

## Achievement Standard

<b>Subject Reference</b>	Mathematics and Statistics 2.11		
<b>Title</b>	Evaluate a statistically based report		
<b>Level</b>	2	<b>Credits</b>	2
		<b>Assessment</b>	Internal
<b>Subfield</b>	Statistics and Probability		
<b>Domain</b>	Statistics		
<b>Status</b>	Registered	<b>Status date</b>	19 November 2015
<b>Planned review date</b>	31 December 2019	<b>Date version published</b>	19 November 2015

This achievement standard involves evaluating a statistically based report.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Evaluate a statistically based report.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate a statistically based report, with justification.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate a statistically based report, with statistical insight.</li> </ul>

### Explanatory Notes

- 1 This achievement standard is derived from Level 7 of *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007; and is related to the achievement objective

- evaluate statistically based reports:
  - identifying sampling and possible non-sampling errors in surveys, including polls

in the Statistics strand of the Mathematics and Statistics Learning Area. It is also related to the material in the *Teaching and Learning Guide for Mathematics and Statistics*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>.

This standard is also derived from *Te Marautanga o Aotearoa*. For details of the *Marautanga* achievement objectives to which this standard relates, see the [Māori version](#) of the standard.

- 2 *Evaluate a statistically based report* involves identifying and commenting on features and findings of a survey relevant to the report's purpose.

*Evaluate a statistically based report, with justification* involves supporting the comments on the features and findings with reference to statistical evidence and the statistical processes used to carry out the survey.

*Evaluate a statistically based report, with statistical insight* involves integrating statistical and contextual information to assess the quality of the report in terms of its purpose.

- 3 Features of a survey include:
    - population measures and variables
    - sampling methods
    - survey methods
    - sampling and possible non-sampling errors
    - sample size.
  - 4 Conditions of Assessment related to this achievement standard can be found at [www.tki.org.nz/e/community/ncea/conditions-assessment.php](http://www.tki.org.nz/e/community/ncea/conditions-assessment.php).
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### Quality Assurance

- 1 Providers and Industry Training Organisations must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Organisations with consent to assess and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference

0233

## Paerewa Paetae

Aronga	Pāngarau 2.11				
Ingoa	Te arotake i te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae				
Kaupae	2	Whiwhinga	2	Aromatawai	Ā-roto
Marau akoranga	Te Marautanga o Aotearoa				
Kokonga akoranga	Pāngarau				
Mana rēhita	Kua rēhitatia	Te rā i mana ai	19 Whiringa-ā-rangi 2015		
Te rā e arotakengia ai	31 Hakihea 2018	Te rā i puta ai	19 Whiringa-ā-rangi 2015		

### Te Hononga ki te Marautanga

I ahu mai tēnei paerewa paetae i te Taumata 7 o *Te Marautanga o Aotearoa*, i whakaputaina e Te Pou Taki Kōrero i te tau 2008.

### Whāinga Paetae

*Te Tauanga, Te Tūhuratanga Tauanga*

1 *Ka whai i ngā tikanga mō te tūhuratanga tauanga:*

- *ka arotake i te āhua o te ine i ngā taurangi, te tukanga whai tīpako, te tukanga kohikohi raraunga hoki.*

*Te Tauanga, Te Aroā Tauanga*

3 *Ka arotake i ngā pūrongo tauanga:*

- *ka tautohu i ngā hapa tīpako me ngā hapa kē atu ka hua mai i ngā rangahau me ngā pōti.*

E hono ana ki te Papa Whakaako mō te Pāngarau kei te pae tukutuku nei:

<http://tmoa.tki.org.nz/Te-Marautanga-o-Aotearoa/Taumata-Matauranga-a-Motu-Ka-Taea>.

### Te Hononga ki *The New Zealand Curriculum* (NZC)

I ahu mai hoki tēnei paerewa paetae i *The New Zealand Curriculum*. Mō ngā kōrero e pā ana ki ngā whāinga paetae o te NZC e hāngai ana ki tēnei paerewa, tirohia te [putanga reo Pākehā](#) o te paerewa.

### Te Hononga ki ngā Tikanga Aromatawai

Arā ngā Tikanga Aromatawai mō tēnei paerewa paetae, kei te:

<http://tmoa.tki.org.nz/Te-Marautanga-o-Aotearoa/Taumata-Matauranga-a-Motu-Ka-Taea>.

**Paerewa Paetae**

<p><b>Paetae</b> Te arotake i te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae.</p>	<p>Hei tohu i te paetae:</p> <ul style="list-style-type: none"> <li>• Ka tautohu i ngā wāhanga o te pūrongo tauanga.</li> <li>• Ka whakaputa kōrero e whakamārama ana i ngā hua i puta i te pūrongo tauanga i runga anō i te āhua o ōna whāinga.</li> </ul>
<p><b>Kaiaka</b> He kaiaka te arotake i te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae.</p>	<p>Hei tohu i te kaiaka:</p> <ul style="list-style-type: none"> <li>• Ko te mea nui i konei, ko te parahau i ngā wāhanga o te pūrongo tauanga. Nō reira, ka kitea ēnei: <ul style="list-style-type: none"> <li>– ka tūhono i te mātauranga tauanga me te mārama ki ngā wāhanga katoa o te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae ina whakaritea ki ōna whāinga</li> <li>– ka whakaputa kōrero taunaki e whakamārama ana i ngā painga me ngā ngoikoretanga o te pūrongo tauanga mō te wāhi ki ngā tukanga tīpako me ngā tukanga tirohanga tauanga whānui.</li> </ul> </li> </ul>
<p><b>Kairangi</b> He kairangi te arotake i te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae.</p>	<p>Hei tohu i te kairangi:</p> <ul style="list-style-type: none"> <li>• Ko te mea nui i konei, ko te whakaatu aroā tauanga hōhonu. Arā, ka kōtuitui i te mātauranga tauanga me te mārama ki ngā wāhanga katoa o te pūrongo tauanga hei tautohu i te whaihua o ngā whakapae ina whakaritea ki ōna whāinga.</li> </ul>

**Kōrero Āpiti**

Kia taunga te ākonga ki ngā tikanga o te arotake i te pūrongo tauanga:

- te taupori me ngā taurangi
- te tukanga tīpako
- te tukanga tirohanga tauanga
- te tautohu i ngā hapa tīpako me ngā hapa kē atu ka hua mai i ngā rangahau
- te rahi o te tīpako.

Kuputaka:

aroā tauanga hōhonu

statistical insight

kōtuitui

integrate, connect

parahau

justify

**Tātari Kounga**

- 1 Me mātua whakamana ngā Kaituku Akoranga me ngā Whakahaere Whakangungu Ahumahi e te Mana Tohu Mātauranga o Aotearoa ka rēhita ai i ngā hua ka puta mai i ngā aromatawai ki ngā paerewa paetae.
- 2 Ko ngā Kaituku Akoranga me ngā Whakahaere Whakangungu Ahumahi kua mana, ā, e aromatawai ana i ā rātou hōtaka ki ngā paerewa paetae, me uru rātou ki ngā pūnaha whakaōrite e tika ana mō aua paerewa paetae.

Ko te tohutoro ki te Mahere Whakamana, Whakaōritenga hoki

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