**NZQA**

**Approved**

Achievement standard: 91266 Version 2

Standard title: Evaluate a statistically based report

Level: 2

Credits: 2

Resource title: Personal dilemmas

Resource reference: Mathematics and Statistics VP-2.11 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-02-2015-91266-02-8199 |
| 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 evaluate a statistically based report about attitudes to lying, cheating and stealing.

You are going to be assessed on how you demonstrate statistical insight by integrating statistical and contextual information in your evaluation of the report.

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

Ian has just been appointed restaurant manager at a newly opened restaurant, Sydenham Towers. He has held previous positions in the hospitality industry but not as manager. He is responsible for employing ten new staff. As part of his new role he has to prepare a report for the owner of the restaurant about an aspect of hiring and managing staff. He has chosen to make the report about the honesty of people he deals with on a day to day basis. Ian believes that knowledge about the possible integrity of customers and staff is important when he will be planning staff training programmes about dealing with potential issues, such as stealing or lying, in the workplace.

Working independently, read and analyse the presentation from Colmar Brunton onthe attitudes of young people to lying, cheating and stealing. An article from *The New Zealand Herald* is provided in Resource A, and a shorter version in the form of a PowerPoint presentation can be found at <http://www.colmarbrunton.co.nz/index.php/news/lying-cheating-stealing>.

The format of your evaluation should be agreed between you and your assessor/educator.

You need to write down the following:

* the source of the report
* a short (one paragraph) summary of the report
* the purpose of the report
* what the evaluation has told Ian about the integrity of customers and staff.

Identify and comment on the features of the survey that are relevant to the purpose of the report:

* population measures and variables
* sampling methods
* survey methods
* sampling and possible non-sampling errors
* sample size.

You also need to evaluate the findings of the survey.

Make an overall evaluation of the effectiveness of the Colmar Brunton presentation in terms of its purpose.

Justify your statements with supporting evidence.

Make clear links to the context, including reference to relevant background information.

You may use the focus questions in Resource B as a guide.

The quality of your evaluation, including your discussion and reasoning, and how well you link this to the context of the report, will determine your grade.

# Resource A

## Newspaper report



### Lying, cheating - it's all part of life

By Vaimoana Tapaleao

5:30 AM Friday Nov 23, 2012

Young people own up to their sins, but most say they're happy with their personal standards and ethics.

Claudia Dorr, 19, talks to the Herald about what young people think about lying, cheating and stealing. (Photo: Dean Purcell)

Lying is sometimes justified and therefore okay, according to young people, many of whom admit they have cheated in exams or stolen from shops.

In a survey of 500 people aged 18 to 30 years old, 89 per cent said they believed lying was sometimes necessary. A total of 92 per cent admitted cheating in one form or another in their lives – more than half of those surveyed admitted they had cheated in a high school exam, and one in five said they had cheated on their partner.

Just over half said it was "sometimes okay" to lie about being sick to take the day off work, and 55 per cent said it was okay to lie to avoid hurting someone's feelings.

On Queen Street, most teenagers spoken to said they had never and would never lie, cheat or steal.

Claudia Dorr, 19, said she had never cheated or stolen anything as it simply was the wrong thing to do.

"I'm not a religious person, but I've always been taught to do the right thing and to be honest. Cheating won't get you anywhere. Look at Valerie Adams and that Belarusian lady - you'll always get caught."

Miss Dorr admitted she did tell the odd white lie now and again, but only to protect someone.

Student Kusitafu Tu'uta, 17, said he had never cheated in anything, but admitted that if a shop owner were to give him extra change, he wouldn't own up to it.

"I'd keep walking. It's not my mistake, it's his."

Another student, George Samau, 18, said a white lie was sometimes necessary.

"Sometimes I'll lie because I don't want to hurt someone else - it's just a white lie and I'm doing it for the right reason."

Mr Samau said there was a time he cheated in a test as an intermediate student, but never in high school.

As for cheating on a girlfriend, he was adamant: "Straight up, I've never cheated on a girl. Karma will get you later on and it will happen to you."

Shannon-Lee Wawer, 16, admitted she had cheated once in a test at high school, but hardly ever told a lie simply because she was terrible at it.

The SayWhat study, carried out by Colmar Brunton between July and August, also indicated that 87 per cent of people were satisfied with their personal ethics and character.

Survey spokesman Spencer Willis said: "The most worrying thing is that it is deemed acceptable – 87 per cent of participants say they are satisfied with their ethics and character.

He said one participant summed up why dishonesty was so high: "Every person is constantly pressured by the media and society to bend the rules. The image of a person who is successful due to not playing by the book is extremely popular, so everyone gives in to it at some point."

