire, with statistical insight, for the owner of a beauty therapy business. Learners will integrate statistical and contextual knowledge relevant to the purpose of the survey in the design process.

# Conditions

Learners are provided with a purpose for the questionnaire. The context must be familiar to the learner and background details about the purpose, and use of the survey results, must be available.

Learners may use appropriate technology, such as statistical software or spreadsheets.

The report could be, but is not restricted to, a presentation using computer software, a written report, or an oral presentation. The method of presentation can be specified by the assessor/educator.

# Resource requirements

A useful guide to good survey design is available from Statistics NZ. See [www.stats.govt.nz/surveys\_and\_methods/methods/survey-design-and-data-collection/guide-to-good-survey-design-2nd-edition.aspx](http://www.stats.govt.nz/surveys_and_methods/methods/survey-design-and-data-collection/guide-to-good-survey-design-2nd-edition.aspx).

# Additional information

Relevant contextual knowledge is essential. For example, learners need to research business drivers (such as market share, pricing strategies, business margins) and be familiar with company products and similar services provided by competitors.

# Assessment schedule: Mathematics and Statistics 91263 – The right price

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner designs a questionnaire showing evidence of using each component of the questionnaire design process by:   * stating the purpose of the questionnaire, identifying the groups who will use the data, and providing a brief overview of what information the questionnaire will provide * posing survey questions for the initial questionnaire with relevant variables, appropriate measures for each variable, and an appropriate range of question types * carrying out a desk review to check the initial survey questions and conducting a pilot survey, including collecting and recording data. Refining the questionnaire (as appropriate) based on the results of the pilot survey * documenting the design process, including the draft and final questionnaire   For example:  The learner provides a log book which includes both a first draft and a final questionnaire. Aspects relating to each component of the questionnaire design process are identified.  The examples above are indicative of the evidence that is required | The learner designs a questionnaire with justification linking components of the questionnaire design process to the context and explaining relevant decisions made in the design process by:   * stating the purpose of the questionnaire, identifying the groups who will use the data, with explanation, and providing an overview of the type of data and information the questionnaire will provide * posing survey questions for the initial questionnaire with relevant variables, appropriate measures for each variable, an appropriate range of question types, and providing comments that have a clear link to the context and include an explanation for decisions   For example:  The learner gives reasons for aspects such as the different choices of question type and content or rejects some initial ideas for the questionnaire. Reasons are given for the order of questions.   * carrying out a desk review to check the initial survey questions and conducting a pilot survey, including collecting and recording data. Refining the questionnaire (as appropriate) based on the results of the pilot survey   For example:  The learner identifies and discusses issues that have arisen from both the desk review and the pilot survey, and provides appropriate reasons for alterations that have been made to the questionnaire. The final questionnaire is well structured and questions are appropriate to the purpose of the survey   * documenting the design process, including the draft and final questionnaire   For example:  The learner provides a log book that includes both a first draft and a final questionnaire. Aspects relating to each component of the questionnaire design process are identified and explanations for these aspects or reasons for changes are discussed.  The examples above are indicative of the evidence that is required | The learner designs a questionnaire with statistical insight integrating statistical and contextual knowledge relevant to the purpose of the survey throughout the design process by:   * stating the purpose of the questionnaire, identifying the groups who will use the data * providing a detailed overview of the type of data and information the questionnaire will provide   For example:  The learner has independently researched the purpose of the questionnaire.   * posing survey questions for the initial questionnaire with relevant variables, appropriate measures for each variable, an appropriate range of question types and providing comments that have a clear link to the context and include an explanation for decisions   For example:  The learner investigates different choices of question type and content for a particular desired response, giving reasons for final decisions. Statistical reasons referring back to the purpose of the questionnaire have been given for the order of questions or rejecting some initial ideas for the questionnaire.   * carrying out a desk review to check the initial survey questions and conducting a pilot survey, including collecting and recording data, and refining the questionnaire (as appropriate) based on the results of the pilot survey   For example:  The learner identifies and discusses issues that have arisen from both the desk review and the pilot survey with respect to the purpose of the questionnaire providing appropriate reasons for alterations that have been made. Comments show that possible limitations of the process used in the pilot are identified and implications for the final questionnaire have been considered. The final questionnaire is well structured and questions are appropriate to the purpose of the survey.   * documenting the design process, including the draft and final questionnaire   For example:  The learner provides a log book that includes both a first draft and a final questionnaire. Aspects relating to each component of the questionnaire design process have been discussed in context with statistical explanations for decisions related to changes in the questionnaire. There is evidence of contextual reflection on components of the questionnaire design process. Possible extensions to the purpose of the survey are considered, with discussion on how the questionnaire would have to be altered to cater for these.  The examples above are indicative of the evidence that is required. |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.