

Secondary Technology newsletter

For leaders of technology in secondary schools in the Central North region | Term 3 | July 2012

Tena koutou,

Welcome to the third term. I hope everyone had a relaxing, refreshing and enjoyable break.

Raising the achievement of Māori learners

Raising the achievement of Māori learners is a priority of the current government. Starting on page two of this newsletter is a feature on this topic and some possible strategies for technology teachers to focus on raising the achievement of Māori learners.

NCEA jumbo days

Technology workshops are being offered at the teacher only days happening in Gisborne and Hawkes Bay this term. There are four technology workshops for teachers to choose from. Teachers in these regions will be receiving further information about the day.

Technology cluster meetings

Technology cluster meetings will be held around the region in the first half of this term (except in those areas holding a teacher only day where there is a NCEA jumbo day). The focus of these cluster meetings will be NCEA Levels 2 and 3. The blue box to the right has dates and other details for these cluster meetings.

Literacy and language in technology education

A new PLD initiative starts this term "Raising student achievement in technology education by focusing on literacy and language". Teachers who expressed an interest in being involved in this professional development will be receiving further information shortly.

Key messages on the newly aligned standards

A new section on Techlink contains key messages about the newly aligned technology achievement standards. See www.techlink.org.nz/curriculum-support/Teacher-Education/In-service/PD-support/Senior-Secondary/Key-Messages/Index.htm

Email database

Please help me keep my email database of technology leaders and teachers up to date. Any additions or changes please let me know.

All the best for a busy term.

Nga mihi,

Malcolm Howard

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Secondary Student Achievement Contract

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Term three dates

Technology cluster meetings or NCEA workshops will be held throughout the Central North region in the first half of term three. Dates are:

Gisborne and East Coast

NCEA – Teacher only days

Monday 30th July and

Friday 24th August

Gisborne

Hawkes Bay

NCEA workshop - Teacher only day

Friday 17th August

Napier

Central Plateau

Technology cluster meeting

Wednesday 1st August

Taupo

Bay of Plenty

Technology cluster meeting

Tuesday 14th August

Tauranga

Waikato

Technology cluster meeting

Tuesday 21st August

Hamilton

Hauraki and Coromandel

Technology cluster meeting

Wednesday 29th August

Paeroa

The NCEA workshops in Gisborne and Hawkes Bay are being organized by the local Principals' Association and venue information and the process for registering will be communicated through your school management team.

For the technology cluster meetings a separate flyer has been sent to each region. This flyer contains programme details, venues, times and the registration process.

Raising the achievement of Māori students

Introduction

Māori students' educational success is critical to Aotearoa New Zealand's success. What are we doing within technology education to contribute towards that goal?

Ka Hikitia

Ka Hikitia: Managing for Success//Māori Education Strategy 2008-2012 sets out the Ministry of Education's approach to achieving educational success for and with Māori.

How does your department measure up?

As part of Ka Hikitia the government has targets for the achievement of Māori learners.

Percentage of Māori learners...	Current (2011)	1 year (2012)	2 year (2013)	5 year (2016)
Leaving school with NCEA Level 2 or better	48	51	53	65
Leave school with a university entrance standard	20	21	22	26

Source: <http://www.minedu.govt.nz/theMinistry/PolicyAndStrategy/KaHikitia/MidTermReview.aspx>

A good starting place to address what your department or faculty is doing for Māori learners would be to look at the data for Māori students in your faculty and compare the data with these targets.

The Te Kotahitanga Effective Teaching Profile

Relationships and interactions between teachers and students in the classroom are key to effective teaching of Māori students. Effective teachers take a positive, nondeficit view of Māori students, and see themselves as capable of making a difference for them.

