**Technical Report # 44**

# Summary of the Teacher Feedback from the Calibration of the asTTle V3 Pāngarau Assessments

Abstract: This report details the summary of the teacher feedback from the calibration (trials) of the asTTle V3 pāngarau assessments. It has been modeled on earlier reports describing lessons learned from the trialling of English assessments in reading, mathematics, and writing. The overall teacher response to the asTTle pāngarau trial was positive and many students enjoyed undertaking the trial papers. Teachers' major areas of concern included item difficulty and vocabulary within each trial paper.

**Submitted by the Assessment Tools for Teaching and Learning team,**

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**Assessments**

This report details the summary of the teacher feedback from the calibration (trials) of the asTTle V3 pāngarau assessments. It has been modeled on earlier reports describing lessons learned from the trialling of English assessments in reading, mathematics, and writing. The overall teacher response to the asTTle pāngarau trial was positive and many students enjoyed undertaking the trial papers. Teachers' major areas of concern included item difficulty and vocabulary within each trial paper.

I would like to thank all the students and teachers in Māori-medium schools who took time to complete asTTle tasks and provide feedback to the University of Auckland team.

Peter Keegan drafted this report based on data summarized and collated by Ana Pipi. Both made a tremendous contribution to the writing, reviewing, and trialling of the assessment tasks which are evaluated herein.

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This report summarises the teacher feedback from the calibration (trial) of the asTTle V3 pāngarau assessments held in June 2003.

**The asTTle Project**

The Assessment Tools for Teaching and Learning (asTTle) '*He Pūnaha Aromatawai mō te Whakaako me te Ako*' project delivered in February 2003 a computer based set of tools for classroom, teacher-controlled assessment of student progress in literacy and numeracy at Levels 2 – 4 of the New Zealand curriculum in both Te Reo Māori and English. Specifically, this includes Pānui, Tuhituhi, Pāngarau, Reading, Writing, and Mathematics. asTTle is designed to be used as a classroom assessment by teachers. In 2003/2004 the asTTle tool is being extended to include curriculum levels 5 and 6 in both numeracy and literacy.

The asTTle tools provide teachers with the ability to track progress and achievement of individual students or groups/subgroups of students. Teachers design an asTTle test by selecting the curriculum areas and levels of difficulty that they wish to assess. These selections are maximised by the asTTle tool to create a 40-minute pencil and paper test consisting of a mixture of open- and closed-response items. Once student responses and scores are entered into the asTTle tool, teachers may select a range of reports that allow them to interpret student performance by reference to nationally representative norms, curriculum levels, and curriculum achievement objectives. Specifically, asTTle answers questions

related to (a) how well are students doing compared to similar students, (b) how well are students doing on important achievement objectives, (c) how well students are doing compared to curriculum achievement levels, and (d) what are some teaching resources that would assist in improving students' performance.

**Methodology**

The pāngarau assessment materials for the V3 trial were developed by the asTTle item writing team according to specifications derived from the Pāngarau curriculum map (Christensen, Trinick, & Keegan, 2003). The items were reviewed by practicising secondary and primary school pāngarau teachers attending a workshop held in Auckland, April 2003. Once reviewed, items were assembled into trial papers estimated to require 40 minutes for the majority of students. In addition to creating new pāngarau materials for levels 5 and 6, further level 2, 3, and 4 items were created, reviewed, and trialled or calibrated to extend the existing bank of assessment items.

A total of 13 pāngarau papers were trialled (one each at Years 4—6; two each at Years 7—10; and two covering Years 11—12 combined). Papers for Years 4 to 8 had items or tasks across Curriculum Levels 2 to 4 with the number of higher level tasks incrementing with year; while papers for Years 9—12 followed a similar pattern of increasingly more items from the higher levels of 4 to 6 as year increased. The trial papers had sufficient items in common so that new items could be compared to each other and to items already published in asTTle V2.

One of the major goals of the V3 trial was to develop and establish norms for Level 5—6 pāngarau assessment items. The number of students potentially working at those levels is of concern. The population of students in Years 8 to 13 in Level 1 immersion education (81—100% of time in Māori) as at 1 July 2002 is presented in Table 1. Clearly there are few students being taught Level 5—6 pāngarau.

Table 1
Number of Enrolments in Māori-Medium Students (Years 8 to 13) Learning Level One - July 2002

| Level 1 Immersion | Year of Schooling 2002 | | | | | |
|---|---|---|---|---|---|---|
| (81-100%) | year 8 | year 9 | year 10 | year 11 | year 12 | year 13+ |
| Total Students | 1226 | 984 | 353 | 250 | 130 | 80 |

The test papers, as administered, were balanced in quite a different fashion to the asTTle computer tool which allows teachers to custom select the difficulty desired regardless of the year or age of students.  For example, a teacher using asTTle can create a test with no or few hard items for a younger or less able group of students and vice versa.  It is important to note that all items in the various papers were in Māori only.