### Excuses, excuses

89% believe lying is sometimes justified

92% of young people have cheated in one form or another

53% do not consider receiving too much change and not owning up as stealing

48% have stolen from a shop

52% have cheated in an exam or homework at high school

21% have cheated in a relationship.

*Source: Colmar Brunton Sayit poll of 500 people aged 18-30. Margin of error 4.4%*

<http://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=10849324>

# Resource B

## Focus questions

* What data is displayed in the report?
* What type of data is it, categorical or numerical?
* How is the data displayed in the report?
* Are the displays or measures included appropriate for the type of data?
* What summary statistics are used in the report?
* How accurate is the data?
* Where does the data quoted or used in the report come from?
* What survey questions were asked?
* Were the survey questions appropriate?
* Could the survey questions be misinterpreted or not give the data needed?
* What were the variables of interest?
* How were the variables of interest measured?
* Do the comments (descriptions) made in the report reflect accurately the data given?
* Are any comments misleading or biased?
* Could alternative analyses be made?
* Could the data have been interpreted in another way?
* What important data or information is not present?
* What questions is the report answering (what is the investigative question or questions)?
* Who is the report intended to be about (who is the intended population)?
* Who is the report aimed at (who might be interested in the outcomes)?
* What is the purpose of the report?
* What further information is needed?
* Are there any underlying or lurking variables that may have an impact on the outcome?
* Are the claims made in the statistically based reports valid and/or sensible?
* What main points should Ian report to the owner of the restaurant?

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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 evaluate a statistically based report, with statistical insight, about behaviour relating to lying, stealing and cheating, in order to report on the staff training needs to a restaurant owner.

# Conditions

Learners need to work independently to complete this activity.

Review the learners’ work in progress prior to the final due date. Confirm the format of the evaluation with the learners.

The evaluation could be, but is not restricted to, a slide show, written report, wiki page or oral presentation.

# Resource requirements

Learners are expected to have access to appropriate technology.

The assessor/educator will provide learners with the longer version of the report, copies of Resource A (the article from *The New Zealand Herald* website) and Resource B (focus questions) or another appropriate framework for evaluating reports.

Make sure that learners have access to background information about the context, for example newspaper articles or access to the internet.

# Additional information

None.

# Assessment schedule: Mathematics and Statistics 91266 – Personal dilemmas

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner evaluates a statistically based report by:* identifying the purpose of the report
* identifying and commenting on features of the survey relevant to its purpose

For example, the learner:* identifies the type of survey method and comments on the response rate
* identifies and comments on the sampling method
* identifies how the survey results are presented and comments on how effective the results are in providing information
* identifies the stated conclusion of the report and makes a relevant comment on how accurate it is.

*The examples above are indicative of the evidence that is required.* | The learner evaluates a statistically based report, with justification, by:* supporting the comments on the features with reference to statistical evidence and the statistical processes used
* identifying the purpose of the report

For example, the learner:* identifies the type of survey method and comments on the response rate with specific reference to the data provided in the report
* comments on the effectiveness of an aspect of the survey method with respect to the survey purpose of the survey
* identifies and discusses the sampling method with reference to a practical aspect of obtaining relevant data that is required to meet the purpose of the survey
* identifies how the survey results are presented and comments on how effective this is in terms of providing information
* makes specific reference to examples in the report that link summary comments with data presentation.
* supporting the comments on findings with reference to statistical evidence and the statistical processes used

For example, the learner:* identifies the report’s stated conclusion and makes relevant comments on how accurate it is
* supports comments with specific references to displays or summary comments in the report.

*The examples above are indicative of the evidence that is required.* | The learner evaluates a statistically based report, with statistical insight, by:* integrating statistical and contextual information to assess the quality of the report in terms of its purpose

For example, the learner:* identifies the purpose of the survey and type of survey method, and comments on the response rate, with specific reference to the data provided in the report
* identifies any limitations of the response rate, and the impact of these on the findings is discussed
* discusses the effectiveness of an aspect of the survey method and how the aspect could be improved
* identifies and discusses the sampling method, with reference to practical aspects of obtaining relevant data that is required to meet the purpose of the survey
* identifies potential sources of bias and suggests how these could be avoided
* identifies how the results of the survey are presented and comments on how effective this is in terms of providing information
* specifically refers to examples in the report that link summary comments with data presentations, identifies any inconsistencies between these, and suggests improved approaches
* identifies questions that are potentially ‘leading’ and suggests improvements
* considers improved presentation techniques
* identifies the report’s stated conclusion and makes a relevant comment on how accurate it is
* refers to examples that support and examples that do not clearly support the conclusion
* links discussion about question structures and data presentations to the conclusion, and considers limitations and possible improvements.

*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.