Effective interactions rely on:

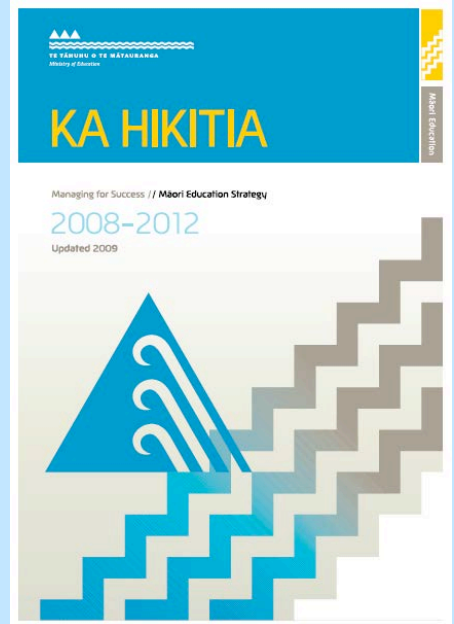
- Manaakitanga: Caring for students as Māori (and acknowledging their mana)
- Mana motuhake: Caring for the performance of Māori students (having high expectations)
- Ngā whakapiringatanga: Creating a secure, well-managed learning environment (managing the classroom to promote learning)
- Wānanga: Engaging in effective learning interactions with Māori students (using a range of dynamic, interactive teaching styles)
- Ako: Using a range of teaching strategies (to learn as well as teach)
- Kotahitanga: Using student progress to inform future teaching practices (teachers and students reflecting together on student achievement in order to move forward collaboratively).

From *The Te Kotahitanga Effective Teaching Profile* by Russel Bishop and Mere Berryman published in Set 2 2009 (see the link in the blue box to the right)

Resources and links

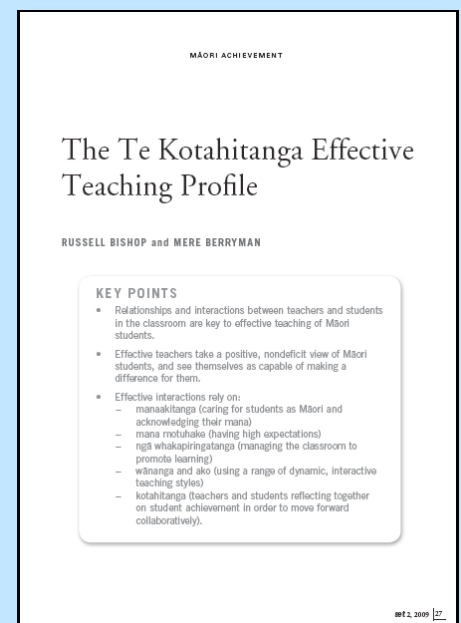
Ka Hikitia

The Ministry of Education publication *Ka Hikitia: Managing for Success//Māori Education Strategy 2008-2012*



Available at
<http://www.minedu.govt.nz/theMinistry/PolicyAndStrategy/KaHikitia.aspx>

The Te Kotahitanga Effective Teaching Profile



Available at
<http://www.nzcer.org.nz/nzcerpress/set/articles/te-kotahitanga-effective-teaching-profile>

Raising the achievement of Māori students continued...

Tātaiako

The Ministry of Education publication *Tātaiako: Cultural Competencies for Teachers of Māori Learners* is a new resource explaining the progression of the competencies teachers need to develop so they can help Māori learners achieve educationally as Māori.

Tātaiako sets out five competencies which are:

- Wānanga: participating with learners and communities in robust dialogue for the benefit of Māori learners' achievement.
- Whanaungatanga: actively engaging in respectful working relationships with Māori learners, parents and whānau, hapu, iwi and the Māori community.
- Manaakitanga: showing integrity, sincerity, and respect towards Māori beliefs, language and culture.
- Tangata Whenuatanga: affirming Māori learners as Māori. Providing contexts for learning where the language, identity, and culture of Māori learners and their whānau is affirmed.
- Ako: taking responsibility for their own learning and that of Māori learners.

What is a culturally competent teacher?

It could be a very worthwhile exercise as a technology faculty or department to discuss the competencies set out in Tātaiako and the The Te Kotahitanga Effective Teaching Profile and use it to challenge our perceptions of what it means to be a culturally competent teacher.

Discuss with your department questions such as:

- What is a culturally competent teacher?
- Is the teaching in my class/ our kura/ school effective for Māori learners?
- How are the language and cultural practices in my class/ department/school/kura respectful of Māori culture, language and values?

Culturally competent teachers are able to use the learner's culture(s) as a building block to learn and teach. They understand how to utilise the learner's culture(s) to aid the teaching and learning process, as well as to facilitate relationships and professional growth. Culturally competent teachers get to know the learner and work to ensure that the learning environment, learning partnerships and learning discussions acknowledge and respect the learner's culture(s).