The test papers were administered on behalf of asTTle by teachers with classes of students learning pāngarau in Māori-medium schools.  These included both kura kaupapa Māori, bilingual/immersion schools, and schools with bilingual/immersion units or classes.  There are about 2,500 students in Māori-medium instruction in each of Years 4—7; with decreasing numbers in the upper secondary school as outlined in Table 1.  Papers were administered by teachers with their own class of students in June 2003.

Each teacher who administered the tests was asked to complete a questionnaire (in English) to provide evaluative feedback around the quality of the items, specifically their appropriateness in terms of interest or engagement, difficulty, length of time needed to complete, and around the quality of the instructions supplied with the test forms.  In addition, teachers were asked for their own general comments, and were asked to summarise the nature of students' experience and evaluation of the materials.  The teacher feedback is used to identify potential modifications to the asTTle pāngarau assessment materials or instructions.

**Results**
Eighty-six schools participated in the calibration.  Seventy-nine schools returned questionnaire responses.  On some occasions more than one teacher from the same school answered the questions.  Some papers were trialled by students either a year below or a year

above the target year level, while a small number of students in years 8 to 12 completed two trial papers. The total number of student scripts received was 2,576 out of 4,000 delivered to schools.

Responses were in the nature of comments to prepared questions. The comments were generally coded using a "Yes", "No", "Both yes and no", or "No answer". The category "Yes" indicates a favourable or positive response to the question, a "No" an unfavourable or negative response to the question, and "Both yes and no" indicates a response that contains both positive and negative comments. "No answer" includes comments that were incapable of meaningful interpretation. Although the questionnaires were written in English many teachers provided written comments in Māori or used a combination of Māori and English.

*Content Appropriateness*

This section asked whether the content was appropriate for students' age and ability in the teacher's class. The results are presented in Table 2. Over two-thirds of teachers were quite positive about the content.

Table 2
*Appropriateness of Content*

| Teacher | Type of Response | | | | |
|---|---|---|---|---|---|
| | Yes | No | Both | No Answer | Total |
| Number | 54 | 5 | 17 | 3 | 79 |
| (Percent) | (68.4) | (6.3) | (21.5) | (3.8) | |

While many teachers simply gave a 'yes' response to this question others provided extra comments. Table 3 summarises the number and type of additional comments on content appropriateness. The most common additional teacher comment (17 reports) was that some students found the items appropriate, while others did not. This point was often qualified by other comments listed, that is noting difficulties with vocabulary, language, understanding items, and encountering content not yet covered.

Table 3.
*Additional Comments on Content Appropriateness*

| Comment | Number of Teacher Responses |
|---|---|
| Positive | |
|   good topics | 5 |
|   enjoyed, fun, interesting, *tino pai* 'good' | 5 |
|   wide range, good coverage | 4 |
|   Challenging | 1 |
| | |
| Neutral | |
|   Mixed reactions, some students OK, others not | 17 |
| | |
| Negative | |
|   content not yet covered | 9 |
|   language too difficult | 7 |
|   too (some questions) hard | 7 |
|   vocabulary new, difficult or unknown | 6 |
|   student language insufficient | 5 |
|   initially apprehensive, *mataku* 'afraid', nervous | 5 |
|   short time | 3 |
|   difficulty understanding item(s) | 2 |

*Level of Difficulty*

This section asked whether the level of difficulty was appropriate for students' age and ability. Two-thirds of teacher reports were positive (Table 4). Nine teachers provide additioanl comments noting that some items were too hard for the students. Four teachers commented that students had difficulty understanding the items.

Table 4
*Level of Difficulty*

| Teacher | Category of Response | | | | |
|---|---|---|---|---|---|
| | Yes | No | Both | No Answer | Total |
| Number | 53 | 8 | 10 | 8 | 79 |
| (Percent) | (67.1) | (10.1) | (12.7) | (10.1) | |

*Student Response*

This section asked about students' responses to asTTle pāngarau tasks. Teachers were reasonably closely divided in their reports on students responses being positive, negative and both (Table 5).

Table 5
*Student Response*

| Teacher | Category of Response | | | | |
|---|---|---|---|---|---|
| | Yes | No | Both | No Answer | Total |
| Number | 24 | 27 | 24 | 4 | 79 |
| (Percent) | (30.4) | (34.2) | (30.4) | (5.1) | |

The teachers provided many additional comments on students' responses to the tasks. The most common 'negative' comment was that students had difficulty understanding items (21 responses), followed by comments on vocabulary being new or unknown (18 responses). Seventeen teachers reported that some questions were too hard for their students and ten reported that students found the language too difficult. Table 6 presents the additional comments regarding student responses.

