

Achievement Standard

Subject Reference	Mathematics and Statistics 2.8		
Title	Design a questionnaire		
Level	2	Credits	3
		Assessment	Internal
Subfield	Statistics and Probability		
Domain	Statistics		
Status	Registered	Status date	19 November 2015
Planned review date	31 December 2018	Date version published	19 November 2015

This achievement standard involves designing a questionnaire.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Design a questionnaire. 	<ul style="list-style-type: none"> Design a questionnaire, with justification. 	<ul style="list-style-type: none"> Design a questionnaire, with statistical insight.

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

- carry out investigations of phenomena, using the statistical enquiry cycle:
 - conducting surveys
 - evaluating the choice of measures for variables and data collection methods used
 - using relevant contextual knowledge

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 *Design a questionnaire* involves showing evidence of using each component of the questionnaire design process.

Design a questionnaire, with justification involves linking components of the questionnaire design process to the context and explaining relevant decisions made in the design process.

Design a questionnaire, with statistical insight involves integrating statistical and contextual knowledge relevant to the purpose of the survey throughout the design process.

- 3 The components of the questionnaire design process involve:
 - clarifying the specific information needs of the survey and the groups who will use the data
 - posing survey questions, considering sources of variation by
 - determining relevant variables
 - determining appropriate measures for each variable
 - using an appropriate range of question types
 - checking the survey questions by
 - carrying out a desk review
 - conducting a pilot survey(s) including collecting and recording data
 - refining the questionnaire based on the results of the pilot survey
 - documenting the design process including the draft and final questionnaire.
 - 4 Conditions of Assessment related to this achievement standard can be found at www.tki.org.nz/e/community/ncea/conditions-assessment.php.
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Replacement Information

This achievement standard replaced unit standard 12333.

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 2.8		
Ingoa	Te waihanga i te uiui pāngarau		
Kaupae	2	Whiwhinga	3
		Aromatawai	Ā-rotō
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	8 Hakihea 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 whakahaere tirohanga tauanga mā te whakamahi tikanga tīpako matapōkere, tikanga whakamātau rānei, ka whakamahi rānei i ngā huinga raraunga kua oti kē te kōhi mai;*
- *ka arotake i te āhua o te ine i ngā taurangi, te tukanga whai tīpako, te tukanga kohikohi raraunga hoki;*
- *ka whakamahi mōhiotanga e pā ana ki te horopaki o te tūhuratanga, te tātaritanga raraunga torotoro me te hīkaro tauanga.*

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-Mataurangi-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-Mataurangi-a-Motu-Ka-Taea>.

Paerewa Paetae

<p>Paetae Te waihanga i te uiui pāngarau.</p>	<p>Hei tohu i te paetae:</p> <ul style="list-style-type: none"> • Ka whakamahi i ngā wāhanga o te tukanga waihanga uiui.
<p>Kaiaka He kaiaka te waihanga i te uiui pāngarau.</p>	<p>Hei tohu i te kaiaka:</p> <ul style="list-style-type: none"> • Ko te mea nui i konei, ko te parahau i ngā wāhanga katoa o ngā tikanga waihanga uiui pāngarau. Nō reira, ka kitea ēnei: <ul style="list-style-type: none"> – ka tūhono i ngā wāhanga katoa o te tukanga waihanga uiui pāngarau ki te horopaki – ka arohaehae i te tukanga waihanga uiui pāngarau me ngā whakamārama e hāngai ana – ka whakamārama i ngā taunaki i ngā wāhanga katoa o te tukanga waihanga uiui pāngarau.
<p>Kairangi He kairangi te waihanga i te uiui pāngarau.</p>	<p>Hei tohu i te kairangi:</p> <ul style="list-style-type: none"> • Ko te mea nui i konei, ko te whakaatu aroā tauanga hōhonu ki ngā tikanga waihanga uiui pāngarau. Arā, kia kotahi, nui ake rānei o ēnei: <ul style="list-style-type: none"> – ka kōtuitui i ngā wāhanga katoa o te tukanga waihanga uiui pāngarau ki te horopaki – ka arohaehae i te tukanga waihanga uiui pāngarau me ngā whakamārama e hāngai ana ki tōna whanaketanga – ka whakaatu aroā tauanga hōhonu hei whakamārama i ngā taunaki i ngā wāhanga katoa o te tukanga waihanga uiui pāngarau.

Kōrero Āpiti

Kia taunga te ākongā ki ngā tikanga o te waihanga uiui pāngarau:

- te whakamārama i ngā whāinga o te uiui pāngarau me te hunga ka whakamahi i tōna huinga raraunga
- te waihanga i ngā pātai o te uiui pāngarau me te mōhio anō hoki ki:
 - te whiriwhiri i ngā taurangi me ngā tātaitanga tauanga e hāngai ana
 - ngā waeine e tika ana hei ine i ngā taurangi
 - ngā tūmomo pātai katoa e taea ana te whakamahi
- te arotake ā-rōpū i te āhua o ngā pātai, o te ine i ngā taurangi, te tukanga whai tīpako, te tukanga kohikohi raraunga hoki, mā te:
 - āta wetewete i ngā pātai
 - whakahaere i tētahi tirohanga tauanga whakaharatau hei whakamātau i te uiui pāngarau, arā ko te kohi i ngā raraunga, ko te whiriwhiri me te whakamahi anō hoki i ngā whakaari raraunga e hāngai ana
- te tuhi i ngā wāhanga katoa o te tukanga waihanga uiui pāngarau – mā te hua o te tirohanga tauanga whakaharatau e whakaatu ai i te whanaketanga o te uiui pāngarau mai i te tuhinga hukihuki ki te tuhinga whakamutunga.

Kuputaka:
aroā tauanga hōhonu statistical insight
kōtuitui integrate, connect
parahau justify

He Kōrero mō te Whakakapi

Koinei hei whakakapi i te paerewa 12333.

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 0233