Alignment of Tātaiako with the registered teacher criteria

The NZ Teachers Council has a resource showing the alignment of the five competencies in Tātaiako with the registered teacher criteria. The material is intended to generate discussion and thinking about what it means to be a culturally competent teacher. In addition there are tables that show links between each criteria in the Registered Teacher Criteria and the Cultural Competencies Framework for Teachers of Māori Learners.

Resources and links

Tātaiako

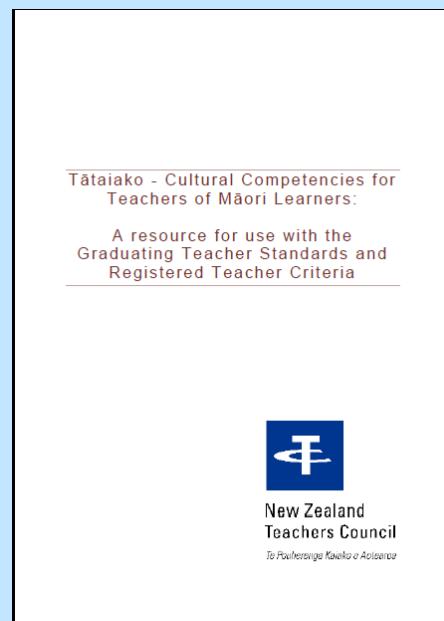
The Ministry of Education publication *Tātaiako: Cultural Competencies for Teachers of Māori Learners*



Available at

www.minedu.govt.nz/theMinistry/EducationInitiatives/Tataiako.aspx

Tātaiako and the registered teacher criteria



Available at

<http://www.teacherscouncil.govt.nz/required/tataiako.stm>

New UE requirements

Technology is an approved subject for university entrance. A year 13 Technology course in a school will need to use at least 14 credits from the Technology matrix to qualify as a UE subject. The requirement for externals applies for courses for endorsement only. The course can have credits from outside the matrix but these credits will not count for this one UE subject pass. The first 14 candidate achieved credits, in the Tech matrix, will be counted as one course which will be a Subject for the purposes of UE, the next 14 credits, in the Tech matrix, will be counted as a Subject for the purposes of UE, the next 14 credits, in the Tech matrix, will be counted as a Subject for the purposes of UE, and so on. So a candidate could easily do Generic Tech, DVC, and Digital and get their required 3 'Subject' passes.

SC2012/002 [New Zealand Scholarship Subject List for 2013](#)

Changes to the Optional Teacher-selected evidence (OTSE) moderation process

Teachers can now ask NZQA moderators of secondary assessment systems specific questions about **task design** in addition to raising specific questions about interpreting standards and judging student work. The OTSE process should not be used to verify teacher marking or to pre-moderate assessment tasks. Questions can relate to up to ten samples of student work: either those randomly selected or additional samples selected by the teacher. See [Sample questions for Optional Teacher-selected evidence](#).

The OTSE material can be sent at any time of year, or with the school moderation submission. If sent with the school moderation submission, moderator feedback will occur separately and it will not be included in the moderation report. There is no specific turn around time for OTSE material as this depends on moderator capacity. More information can be found at:

<http://www.nzqa.govt.nz/about-us/publications/newsletters-and-circulars/secqual/changes-to-the-optional-teacher-selected-evidence/>

An example of the type of questions answer is: How long do we need to keep student work for a standard we are no longer offering? Answer: Keep assessment materials and randomly selected student work for one more year in case it is selected for moderation

Further guidance can be found at [Guidelines for the Selection of Student Work for Moderation \(PDF, 51KB\)](#)

<http://www.nzqa.govt.nz/providers-partners/assessment-and-moderation/managing-national-assessment-in-schools/managing-internal-assessment/external-moderation/teacher-selected-evidence/>

Level 3 Technology: Draft achievement standards and assessment resources

Published on TKi in June. On the link below you will find the school planning drafts of the Level 3 standards developed to align with The New Zealand Curriculum (2007) and the draft internal and external assessment resources, which may be used for planning purposes. <http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology/Level-3-Technology>

Useful links and resources

Fashion

This is a useful website for viewing fashion through the viewing of paintings. section covers fashion history from the 15th century through to the late 19th century. The images here are generally portraits and details from other works of art <http://www.eupedia.com/gallery/g547-european-fashion-history.html>

Lots of free resources and links to good textile/fashion websites. <http://teachersunderground.co.uk/Textiles/Textiles.html>

Sewing tutorials pattern alterations

Links to sewing tutorials on the internet.