Table 6
*Additional Comments on Student Responses*

| Comment | Number |
|---|---|
| Positive | |
|    Challenging | 7 |
|    enjoyed, fun, interesting, *tino pai* 'good' | 7 |
|    wide range, good coverage | 3 |
|    good topics | 1 |
| | |
| Neutral | |
|    mixed reactions, some students OK, others not | 10 |
| | |
| Negative | |
|    difficulty understanding item(s) | 21 |
|    vocabulary new, difficult or unknown | 18 |
|    too (some questions) hard | 17 |
|    language too difficult | 10 |
|    initially apprehensive, *mataku* 'afraid', nervous | 9 |
|    content not yet covered | 5 |
|    short time | 3 |
|    student language insufficient | 2 |
|    student(s) did not like task | 2 |
|    difficulty understanding instructions | 1 |
|    too easy (questions) | 1 |

*Teacher Instructions*

This section asked whether the administration instructions were clear and sufficient. All the administration instructions were in English. Overall, teachers were very positive about the instructions. The results are presented in Table 7.

Table 7
*Teacher Instructions*

| Teacher | Category of Response | | | | |
| --- | --- | --- | --- | --- | --- |
| | Yes | No | Both | No Answer | Total |
| Number | 56 | 2 | 9 | 12 | 79 |
| (Percent) | (70.9) | (2.5) | (11.4) | (15.2) | |

Nine teachers commented additionally that they had to give additional oral instructions to their students to ensure that they clearly understood the tasks.

*Item Issues*

This section asked teachers whether there were any any items that they believed were faulty (e.g., no correct answer, ambiguous, etc.). Twenty-eight teachers reported problems with some of the items. Eighteen teachers noted particular items that had errors, were ambiguous or unclear, had unknown words, had typographical errors, or were overly-difficult items. Other teachers gave overall comments about the language in various trial papers. This feedback was used by project asTTle to refine scoring procedures, item accuracy, or language of items being published in asTTle V3.

*Concluding Comments*

Few concluding comments were provided by teachers. Many teachers expressed their thanks and noted that the trial had been a valuable experience. Some also commented that they were interested in seeing the student results. Several teachers reported that the trials highlighted areas that needed to be given further attention in their own classroom. Issues of concern again included vocabulary issues, item difficulty, that some students found the tasks very difficult, or that students had not yet covered some of the material.

Several teachers suggested that the students should be given more time for the tasks. Suggestions for improvements pointed to earlier notice of the trial, possible selection of an alternative time in the year for the administration of the trial papers, and a clarification of the consent process. Some teachers requested vocabulary lists of terms used in the items.

**Conclusion**

The overall teacher response to the asTTle pāngarau trial was positive and many students enjoyed undertaking the trial papers. Teachers' major areas of concern included item difficulty and vocabulary within each trial paper. While conclusive explanations are difficult to be derived from this type of research, some known factors may be responsible for this type of concern. Students who had not yet covered the content in the trial papers by the end of the second term when asTTle pāngarau items were trialled may have found items designed to assess the full range of curriculum levels 5 and 6 difficult. There is some anecdotal evidence that classroom pāngarau vocabulary is not consistent through out Māori-medium programmes in New Zealand (Keegan, 2000) and thus students may not be getting exposure to the language expected of curriculum levels 5 and 6. Also, it is worth noting that all asTTle pāngarau items were written using terminology derived from the Pāngarau Curriculum (Ministry of Education, 1996). Further, all items were reviewed by teachers to ensure that they were appropriate to the intended curriculum level and that the language was consistent with the curriculum document. Thus, it is possible that the level and quality of pāngarau being taught and learned in Years 8—12 is not consistent with the curriculum expectations of levels 5—6. Nevertheless, given that teachers will be able to control difficulty and content with the asTTle application, it is considered that these concerns will be reduced once teachers design their own tests for curriculum levels 5—6.

It is argued from this feedback that, according to pāngarau teachers, the asTTle pāngarau materials are appropriate and robust enough for the assessment of student learning in curriculum levels 2 to 6.

**References**

Christensen. I., Trinick, T., & Keegan, P.J. (2003, June). *Pāngarau curriculum framework and map: Levels 2—6.* asTTle Technical Report 38, University of Auckland/Ministry of Education.

Keegan, P.J. (2000). Recent lexical expansion in Māori: Some implications for Māori-medium classrooms. *New Zealand Studies in Applied Linguistics, 6*, 53-66.

Ministry of Education. (1996a). *Pāngarau i roto i te marautanga o Aotearoa.* Te Whanganui ā Tara: Te Pou Taki Kōrero.