<http://sewingtutorials.blogspot.co.nz/2008/05/pattern-alterations.html>

September Exhibition

The New Zealand Fashion Museum's upcoming project - **Home Sewn** which will be both an exhibition and a publication. The exhibition will open in the Britomart precinct in **Auckland in September** this year and will then travel to other centres - probably Wellington and Dunedin, with exact dates and venues to be confirmed. The publication is being produced in conjunction with Penguin books and includes a brief history of home sewing in NZ, as well as a pattern from each of 10 NZ designers to make at home plus a "how to" section.

Literacy: An example of a discussion

<http://www.webdesignerdepot.com/2010/05/architecture-vs-web-design/>

This article compared architecture and web design. While there are a lot of similarities, there are also tons of differences between these two areas of design. Most of these are directly related to the fact that web design deals primarily with virtual space, where architecture deals mostly with the real, physical world. A good exercise for students is to look outside their own area of technology to develop a deeper understanding of design principles. After all, there are a lot of similar rules and guidelines that permeate design, no matter what the field.



Technology Scholarship

A professional Learning page has been created on the following website for Scholarship Technology:

<http://www.gcsn.school.nz/learning-centre/professional-learning/tutorials/scholarship-technology-mentoring-teachers-and-studen>

This has general information, important links and the first Conference Video recording with a group of Christchurch students, teachers and the national Facilitator for Technology. Two more will be added later. This has been the initiative of John Creighton and Coralie Stopford for the Greater Christchurch Schools Network Trust.

Teachers Sharing

Jennifer Gottschalk has created a series of screencasts to help her students with the trialling / testing / consulting process. She is very happy to share her playlist (on YouTube). The videos are also available on Moodle (her schools CMS), which accounts for the relatively low 'view' rate (most students will watch the videos in class via Moodle and only use YouTube at home).

<http://www.youtube.com/playlist?list=PLDCA9E06DA1003865>

Thank you Jennifer. If any teachers have work they wish to share with Jennifer this would be a great way to reciprocate.

Useful links and resources

Leading: space is more important than words

A key component to any website design is type. Selecting fonts, sizes and colours can be a big part of how you outline your site. Just as important as the letterforms themselves, is the spacing around those letters and particularly the leading used in blocks of text.



The more type you use, the more important leading becomes. Behind font and size, it is one of the key factors to consider when you are looking at how readable type is.

Functional Modelling – Wire frames

Creating a wireframe is one of the first steps you should take before designing a website. A wireframe helps you organize and simplify the elements and content within a website and is an essential tool in the development process. A wireframe is basically a visual representation of content layout in a website design.



Further information and more about web design go to:

<http://www.webdesignerdepot.com>

Extract from DVC and Technology Moderators Newsletters

DVC Level 1 AS 91069, Version 2. The Importance of Evidence of Planning

Requires the student to promote an organised body of design work to an audience. To access this standard the student needs to go beyond just completing a design process and compiling a portfolio of work. From a body of design work the student should select aspects of the portfolio or collection they want to present to an audience. Work presented for this standard should show an element of planning to assist with the assessment of selecting features of an organised body of work required for achieved and/or purposeful selection and application of techniques required at merit and excellence levels. It is expected that elements of composition such as layout, rule of thirds, text hierarchy etc are apparent in this work and the level of presentation skills used, forms the basis for the step-ups to merit and excellence.

From Lesley Pearce; don't forget this achievement standard also allows students to gain Literacy credits so you would expect to see evidence of listening, speaking, reading and writing.

Read more: <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/graphics-dvc/moderator-s-newsletter/may-2012/>

Technology: Assessment schedule AS901044

Those of you luckily enough to attend a recent Best Practice Workshop you will be aware of the work Heather McIntyre and a fellow teacher did in creating an assessment rubric with examples to give students clear guidelines. An example for AS 901044 (1.1):

[91044 - Undertake brief development to address a need or opportunity \(PDF, 14KB\)](#)

Teachers Sharing

Thank you to Debbie Morrow for sharing this resource
"... after marking my level 2 students work I realised I really need to get them thinking more as the work many of them handed in is not the step up from level 1 they need to do. In my search of ways to help them I came across this cool website that has loads of software apps and ideas for each level of Blooms. It is in A3 so people would have to scale it down to A4 if that is the size they want to print it at."

<https://sites.google.com/site/bloomsapps/analyzing>



Useful links and resources

Ideas that changed film

How the seventh art went from magic lanterns to state-of-the-art computer-generated imagery in 100 years. Written and collated by Maria Popova.

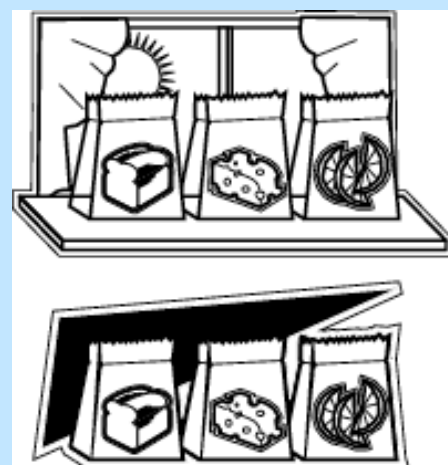
<http://www.brainpickings.org/index.php/2012/05/18/100-ideas-that-changed-film/>

Brain Pickings is a free interesting weekly digest. It comes out on Sundays and offers articles across art, science, design, history, and the usual miscellanea, alongside short highlights from other notable reads.

Sign up for free delivery.

Food and Mould

A resource that gives lesson plans, experiments and knowledge about knowing how molds grow on and affect the foods you eat can help you protect that food, and prevent or slow down the damage caused by molds.



<http://www.teachervision.fen.com/mold/lesson-plan/63832.html>

Using 08m2 picaxe

Thanks to Steve Jeffares
studnet vibrobot tank

<http://www.youtube.com/watch?v=pByUxmZ3DFg>

About:

<http://ozelecforum.com/viewtopic.php?f=4&t=600>

Techlink update

REMINDER – Don't forget to [sign up to Techlink's monthly Email Alerts](#) and get all the latest Techlink news and updates direct to your inbox.

In May the most popular web pages and directories remain largely unchanged from the previous month. These include the Latest News section, Curriculum Support and Classroom Practice Case Studies. The most downloaded files in May were the Sam Wood Scholarship Report, the spinning LED display Student Showcase and the Technology Curriculum Support 2010.

Ask an expert

Here you have the opportunity to ask any Teacher Education-related questions. Broad categories of questions would include: Curriculum, Assessment, Qualifications, Pedagogy, and Resources. Questions will be directed to the [National Technology PD team](#). Responses will be emailed back to the questioner and posted on the site for general access. www.techlink.org.nz/curriculum-support/Teacher-Education/In-service/Ask-an-expert

New classroom practice case study

Level 1 DVC programme and unit of work Westlake Girls High School
<http://www.techlink.org.nz/Case-studies/Classroom-practice/Graphics/CP1201-Dressing-Table-Design/>

New technologist's practice case study

Functional modelling and 3D printing

TECHNOLOGISTS' PRACTICE	MARCH 2012
MANUFACTURING/PROCESSING TECHNOLOGIES DESIGN IN TECHNOLOGY	YEARS 9-11







SOULO

<http://www.techlink.org.nz/Case-studies/Technological-practice/Materials/Soulo/index.cfm>

Latest t-news out

<http://www.techlink.org.nz/latest-news/index.htm>



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Useful links and resources

Improving Education Outcomes For Pacific Learners

ERO's third national evaluation report looked at how primary and secondary schools engage with Pacific learners and work to lift their achievement.

Unfortunately the results are in line with earlier reports, again showing that schools need to make significant improvements in the ways they respond to Pacific students. There are widely recognised disparities in the education outcomes for these students, but little evidence of substantial changes in the way schools address these differences. We are sure this report will provide some guidance for school leaders.



The report is available at
<http://www.ero.govt.nz/National-Reports/Improving-Education-Outcomes-for-Pacific-Learners-May-2012>

The report includes findings on: the quality of assessment practices, the awareness and use of the *Pasifika Education Plan: 2009-2012*, (Note that the new plan is at the community consultation phase.) initiatives to promote Pasifika student engagement, boards' knowledge of Pasifika, student achievement, schools and Pasifika communities.